

CITY OF AURORA
OTHER POSTEMPLOYMENT BENEFITS PROGRAM

ACTUARIAL VALUATION
AS OF DECEMBER 31, 2015

GASB 45 & GASB 74 DISCLOSURES FOR THE
FISCAL YEAR ENDING DECEMBER 31, 2015

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING
DECEMBER 31, 2016

April 22, 2016

City of Aurora
C/o Linda B. Read, Assistant Director of Finance
44 East Downers Place
Aurora, IL 60505

Re: City of Aurora – December 31, 2015 OPEB Valuation Report

Dear Ms. Read:

We are pleased to present to the City this report of the annual actuarial valuation of the City of Aurora's Other Postemployment Benefits (OPEB) Program. This valuation was performed to determine annual expenses associated with providing OPEB benefits, the current funded status of the Plan, and to provide all necessary schedules required to comply with the Governmental Accounting Standards Board No. 45. This report also includes the schedules related to implementation of Governmental Accounting Standards Board No. GASB 74 measured as of December 31, 2015, which can be found in Appendix 2.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects all applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the City, represent reasonable expectations of anticipated plan experience.

In conducting the valuation, we have relied on personnel and plan design information supplied by the City, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total OPEB liability, net OPEB liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of December 31, 2015. It is our opinion that the assumptions used for this purposes are internally consistent, reasonable, and comply with the requirements under GASB No.74.

The undersigned is familiar with the immediate and long-term aspects of OPEB valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Aurora, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Commissioners of the City of Aurora. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact either Jason or Aimee at 630 620-0200.

Respectfully submitted,

Foster & Foster, Inc.

By: 
Jason L. Franken, FSA, EA, MAAA

By: 
Aimee M. Strickland, FSA, EA, MAAA

By: 
Matt Plachta, ASA, MAAA

Enclosures

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SECTION 1 –Introduction

SECTION 1 - INTRODUCTION EXECUTIVE SUMMARY

The regular annual actuarial valuation of the City of Aurora Other Postemployment Benefits (OPEB) Program, performed as of December 31, 2015, has been completed and the results are presented in this Report. For purposes of this valuation, Medical OPEBs were taken into consideration. The results of this valuation are applicable to the plan/fiscal year ending December 31, 2016.

The following table shows the components of the City's Net OPEB Obligation for FY 2015 under GASB 45, along with a projection of the results for FY 2016:

Valuation Date	12/31/2014	<i>Projected</i> 12/31/2015
Applicable for Fiscal Year Ending	<u>12/31/2015</u>	<u>12/31/2016</u>
Annual Required Contribution	\$ 14,044,926	\$ 16,088,362
As a Percent of Covered Payroll	17.4%	19.9%
Interest on Net OPEB Obligation	\$ 4,928,892	\$ 4,432,896
Adjustment to Annual Required Contribution	<u>(3,743,517)</u>	<u>(3,753,027)</u>
Annual OPEB Cost (Expense)	\$ 15,230,301	\$ 16,768,231
Employer Contributions Made (Actual/Estimated)	(8,058,388)	\$ (8,959,032)
Increase (Decrease) in Net OPEB Obligation	\$ 7,171,913	\$ 7,809,199
Net OPEB Obligation - Beginning of Year	\$ 89,616,216	\$ 96,788,129
Net OPEB Obligation – End of Year	\$ 96,788,129	\$ 104,597,328

SECTION 1 –Introduction

City Funding Policy

The numbers shown above reflect a decision to partially fund the program.

Changes since the Prior Valuation

The following changes have been made since the prior valuation:

- The census data reflects changes in status for the twelve month period since December 31, 2014.
- The annual per capita claims costs have been updated to reflect recent claims experience.
- The premium rates have been updated to use the rates effective for 2016.
- The trend rate assumption has been updated.
- The discount rate for GASB 45 purposes has been updated to 4.58% from 5.50% to maintain consistency with the rate developed for GASB 74.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By: 
Jason L. Franken, FSA, MAAA

By: 
Aimee M. Strickland, FSA, MAAA

SECTION 1 – Introduction

GLOSSARY OF ACTUARIAL TERMS

Actuarial Present Value is the 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:

1. adjusted for the probable financial effect of certain intervening events
2. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
3. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Cost Method is a procedure for determining the 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. The Actuarial Cost Method is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described below) and the Unfunded Accrued (Past Service) Liability.

Total Annual Payroll is the annual rate of pay for the fiscal year prior to the valuation date of all covered members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Normal (Current Year's) Cost is the portion of the Actuarial Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

SECTION 1 – Introduction

Actuarial Accrued Liability is the portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of plan benefits and expenses which is not provided for by future Normal Costs.

Unfunded Actuarial Accrued Liability (UAAL) is a liability which arises when a plan is initially established or improved and such establishment or improvement is applicable to all years of past service. Under the Entry Age Normal Actuarial Cost Method, there is also a new UAAL created each year equal to the actuarial gain or loss for that year.

Annual Required Contribution (ARC) represents the level of employer contribution effort that would be required on a sustained, ongoing basis to:

1. fund the Normal Cost (cost associated with new services received) each year and
2. amortize the total unfunded actuarial liabilities (or funding excess) attributed to past services over a maximum of thirty years.

The ARC is used for accrual accounting purposes, not for funding purposes. It is a basis for the allocation of the employer's projected cost of providing Other Post Employment Benefits (OPEB) over periods that approximate the periods in which the employer receives services from the covered employees. Accordingly, the ARC is used as the foundation on which the measurement of the employer's Annual OPEB Cost is based.

Annual OPEB Cost is equal to the ARC with two required adjustments that, together, are designed to keep accounting and actuarial valuations in sync going forward when an employer has contributed less or more than the ARC in past years. For an employer with no Net OPEB Obligation, the Annual OPEB Cost is equal to the ARC.

Net OPEB Obligation (or asset) is a liability (or asset) recognized in an employer's government-wide statement of net assets, and in the financial statements of proprietary or fiduciary funds,

SECTION 1 – Introduction

that is essentially the cumulative difference between the Annual OPEB Cost determined in accordance with the requirements of Statements 43/45 and the amounts actually contributed in relation to the ARC.

SECTION 2 – Notes to Financial Statements

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

This actuarial valuation involves estimates of the value of reported amounts and assumptions about the probability of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to constant revision as actual experience is compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial liabilities for benefits.

