



GASB 74 ACTUARIAL VALUATION

Fiscal Year Ending October 31, 2017

CITY OF EAST PROVIDENCE

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October 01, 2018

**Malcolm Moore
City of East Providence
145 Taunton Avenue
East Providence, RI 02914**

This report summarizes the GASB actuarial valuation for the City of East Providence 2016/17 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans) and GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors 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.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.



Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.

A handwritten signature in black ink that reads "Randy Gomez".

Randy Gomez, FSA, MAAA
Consulting Actuary

A handwritten signature in black ink that reads "Emily Clauss".

Emily Clauss, ASA, MAAA
Valuation Actuary

Executive Summary

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Summary of Results

Presented below is the summary of GASB 75 results for the fiscal year ending October 31, 2017.

As of October 31, 2017	
Total OPEB Liability	\$ 42,820,046
Actuarial Value of Assets	\$ (15,908,749)
Net OPEB Liability	\$ 26,911,297
Funded Ratio	37.2%

FY 2016/17	
OPEB Expense	\$ 1,278,758
Annual Employer Contributions	\$ 5,216,989
Actuarially Determined Contribution	\$ 4,100,391

As of October 31, 2017	
Discount Rate	7.00%
Expected Return on Assets	7.00%

As of October 31, 2017	
Total Active Participants	393
Total Retiree Participants	158

The active participants' number above may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

Executive Summary

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Summary of Results

Below is a breakdown of total GASB 75 liabilities allocated to past and current service. The table below also provides a breakdown of the Total OPEB Liability allocated to pre and post Medicare eligibility. The liability shown below includes explicit (if any) and implicit subsidies. Refer to the Substantive Plan Provisions section for complete information on the Plan Sponsor's GASB subsidies.

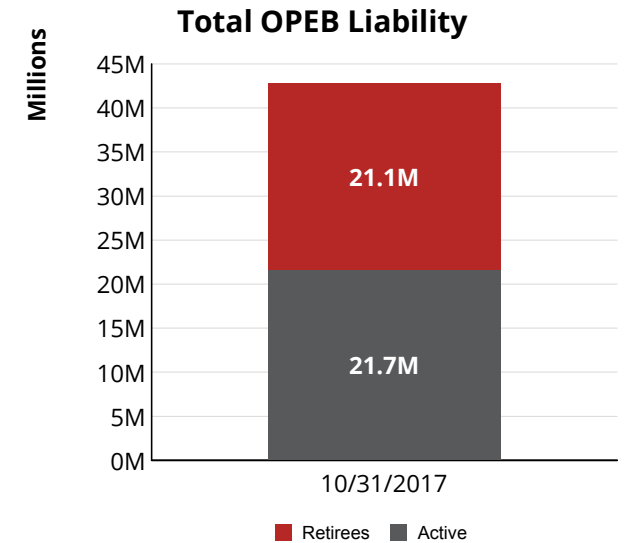
Present Value of Future Benefits		As of October 31, 2017	
Active Employees	\$	36,199,943	
Retired Employees		21,144,609	
Total Present Value of Future Benefits	\$	57,344,552	

Total OPEB Liability		As of October 31, 2017	
Active Pre-Medicare	\$	21,260,882	
Active Post-Medicare		414,555	
Active Liability	\$	21,675,437	

Retiree Pre-Medicare	\$	20,115,233	
Retiree Post-Medicare		1,029,376	
Retiree Liability	\$	21,144,609	

Total OPEB Liability	\$	42,820,046	
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		As of October 31, 2017	
Discount Rate		7.00%	



Present Value of Future Benefits (PVFB) is the amount needed as of October 31, 2017 to fully fund the City's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

Total OPEB Liability is the portion of PVFB considered to be accrued or earned as of October 31, 2017. This amount is a required disclosure in the Required Supplementary Information section.

GASB Disclosures

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2016/17
Total OPEB Liability	
Total OPEB Liability - beginning of year	\$ 36,688,606
Service cost	1,598,797
Interest	2,598,530
Change of benefit terms	(2,890,110)
Changes in assumptions	1,734,512
Differences between expected and actual experience	5,460,910
Benefit payments	(2,371,199)
Net change in total OPEB liability	\$ 6,131,440
Total OPEB Liability - end of year	\$ 42,820,046
Plan Fiduciary Net Position	
Plan fiduciary net position - beginning of year	\$ 11,181,267
Contributions - employer	5,216,989
Contributions - active employees	0
Net investment income	1,911,235
Benefit payments	(2,371,199)
Trust administrative expenses	(29,543)
Net change in plan fiduciary net position	\$ 4,727,482
Plan fiduciary net position - end of year	\$ 15,908,749
Net OPEB Liability - end of year	\$ 26,911,297
Plan fiduciary net position as % of total OPEB liability	37.2%
Covered employee payroll	\$ 23,591,016
Net OPEB liability as % of covered payroll	114.1%

GASB Disclosures

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the City's financial statements.