Calculations are based upon the types of benefits provided under the terms of the substantive plan at the time of the valuation and on the pattern of sharing of costs between the employer and plan members to that point. Calculations reflect a long-term prospective, so methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

SECTION 2 – Notes to Financial Statements

For the Actuarial Valuation, the Entry Age actuarial cost method was used. Select Actuarial Assumptions are listed in the table below:

Valuation Interest Rate	4.58%
Health Care Inflation	
Pre-Medicare	8.0% in Fiscal 2016, decreasing 0.75% each year to Fiscal 2020, then decreasing 0.5% to the ultimate rate of 4.5% in Fiscal 2021.
Post-Medicare	8.0% in Fiscal 2016, decreasing 0.75% each year to Fiscal 2020, then decreasing 0.5% to the ultimate rate of 4.5% in Fiscal 2021.
Payroll Growth Assumption	3.80% per year.
Inflation Assumption	3.00% per year
Salary Scale Assumption	3.80% per year
Amortization of UAAL	Level Percentage of Payroll (Open Amortization over 30 Years)

SECTION 2 – Notes to Financial Statements

Employee and City Contribution Information

The City of Aurora's Retiree Health Care Plan (Plan) is a single-employer defined benefit postemployment health care plan that covers eligible retired employees of the City. The Plan, which is administered by the City, allows employees who retire and meet retirement eligibility requirements under one of the City's retirement plans to continue medical and dental coverage as a participant in the City's plan. The benefits provided are the same as those provided for active employees. Spouses and dependents of eligible retirees are also eligible for medical coverage. All employees of the City are eligible to receive postemployment health care benefits. Coverage for retirees and their spouses and dependents is provided for life. The Trust was established to advance fund benefits provided under the Plan.

Under the terms of the Plan, pursuant to City policy and collective bargaining unit agreements, the Retired plan members and beneficiaries currently receiving benefits are required to contribute specified amounts monthly toward the cost of health insurance premiums. Retirees generally contribute 22% to 40% of the actuarially determined premium, with the City contributing the remainder of the cost. The City has begun to phase in higher premiums and service requirements for newly hired employees (hired after 1/1/2014). If these new requirements are not met, then a retiree is entitled to coverage but must pay 100% of the premium. At age 65, the medical premium is frozen.

Dental coverage is paid for by the employee/retiree at 100% of the premium. We have assumed that the projected dental premiums are sufficient to cover the cost of the program.

In future years, contributions are assumed to increase at the same rate as premiums, until a retiree reaches age 65.

SECTION 2 – Notes to Financial Statements

SECTION 2 – NOTES TO FINANCIAL STATEMENTS

Valuation Date	12/31/2014	<i>Projected</i> 12/31/2015
Applicable for Fiscal Year Ending	<u>12/31/2015</u>	<u>12/31/2016</u>
Annual Required Contribution	\$ 14,044,926	\$ 16,088,362
Interest on Net OPEB Obligation	4,928,892	4,432,896
Adjustment to Annual Required Contribution	<u>(3,743,517)</u>	<u>(3,753,027)</u>
Annual OPEB Cost/(Expense)	\$ 15,230,301	\$ 16,768,231
Employer Contributions Made (Actual/Estimated)	(8,058,388)	(8,959,032)
Anticipated Increase/(Decrease) in Net OPEB Obligation	\$ 7,171,913	\$ 7,809,199
Net OPEB Obligation - Beginning of Year	\$ 89,616,216	96,788,129
Final Net OPEB Obligation - End of Year	\$ 96,788,129	\$ 104,597,328
Funded Status as of Valuation Date:	<u>12/31/2014</u>	<u>12/31/2015</u>
Actuarial Accrued Liability (AAL)	\$ 218,733,181	\$ 255,568,641
Actuarial Value of Assets (AVA)	<u>33,287,416</u>	<u>34,685,258</u>
Unfunded Actuarial Accrued Liability (UAAL)	\$ 185,445,765	\$ 220,883,383
Funded Ratio	15.2%	13.6%
Covered Payroll	\$ 74,988,337	\$ 80,907,445
Ratio of UAAL to Covered Payroll	247.3%	273.0%

SECTION 2 – Notes to Financial Statements

Notes (continued)

Three Year Trend Information

<u>Year Ending</u>	<u>Annual OPEB Cost</u>	<u>Actual Contributions</u>	<u>Percentage Contributed</u>	<u>Net OPEB Obligation</u>
12/31/2015	15,230,301	8,058,388	52.9%	96,788,129
12/31/2014	13,904,908	7,437,793	53.5%	89,616,216
12/31/2013	14,714,208	6,116,378	41.6%	83,149,101

Schedule of Funding Progress

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Accrued Liability (AAL) (b)</u>	<u>Unfunded AAL (UAAL) (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a % of Covered Payroll ((b-a)/c)</u>
12/31/2015	34,685,258	255,568,641	220,883,383	13.6%	80,907,445	273.0%
12/31/2014	33,287,416	218,733,181	185,445,765	15.2%	74,988,337	247.3%
12/31/2013	30,403,650	206,706,028	176,302,378	14.7%	67,057,641	262.9%
12/31/2012	26,735,905	197,518,139	170,782,234	13.5%	72,083,003	236.9%
12/31/2011	24,199,774	165,542,261	141,342,487	14.6%	65,237,549	216.7%
12/31/2010	24,193,191	172,968,000	148,774,809	14.0%	64,712,359	229.9%

SECTION 3 - Development of Annual OPEB Expense

SECTION 3 - DEVELOPMENT OF ANNUAL OPEB EXPENSE

Valuation Date	12/31/2014	12/31/2015
Applicable for Fiscal Year Ending	<u>12/31/2015</u>	<u>12/31/2016</u>
<i>Unfunded Actuarial Accrued Liability</i>		
Actuarial Accrued Liability	\$ 218,733,181	\$ 255,568,641
Actuarial Value of Assets	<u>33,287,416</u>	<u>34,685,258</u>
Unfunded Actuarial Accrued Liability	\$ 185,445,765	\$ 220,883,383
<i>Amortization Amount</i>		
Amortization Period	30	30
Amortization Method	Open	Open
Discount Rate	5.50%	4.58%
Payroll Growth Rate	3.80%	3.80%
Total Amortization Amount	\$ 7,736,561	\$ 8,189,814
<i>Development of Annual Required Contribution (ARC)</i>		
Normal Cost Component	\$ 6,308,365	\$ 7,523,455
Amortization Component	\$ 7,736,561	\$ 8,564,907
Annual Required Contribution	\$ 14,044,926	\$ 16,088,362
As of Percent of Covered Payroll	17.4%	19.9%
<i>Development of Annual OPEB Cost</i>		
Annual Required Contribution	\$ 14,044,926	\$ 16,088,362
Net OPEB Obligation, Beginning of Year	\$ 89,616,216	\$ 96,788,129
Discount Rate	5.50%	4.58%
Interest on Net OPEB Obligation	\$ 4,928,892	\$ 4,432,896
Adjustment to Annual Required Contribution	\$ (3,743,517)	\$ (3,753,027)
Annual OPEB Cost	\$ 15,230,301	\$ 16,768,231

SECTION 4 – Reconciliation of Unfunded Actuarial Accrued Liability

SECTION 4 - RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

(1) Expected Unfunded Actuarial Accrued Liability as of December 31, 2014	\$185,445,765
(2) Expected Normal Cost developed as of December 31, 2014	6,308,365
(3) Expected Administrative Expenses for Fiscal 2016	0
(4) Interest on (1) and (2) and (3)	10,546,477
(5) Actual Sponsor Contributions to the System during the period of December 31, 2014 through December 31, 2015	8,058,388
(6) Interest on (5)	218,640
(7) Expected Unfunded Accrued Liability as of December 31, 2015 (1)+(2)+(3)+(4)-(5)-(6)	\$194,023,579
(8) Unfunded Accrued Liability as of December 31, 2015	220,883,383
(9) Change to UAAL due to Actuarial (Gain)/Loss (8)-(7)	\$26,859,804

SECTION 5 - Trust Fund

SECTION 5 – TRUST FUND

City of Aurora Retiree Health Insurance Fund

Fiscal Year Ending	12/31/2015	12/31/2014
(1) Asset Balance as of January 1	\$ 33,287,416	\$ 30,403,650
(2) Contributions During the Year		
Employer	\$ 8,058,388	\$ 7,437,793
Retirees	-	2,033,649
Total	\$ 8,058,388	\$ 9,471,442
(3) Payments During the Year		
Retiree Healthcare Benefits	\$ 7,477,497	\$ 8,212,970
Administrative Expenses	14,473	13,357
Total	\$ 7,491,970	\$ 8,226,327
(4) Investment Return		
Asset Earnings	\$ 924,260	\$ 1,704,580
Investment Expenses	92,836	65,929
Total	\$ 831,424	\$ 1,638,651
(5) Asset Balance as of December 31	\$ 34,685,258	\$ 33,287,416
(6) Rate of Investment Return (net of administrative expenses)	2.5%	5.3%

SECTION 6 – Per Capita Claims Costs and Contribution Amounts

SECTION 6 - PER CAPITA CLAIMS COSTS AND CONTRIBUTION AMOUNTS

2016 Per Capita Annual Claims Costs Per Participant

<u>Age</u>	<u>Per Member Cost</u>
40	\$ 5,138
45	6,250
50	7,603
55	9,250
60	11,254
65	4,979
70	5,771
75	6,690
80	7,386
85	8,156

2016 Annual Premium Amounts

	<u>Annual Rate</u>
Single	\$ 7,973
Single + 1	\$ 19,932
Family	\$ 27,905

SECTION 7 – Member Statistics

SECTION 7 - MEMBER STATISTICS

STATISTICAL DATA

	<u>As of 12/31/2015</u>
Number of Active Participants	
Eligible for Retiree Health Benefits	91
Not Yet Eligible for Retiree Health Benefits	849
Total	<u>940</u>
Average Current Age of Actives	44.3
Average Age at Employment	30.5
Average Past Service	13.8
Covered Payroll	\$ 80,907,445
Average Salary	86,072
Number of Inactives Enrolled in Health Care	
Retirees, Beneficiaries and Disabled Members	502
Dependent Spouses	306
Total	<u>808</u>
Average Current Age of Inactives	65.2

SECTION 7 – Member Statistics

AGE AND SERVICE DISTRIBUTION

AGE	TOTAL PAST SERVICE										Total
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
20 - 24	8	17	0	0	0	0	0	0	0	0	25
25 - 29	14	43	14	2	0	0	0	0	0	0	73
30 - 34	10	25	38	23	3	0	0	0	0	0	99
35 - 39	5	11	35	45	15	2	0	0	0	0	113
40 - 44	3	9	19	49	60	22	1	0	0	0	163
45 - 49	1	9	14	21	57	51	25	0	0	0	178
50 - 54	2	6	4	13	33	35	44	3	1	0	141
55 - 59	2	11	16	7	23	15	10	4	0	0	88
60 - 64	0	4	3	8	13	8	2	2	0	0	40
65+	1	3	3	2	6	3	1	1	0	0	20
Total	46	138	146	170	210	136	83	10	1	0	940

SECTION 8 - Actuarial Assumptions and Funding Methods

SECTION 8 - ACTUARIAL ASSUMPTIONS AND FUNDING METHODS

Actuarial Assumptions

<u>Valuation/Measurement Date</u>	December 31, 2015.
<u>Fiscal Year End</u>	December 31.
<u>Actuarial Value of Assets</u>	Market Value.
<u>Mortality Rate</u>	
IMRF	RP-2000 Combined Healthy Mortality Table, projected to the valuation date with Scale AA.
Police & Fire	RP-2000 Mortality Table with Blue Collar Adjustment, projected to the valuation date.
Disabled	RP-2000 Disabled Mortality Table, projected to the valuation date.
<u>Interest Rate</u>	4.58% per year, compounded annually, net of investment related expenses. See Appendix 3 for additional information.
<u>Retirement Rates</u>	See Table 1 below.
<u>Payroll Growth</u>	3.80% per year.
<u>Inflation</u>	3.00% per year.
<u>Salary Increase</u>	3.80% per year.
<u>Administrative Expenses</u>	No additional expenses added to Normal Cost.
<u>Marital Status</u>	100% assumed married, with male spouses 3 years older than female spouses.

SECTION 8 - Actuarial Assumptions and Funding Methods

Assumptions (Continued)

<u>Health Care Participation</u>	100% participation assumed, with 100% electing spouse coverage.
<u>Health Care Inflation</u> Pre-Medicare	8.0% in Fiscal 2016, decreasing 0.75% each year to Fiscal 2020, then decreasing 0.5% to the ultimate rate of 4.5% in Fiscal 2021.
Post-Medicare	8.0% in Fiscal 2016, decreasing 0.75% each year to Fiscal 2020, then decreasing 0.5% to the ultimate rate of 4.5% in Fiscal 2021.
<u>Termination Rates</u>	See Table 2 below.
<u>Disability Rates</u>	IMRF - None. Police & Fire – See Table 3 below.
<u>Medical Aging Factors</u>	4% per year prior to age 65; 3% per year between ages 65 and 75; 2% per year between ages 75 and 85; 0% per year thereafter.
<u>Health Claims</u>	Developed using a 50/50 blend of Manual rates and age-adjusted premium rates.
Funding Method	Entry Age Cost Method (Level Percentage of Pay)

SECTION 8 - Actuarial Assumptions and Funding Methods

Table 1 - Retirement Rates

Age	IMRF				Police	Fire
	Male	Male w/ 35+ yrs under 60	Female	Female w/ 35+ yrs under 60		
50	0%		0%		20%	14%
51	0%		0%		20%	14%
52	0%		0%		20%	14%
53	0%		0%		20%	14%
54	0%		0%		20%	20%
55	7%	33%	6%	27%	25%	20%
56	8%	10%	6%	7%	25%	20%
57	9%	10%	7%	8%	25%	20%
58	10%	11%	8%	8%	25%	20%
59	10%	11%	8%	9%	25%	20%
60	12%		10%		33%	25%
61	10%		9%		33%	25%
62	12%		10%		33%	25%
63	15%		14%		50%	33%
64	20%		18%		50%	33%
65	25%		23%		50%	50%
66	20%		18%		50%	50%
67	20%		18%		50%	50%
68	20%		18%		50%	50%
69	20%		18%		50%	50%
70	20%		18%		100%	100%
71	20%		18%		100%	100%
72	20%		18%		100%	100%
73	20%		18%		100%	100%
74	20%		18%		100%	100%
75	100%		100%		100%	100%

SECTION 8 - Actuarial Assumptions and Funding Methods

Table 2 - Termination Rates

IMRF									
Age	Male			Age	Female			Police	Fire
	Ultimate Rate	Years of Service	Select Rate		Ultimate Rate	Years of Service	Select Rate		
16	5.30%			16	7.20%			0.00%	9.00%
17	5.30%	0	17.90%	17	7.20%	0	24.61%	0.00%	9.00%
18	5.30%	1	16.32%	18	7.20%	1	22.44%	0.00%	9.00%
19	5.30%	2	14.74%	19	7.20%	2	20.27%	0.00%	9.00%
20	5.30%	3	13.16%	20	7.20%	3	18.10%	10.00%	9.00%
21	5.30%	4	11.58%	21	7.20%	4	15.92%	10.00%	5.00%
22	5.30%	5	10.00%	22	7.20%	5	13.50%	10.00%	5.00%
23	5.30%	6	8.42%	23	7.20%	6	11.58%	10.00%	5.00%
24	5.30%	7	6.84%	24	7.20%	7	9.41%	10.00%	5.00%
25	5.30%			25	7.20%		8.50%	7.50%	5.00%
26	5.10%			26	7.00%			6.25%	2.50%
27	4.80%			27	6.80%			6.25%	2.50%
28	4.60%			28	6.50%			5.00%	2.50%
29	4.30%			29	6.30%			5.00%	2.50%
30	4.10%			30	6.10%			5.00%	2.50%
31	3.90%			31	5.90%			5.00%	2.00%
32	3.80%			32	5.60%			4.00%	2.00%
33	3.60%			33	5.40%			4.00%	2.00%
34	3.50%			34	5.10%			4.00%	1.00%
35	3.30%			35	4.90%			3.00%	1.00%
36	3.20%			36	4.70%			3.00%	1.00%
37	3.10%			37	4.50%			3.00%	1.00%
38	2.90%			38	4.30%			2.00%	1.00%
39	2.80%			39	4.10%			2.00%	1.00%
40	2.70%			40	3.90%			2.00%	1.00%
41	2.60%			41	3.80%			2.00%	1.00%
42	2.50%			42	3.60%			2.00%	1.00%
43	2.50%			43	3.50%			2.00%	1.00%
44	2.40%			44	3.30%			2.00%	1.00%
45	2.30%			45	3.20%			2.00%	1.00%
46	2.20%			46	3.10%			2.00%	1.00%
47	2.20%			47	3.00%			2.00%	1.00%
48	2.10%			48	2.90%			2.00%	1.00%
49	2.10%			49	2.80%			2.00%	1.00%
50	2.00%			50	2.70%			3.50%	1.00%
51	1.60%			51	2.20%			3.50%	1.00%
52	1.20%			52	1.60%			3.50%	1.00%
53	0.80%			53	1.10%			3.50%	1.00%
54	0.40%			54	0.50%			3.50%	1.00%
55	0.00%			55	0.00%			3.50%	1.00%
56	0.00%			56	0.00%			3.50%	1.00%
57	0.00%			57	0.00%			3.50%	1.00%
58	0.00%			58	0.00%			3.50%	1.00%
59	0.00%			59	0.00%			3.50%	1.00%
60	0.00%			60	0.00%			3.50%	1.00%
61	0.00%			61	0.00%			3.50%	1.00%
62	0.00%			62	0.00%			3.50%	1.00%
63	0.00%			63	0.00%			3.50%	1.00%
64	0.00%			64	0.00%			3.50%	1.00%
65	0.00%			65	0.00%			3.50%	1.00%
66	0.00%			66	0.00%			3.50%	1.00%
67	0.00%			67	0.00%			3.50%	1.00%
68	0.00%			68	0.00%			3.50%	1.00%
69	0.00%			69	0.00%			3.50%	1.00%

SECTION 8 - Actuarial Assumptions and Funding Methods

Table 3 - Disability Rates

<u>Age</u>	<u>Police</u>	<u>Fire</u>	<u>Age</u>	<u>Police</u>	<u>Fire</u>
20	0.05%	0.10%	45	0.65%	0.65%
21	0.05%	0.10%	46	0.70%	0.68%
22	0.05%	0.10%	47	0.75%	0.71%
23	0.05%	0.10%	48	0.80%	0.74%
24	0.05%	0.10%	49	0.85%	0.77%
25	0.05%	0.10%	50	0.95%	1.00%
26	0.05%	0.10%	51	1.02%	1.10%
27	0.20%	0.14%	52	1.09%	1.20%
28	0.20%	0.14%	53	1.16%	1.30%
29	0.20%	0.14%	54	1.23%	1.40%
30	0.22%	0.14%	55	1.30%	1.50%
31	0.22%	0.20%	56	1.37%	2.00%
32	0.24%	0.23%	57	1.44%	2.25%
33	0.24%	0.26%	58	1.51%	2.50%
34	0.26%	0.29%	59	1.58%	2.75%
35	0.26%	0.35%	60	1.65%	3.00%
36	0.28%	0.38%	61	1.72%	3.25%
37	0.28%	0.41%	62	1.79%	3.50%
38	0.30%	0.44%	63	1.86%	3.75%
39	0.35%	0.47%	64	1.93%	4.00%
40	0.40%	0.50%	65	2.00%	4.25%
41	0.45%	0.53%	66	2.00%	4.25%
42	0.50%	0.56%	67	2.00%	4.25%
43	0.55%	0.59%	68	2.00%	4.25%
44	0.60%	0.62%	69	2.00%	4.25%

SECTION 8 - Actuarial Assumptions and Funding Methods

DISCUSSION OF CENSUS DATA AND ASSUMPTIONS

1. Census Data – We received December 31, 2015 census data from City personnel. The data was substantially similar to data used in the previous year’s valuation. No material modifications were made to the data.
2. Health Cost and Enrollment Data – City personnel provided claims experience for the medical plan for calendar years 2011 through 2015. Enrollment information was provided in the census data received for 2015.
3. Asset information was provided by the City via a draft copy of the 2015 financial statements for the trust.
4. Actuarial Assumptions and Methods –
 - a. Demographic Assumptions
 - i. Mortality rates are deemed reasonable and reflect mortality improvements. They are a best estimate given limited plan experience. We will continue to monitor the impact of mortality.
 - ii. Retirement rates, termination and disability rates are deemed reasonable and will continue to be monitored to ensure they capture plan experience.
 - iii. The participation rate and spousal coverage election percentage are the same as the previous valuation. They are deemed reasonable and will continue to be monitored.
 - b. Other Assumptions
 - i. The trend rate schedule has been updated. The initial health care inflation rate is higher than the prior schedule would have used, but the ultimate rate of 4.5% is slightly lower. These rates are based on recent healthcare trend rate surveys.
 - ii. The interest rate (i.e. investment return) has been updated to 4.58% from 5.50%. Since the plan is funded, this assumption is the same rate used for GASB 74 purposes based on the results of the crossover test.

SECTION 8 - Actuarial Assumptions and Funding Methods

- c. Funding Method -The valuation results were calculated using the Entry Age cost method. This method is one of six permitted methods under the current GASB 43/45 standards. Under the forthcoming GASB 74/75 standards, Entry Age Normal will be required.
- d. Amortization Methodology – The payroll growth assumption remains unchanged at 3.80%. The unfunded actuarial accrued liability is amortized on an open 30-year (level percentage of payroll) amortization basis, which is permitted under the current GASB 45 standard. The maximum amortization period allowed by GASB is 30 years.

SECTION 9 – Summary of Plan Provisions

SECTION 9 - SUMMARY OF PLAN PROVISIONS

<u>Credited Service</u>	Total completed years of employment with the City.
<u>Eligibility for Insurance Coverage</u>	Must be eligible to retire under one of the City's retirement plans.
<u>Health Care Insurance</u>	Retirees and their dependents who meet the eligibility requirements above are eligible for health benefits payable for life.
<u>Health Contributions</u>	<p>Retirees hired prior to January 1, 2014 pay a portion of the premium each year based on City policies and Collective Bargaining Agreements. Retirees generally contribute an amount between 23% to 40% of the total premium.</p> <p>Retirees hired on or after January 1, 2014 pay 100% of the premium.</p>
<u>Disabled Retirees</u>	For certain disabled employees who qualify under the Public Safety Employee Benefits Act (PSEBA), the City is required to pay 100% of the cost of basic health insurance for retirees and their dependents for their lifetime.

APPENDIX 1 – Annual Required Contribution by Fund

APPENDIX 1 – ANNUAL REQUIRED CONTRIBUTION BY FUND

ANNUAL REQUIRED CONTRIBUTION FOR FISCAL YEAR ENDING DECEMBER 31, 2016

<u>Fund Number</u>	<u>Actuarial Liability</u>	<u>Normal Cost Plus Interest</u>	<u>Amortization Amount Plus Interest</u>	<u>Annual Required Contribution</u>
1002	\$ 501,179	\$ 31,112	\$ 16,796	\$ 47,908
1004	2,768,659	107,949	92,786	200,735
1010	194,235	0	6,509	6,509
1102	1,029,296	21,870	34,495	56,365
1202	342,032	17,997	11,463	29,460
1220	1,186,491	27,387	39,763	67,150
1221	320,052	0	10,726	10,726
1230	547,958	9,905	18,364	28,269
1231	147,511	12,214	4,944	17,158
1232	1,681,994	65,334	56,369	121,703
1233	549,970	44,512	18,431	62,943
1240	100,209	8,350	3,358	11,708
1302	611,686	19,144	20,500	39,644
1314	925,985	24,959	31,033	55,992
1330	602,205	11,461	20,182	31,643
1340	434,403	32,210	14,558	46,768
1341	180,342	6,713	6,044	12,757
1360	187,890	5,646	6,297	11,943
1370	429,073	10,654	14,380	25,034
1702	168,999	13,969	5,664	19,633
1710	949,088	35,343	31,807	67,150
1715	253,032	7,477	8,480	15,957
1716	347,197	13,453	11,636	25,089
1727	4,364,132	110,900	146,256	257,156
1745	859,737	52,341	28,812	81,153
1765	211,332	6,701	7,082	13,783
1802	1,535,187	14,047	51,449	65,496
1810	391,769	2,193	13,129	15,322
1820	3,146,057	114,770	105,434	220,204
1830	180,556	5,597	6,051	11,648
1840	811,809	36,194	27,206	63,400

APPENDIX 1 – Annual Required Contribution by Fund

Fund Number	Actuarial Liability	Normal Cost Plus Interest	Amortization Amount Plus Interest	Annual Required Contribution
2502	\$ 473,839	\$ 11,988	\$ 15,880	\$ 27,868
2521	1,961,843	63,169	65,748	128,917
2522	314,492	5,676	10,540	16,216
2523	1,305,653	45,272	43,757	89,029
2526	1,142,736	23,454	38,297	61,751
2533	205,311	19,197	6,881	26,078
2560	1,683,670	67,685	56,425	124,110
3033	75,653,405	2,268,344	2,535,383	4,803,727
3038	215,893	5,713	7,235	12,948
3536	96,620,483	2,801,074	3,238,056	6,039,130
3537	4,052,968	125,342	135,828	261,170
4002	313,332	10,837	10,501	21,338
4020	1,777,192	33,386	59,559	92,945
4040	4,643,125	119,052	155,606	274,658
4058	7,706,037	216,311	258,253	474,564
4062	948,184	0	31,777	31,777
4063	8,455,368	228,274	283,366	511,640
4402	930,818	11,969	31,195	43,164
4430	891,643	52,818	29,882	82,700
4431	4,128,830	122,328	138,370	260,698
4432	1,002,059	5,071	33,582	38,653
4433	708,986	33,066	23,760	56,826
4434	390,018	21,076	13,071	34,147
4440	2,953,702	83,652	98,988	182,640
4441	428,696	19,111	14,367	33,478
4442	727,064	14,850	24,366	39,216
4443	823,233	13,055	27,589	40,644
4460	9,149,996	231,283	306,641	537,924
Total	\$ 255,568,641	\$ 7,523,455	\$ 8,564,907	\$ 16,088,362

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

APPENDIX 2 – GASB 74 DISCLOSURES FOR FYE 2015

STATEMENT OF FIDUCIARY NET POSITION DECEMBER 31, 2015

<u>ASSETS</u>	MARKET VALUE
Cash and Short-Term Investments	1,768,127
Receivables:	
Accounts Receivable	144,036
Accrued Interest	74,390
Prepaid Expenses	3,442
Total Receivable	221,868
Investments:	
Fixed Income Securities	12,907,928
Domestic Equity Securities	15,913,482
International Equity Services	3,894,922
Real Estate Investment Trusts	1,139,118
Total Investments	33,855,450
Total Assets	35,845,445
<u>LIABILITIES</u>	
Payables:	
Accounts Payable	551
Unearned Revenue	64,818
Claims Payable	1,091,671
Due to the Primary Government	3,147
Total Liabilities	1,160,187
NET POSITION RESTRICTED FOR POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS	34,685,258

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED DECEMBER 31, 2015 Market Value Basis

ADDITIONS

Contributions:

Employer Contributions	8,058,388	
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Total Contributions		8,058,388
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Investment Income:

Net Increase in Fair Value of Investments	369,654	
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Interest & Dividends	554,606	
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Less Investment Expense ¹	(92,836)	
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Net Investment Income		831,424
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Total Additions		8,889,812
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DEDUCTIONS

Health Insurance Benefits	7,477,497	
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Total Distributions		7,477,497
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Administrative Expense		14,473
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Total Deductions		7,491,970
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Net Increase in Net Position		1,397,842
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NET POSITION RESTRICTED FOR POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

Beginning of the Year		33,287,416
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End of the Year		34,685,258
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APPENDIX 2 – GASB 74 Disclosure for FYE 2015

NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended December 31, 2015)

Plan Description

Plan Administration

The City of Aurora’s Retiree Health Care Plan (Plan) is a single-employer defined benefit postemployment health care plan that covers eligible retired employees of the City. The Plan, which is administered by the City, allows employees who retire and meet retirement eligibility requirements under one of the City’s retirement plans to continue medical and dental coverage as a participant in the City’s plan.

Plan Membership as of December 31, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	502
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	-
Active Plan Members	940
	<hr/>
	1,442
	<hr/>

Benefits Provided

The benefits provided are the same as those provided for active employees. Spouses and dependents of eligible retirees are also eligible for medical coverage. All employees of the City are eligible to receive postemployment health care benefits. Coverage for retirees and their spouses and dependents is provided for life. The Trust was established to advance fund benefits provided under the Plan.

Eligibility for Insurance Coverage:

Must be eligible to retire under one of the City’s retirement plans.

Health Care Insurance:

Retirees and their dependents who meet the eligibility requirements above are eligible for health benefits payable for life.

Health Contributions:

Retirees hired prior to January 1, 2014 pay a portion of the premium each year based on City policies and Collective Bargaining Agreements. Retirees generally contribute an amount between 23% to 40% of the total premium.

Retirees hired on or after January 1, 2014 pay 100% of the premium.

Disabled Retirees:

For certain disabled employees who qualify under the Public Safety Employee Benefits Act (PSEBA), the City is required to pay 100% of the cost of basic health insurance for retirees and their dependents for their lifetime.

Contributions

members and beneficiaries currently receiving benefits are required to contribute specified amounts monthly toward the cost of health insurance premiums. Retirees generally contribute 22% to 40% of the actuarially determined premium, with the City contributing the remainder of the cost. The City has begun to phase in higher premiums and service requirements for newly hired employees (hired after 1/1/2014). If these new requirements are not met, then a retiree is entitled to coverage but must pay 100% of the premium. At age 65, the medical premium is frozen.

Dental coverage is paid for by the employee/retiree at 100% of the premium.

In future years, contributions are assumed to increase at the same rate as premiums, until a retiree reaches age 65.

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of December 31, 2015:

<u>Asset Class</u>	<u>Target Allocation</u>
US Equity	40%
International Equity	10%
Real Estate	5%
US Fixed Income	45%
<u>Total</u>	<u>100%</u>

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended December 31, 2015, the annual money-weighted rate of return on investments, net of investment expense, was 2.57 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

NET OPEB LIABILITY OF THE SPONSOR

The components of the Net OPEB Liability of the Sponsor on December 31, 2015 were as follows:

Total OPEB Liability	\$ 255,568,641
Plan Fiduciary Net Position	<u>(34,685,258)</u>
Sponsor's Net OPEB Liability	<u>\$ 220,883,383</u>

Plan Fiduciary Net Position as a percentage of the Total OPEB Liability 13.57%

Actuarial Assumptions:

The Total OPEB Liability was determined by an actuarial valuation as of December 31, 2015 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	3.80%
Discount Rate	4.58%
Investment Rate of Return	7.70%
Healthcare cost trend rates	4.50% -8.00%

The Long-Term Expected Rate of Return on OPEB Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of December 31, 2015 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
US Equity	7.5%
International Equity	8.5%
Real Estate	4.5%
US Fixed Income	2.5%

Discount Rate:

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member and Sponsor contributions will be made at the current contribution rate. Based on those assumptions, the OPEB Plan's Fiduciary Net Position was projected to provide future benefit payments for 25 years.

These payments were discounted using a discount rate of 7.70%. Future benefits payments beyond 25 years were discounted using a high quality municipal bond rate of 3.57%.

The high quality municipal bond rate was based on the week closest to, but not later than, the measurement date of the Bond Buyer 20-Bond Index as published by the Federal Reserve.

The single equivalent discount rate was 4.58%.

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

Sensitivity of the net OPEB Liability to changes in the Discount Rate:

The following presents the net OPEB Liability of the Sponsor, as well as what the Sponsor's net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount

	1% Decrease 3.58%	Current Discount Rate 4.58%	1% Increase 5.58%
Net OPEB Liability (asset)	\$ 282,230,680	\$ 220,883,383	\$ 193,304,386

Sensitivity of the net OPEB Liability to changes in the Healthcare Cost Trend Rates:

The following presents the net OPEB Liability of the Sponsor, as well as what the Sponsor's net OPEB Liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	1% Decrease 3.50% - 7.00%	Healthcare Cost Trend Rates 4.50% -8.00%	1% Increase 5.50% - 9.00%
Net OPEB Liability (asset)	\$ 174,913,003	\$ 220,883,383	\$ 281,264,426

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

SCHEDULE OF CHANGES IN THE SPONSOR'S NET OPEB LIABILITY AND RELATED RATIOS

Last 10 Years

	<u>12/31/2015</u>
Total OPEB Liability	
Service Cost	\$ 6,878,917
Interest	11,356,166
Changes of benefit terms	-
Differences between Expected and Actual Experience	-
Changes of assumptions	-
Benefit Payments	<u>(7,477,497)</u>
Net Change in Total OPEB Liability	\$ 10,757,586
Total OPEB Liability - Beginning	<u>244,811,055</u>
Total OPEB Liability - Ending (a)	<u><u>\$ 255,568,641</u></u>
Plan Fiduciary Net Position	
Contributions - Employer	8,058,388
Net Investment Income	831,424
Benefit Payments	(7,477,497)
Administrative Expense	<u>(14,473)</u>
Net Change in Plan Fiduciary Net Position	\$ 1,397,842
Plan Fiduciary Net Position - Beginning	<u>33,287,416</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$ 34,685,258</u></u>
Sponsor's Net OPEB Liability - Ending (a) - (b)	<u><u>\$ 220,883,383</u></u>
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	13.57%
Covered Employee Payroll	\$ 80,907,445
Sponsor's Net OPEB Liability as a percentage of Covered Employee Payroll	273.01%

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

SCHEDULE OF SPONSOR CONTRIBUTIONS

Last 10 Years

	<u>12/31/2015</u>
Actuarially Determined Contribution	14,044,926
Contributions in relation to the Actuarially Determined Contributions	<u>8,058,388</u>
Contribution Deficiency (Excess)	<u>\$ 5,986,538</u>

Covered Employee Payroll	\$ 80,907,445
Contributions as a percentage of Covered Employee Payroll	9.96%

Notes to Schedule

Valuation Date: 12/31/2014
Actuarially determined contribution rates are calculated as of December 31, prior to the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method: The entry age normal actuarial cost method was used for the December 31, 2014 valuation. Under this method, the actuarial present value of the projected benefits of each individual included in the December 31, 2014 valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age.

Interest Rate Assumption: Some assets have been accumulated under a retiree health insurance fund and the plan is partially funded. Therefore, based on the provisions of GASB No.45, an interest rate of 5.5% have been used in performing the actuarial valuation of December 31, 2014.

Medical Trend Rate Assumption: The medical trend rate assumption starts at 7.5% in 2016 and gradually declines to 5.0% by the year 2021 as follows:

<u>Year</u>	<u>Medical Trend</u>
2016	7.5%
2017	7.0%
2018	6.5%
2019	6.0%
2020	5.5%
2021 and later	5.0%

Participation Rate: 100% of current active employees assumed to participate in the retiree health insurance plan.

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

Mortality Rates:

The RP-2000 Combined Mortality Table projected to 2014, was used for IMRF active employees and pensioners. The RP-2000 Mortality Table with Blue Collar Adjustment, projected to 2014, was used for active and retired police officers and firefighters. The RP-2000 Disabled Mortality Table, projected to 2014, was used for disabled police officers and firefighters.

Per Retiree Monthly Costs:

The percent increases in health care costs by age that are shown in Table 4 of the study Aging Curves for Health Care Costs in Retirement, by Jeffrey P. Petertil, published in the July 2005 issue of the North American Actuarial Journal are as follows:

Age Band	Representative One Year Aging Factor
50-54	3.3%
55-59	3.6%
60-64	4.2%
65-69	3.0%
70-74	2.5%
75-79	2.0%
80-84	1.0%
85-89	0.5%
90 and over	0.0%

Applying the above rates of increases in health care costs by age, the costs per retiree were developed by five-year age groups that were equivalent to the above average costs per participant. The costs per retiree by five-year age groups were developed so the total of the age-adjusted costs was equal to the total of the average costs.

Using the above approach and taking into account the number of participants in each plan, the following age adjusted total monthly total costs per retiree under the plan were developed, including the cost of dependent coverage:

Age Band	Age - Adjusted Total Monthly Cost
50-54	\$1,562.76
55-59	\$1,851.58
60-64	\$2,241.87
65-69	\$725.45
70-74	\$830.83
75-79	\$928.59
80-84	\$1,000.29
85 and over	\$1,038.35

APPENDIX 2 – GASB 74 Disclosure for FYE 2015

Termination Rates:

For IMRF employees higher rates of termination were used during the first 8 years of employment. The following is a sample of the termination rates that were used in the 2014 Valuation:

<u>Rate of Termination</u>	
<u>Years of Service</u>	<u>IMRF Employees</u>
0	0.1790
4	0.1158
7	0.0684

<u>Age</u>	<u>IMRF</u>		
	<u>Employees</u>	<u>Police</u>	<u>Firefighters</u>
25	0.0530	0.0750	0.0500
30	0.0410	0.0500	0.0250
35	0.3300	0.0300	0.0200
40	0.2700	0.0200	0.0100
45	0.2300	0.0200	0.0100
50	0.0200	0.0350	0.0100

Retirement Rates:

In the 2014 valuation, for police, rates of retirement for each age from 50 to 70 were used. For firefighters, rates of retirement for each age from 50 to 70 were used. For general employees, rates of retirement for each age from 55 to 70 were used. Higher rates are used for general employees with 35 or more years of service aged 55-59. The following is a sample of the retirement rates that were used:

<u>Rate of Retirement</u>			
<u>Age</u>	<u>IMRF</u>	<u>Police</u>	<u>Firefighters</u>
50		0.2000	0.1400
55	0.7250	0.2500	0.2000
60	0.1200	0.3300	0.2500
65	0.2500	0.5000	0.5000
70	1.0000	1.0000	1.0000

Disability Rates:

For police and firefighters, rates of disability were used to estimate the probability of becoming disabled. The following is a sample of the disability rates that were used:

<u>Rate of Disability</u>		
<u>Age</u>	<u>Police</u>	<u>Firefighters</u>
25	0.0005	0.0010
30	0.0022	0.0014
35	0.0026	0.0035
40	0.0040	0.0050
45	0.0065	0.0065
50	0.0095	0.1000
55	0.0130	0.0150

APPENDIX 3 – GASB 74 Crossover Test

APPENDIX 3 – GASB 74 CROSSOVER TEST

City of Aurora Post Retirement Healthcare Plan - GASB Statement 74 Crossover Projection

50 Year Projection of the Pension Plan's Fiduciary Net Position

Based on the December 31, 2015 Actuarial Valuation. 7.70% Asset Return

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2015	34,685,258	8,135,432	5,518,134	15,450	2,770,936	40,058,042
2016	40,058,042	8,227,002	6,100,093	15,593	3,165,755	45,335,113
2017	45,335,113	8,322,325	6,874,673	15,811	3,545,930	50,312,884
2018	50,312,884	8,418,945	7,620,478	16,110	3,904,213	54,999,453
2019	54,999,453	8,514,637	8,332,554	16,473	4,241,334	59,406,398
2020	59,406,398	8,616,601	9,018,583	16,905	4,558,166	63,545,677
2021	63,545,677	8,716,780	9,793,151	17,361	4,850,908	67,302,854
2022	67,302,854	8,812,303	10,586,559	17,881	5,113,322	70,624,039
2023	70,624,039	8,904,873	11,365,103	18,445	5,342,622	73,487,986
2024	73,487,986	9,002,227	12,246,717	19,026	5,532,930	75,757,399
2025	75,757,399	9,092,683	13,207,905	19,640	5,674,128	77,296,664
2026	77,296,664	9,184,313	13,970,123	20,244	5,766,810	78,257,419
2027	78,257,419	9,269,776	14,814,466	20,882	5,811,547	78,503,394
2028	78,503,394	9,367,064	15,640,184	21,477	5,802,419	78,011,215
2029	78,011,215	9,469,133	16,383,365	22,057	5,739,816	76,814,743
2030	76,814,743	9,583,298	17,179,080	22,618	5,621,427	74,817,770
2031	74,817,770	9,708,448	18,063,451	23,142	5,438,410	71,878,034
2032	71,878,034	9,847,234	18,929,166	23,606	5,184,045	67,956,541
2033	67,956,541	9,990,275	19,822,373	24,077	4,853,191	62,953,557
2034	62,953,557	10,147,384	20,484,115	24,518	4,448,516	57,040,824
2035	57,040,824	10,312,573	21,095,200	24,905	3,976,053	50,209,345
2036	50,209,345	10,486,182	21,863,261	25,253	3,427,130	42,234,143
2037	42,234,143	10,674,256	22,017,359	25,539	2,814,336	33,679,837
2038	33,679,837	10,870,691	22,451,663	25,776	2,146,488	24,219,576
2039	24,219,576	11,076,339	23,042,814	25,983	1,403,198	13,630,315
2040	13,630,315	11,299,996	23,111,770	26,157	593,774	2,386,158
2041	2,386,158	11,537,399	23,679,961	26,249	(284,765)	(10,067,417)
2042	(10,067,417)	11,790,761	24,279,522	26,227	(1,257,018)	(23,839,424)
2043	(23,839,424)	12,058,437	24,646,545	26,205	(2,321,287)	(38,775,023)
2044	(38,775,023)	12,342,526	24,889,047	26,082	(3,469,722)	(54,817,348)
2045	(54,817,348)	12,643,367	25,375,423	25,902	(4,712,117)	(72,287,423)
2046	(72,287,423)	12,960,568	25,719,839	25,662	(6,058,352)	(91,130,708)
2047	(91,130,708)	13,290,485	25,678,034	25,328	(7,494,960)	(111,038,545)
2048	(111,038,545)	13,635,152	25,932,716	24,979	(9,024,386)	(132,385,474)
2049	(132,385,474)	13,993,897	25,864,226	24,529	(10,651,634)	(154,931,965)
2050	(154,931,965)	14,364,135	25,617,648	24,089	(12,363,949)	(178,573,516)
2051	(178,573,516)	14,749,600	25,383,809	23,538	(14,160,484)	(203,391,747)

APPENDIX 3 – GASB 74 Crossover Test

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2052	(203,391,747)	15,149,908	24,991,099	22,901	(16,040,932)	(229,296,771)
2053	(229,296,771)	15,563,563	24,594,309	22,237	(18,004,391)	(256,354,145)
2054	(256,354,145)	15,990,050	24,022,629	21,547	(20,049,353)	(284,457,624)
2055	(284,457,624)	16,431,075	23,466,776	20,795	(22,174,912)	(313,689,033)
2056	(313,689,033)	16,886,642	22,871,620	19,979	(24,385,246)	(344,079,236)
2057	(344,079,236)	17,355,455	22,236,688	19,170	(26,682,767)	(375,662,406)
2058	(375,662,406)	17,838,930	21,717,527	18,294	(29,076,036)	(408,635,333)
2059	(408,635,333)	18,336,728	20,976,811	17,387	(31,567,233)	(442,860,036)
2060	(442,860,036)	18,848,909	20,352,382	16,490	(34,158,741)	(478,538,740)
2061	(478,538,740)	19,375,813	19,628,886	15,566	(36,857,826)	(515,665,205)
2062	(515,665,205)	19,917,908	18,871,692	14,658	(39,666,506)	(554,300,153)
2063	(554,300,153)	20,475,372	18,094,477	13,725	(42,589,976)	(594,522,959)
2064	(594,522,959)	21,048,310	17,290,293	12,814	(45,634,078)	(636,411,834)