	FY 2016/17		FY 2015/16		FY 2014/15		FY 2013/14		FY 2012/13	
Actuarially Determined Contribution (ADC)	\$	4,100,391	\$	3,645,401	\$	3,645,401	\$	4,330,882	\$	4,330,882
Contributions in relation to the ADC		5,216,989		7,772,836		8,721,571		3,424,015		3,424,015
Contribution deficiency/(excess)	\$	(1,116,598)	\$	(4,127,435)	\$	(5,076,170)	\$	906,867	\$	906,867
Covered employee payroll	\$	23,591,016	\$	22,427,960	\$	22,427,960	\$	20,204,098	\$	20,204,098
Contribution as a % of covered payroll		22.1%		34.7%		38.9%		17.0%		17.0%
	FY 2011/12		FY 2010/11		FY 2009/10		FY 2008/09			
Actuarially Determined Contribution (ADC)	\$	5,547,669	\$	5,547,669	\$	5,138,868	\$	4,906,416		
Contributions in relation to the ADC		3,728,228		3,728,228		2,755,302		2,510,526		
Contribution deficiency/(excess)	\$	1,819,441	\$	1,819,441	\$	2,383,566	\$	2,395,890		
Covered employee payroll	\$	22,886,101	\$	22,886,101		N/A		N/A		
Contribution as a % of covered payroll		16.3%		16.3%		N/A		N/A		

*FY 2014/15 and 2015/16 contributions in relation to the ADC includes the pay-go cost shown in the Net OPEB Obligation development and pre-funding contributions made to the OPEB Trust.

GASB Disclosures

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Sensitivity Results

The following presents the net OPEB liability as of October 31, 2017, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 7.00%.
- The 1% decrease in discount rate would be 6.00%.
- The 1% increase in discount rate would be 8.00%.

As of October 31, 2017	Net OPEB Liability
1% Decrease	\$ 30,185,910
Current Discount Rate	\$ 26,911,297
1% Increase	\$ 23,958,688

The following presents the net OPEB liability as of October 31, 2017, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 9.00%, decreasing to an ultimate rate of 5.00%.
- The 1% decrease in health care trend rates would assume an initial rate of 8.00%, decreasing to an ultimate rate of 4.00%.
- The 1% increase in health care trend rates would assume an initial rate of 10.00%, decreasing to an ultimate rate of 6.00%.

As of October 31, 2017	Net OPEB Liability
1% Decrease	\$ 23,480,404
Current Trend Rates	\$ 26,911,297
1% Increase	\$ 30,822,215

GASB Disclosures

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Asset Information

Asset Breakdown		FY 2016/17
Assets		
Cash and cash equivalents	\$	0
Securities lending cash collateral		0
Total cash	\$	0
Receivables		
Contributions	\$	0
Accrued interest		0
Total receivables	\$	0
Investments		
Fixed income	\$	3,659,012
Equities		10,977,037
Mutual Funds		1,272,700
Total investments	\$	15,908,749
Total Assets	\$	15,908,749
Liabilities		
Payables		
Investment management fees	\$	0
Securities lending expense		0
Total liabilities	\$	0
Net Position Restricted to OPEB	\$	15,908,749

Asset Reconciliation		FY 2016/17
Additions		
Contributions Received		
Employer	\$	5,216,989
Employee		0
Total contributions	\$	5,216,989
Investment Income		
Net increase in fair value of investments	\$	1,911,235
Interest and Dividends		0
Investment expense, other than from securities lending		0
Securities lending income		0
Securities lending expense		0
Net investment income	\$	1,911,235
Total additions	\$	7,128,224
Deductions		
Benefit payments	\$	2,371,199
Administrative expenses		29,543
Other		0
Total deductions	\$	2,400,742
Net increase in net position	\$	4,727,482
Net position restricted to OPEB		
Beginning of year	\$	11,181,267
End of year	\$	15,908,749

* Asset Breakdown is the expected make-up of the Trust based on the target asset allocation and does not represent actual figures.

Actuarially Determined Contributions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The calculations are done using the same census data, substantive plan provisions, and actuarial methods and assumptions as shown in the GASB 74/75 report for the fiscal year ending October 31, 2017 unless specified otherwise below.

	FY 2016/17		FY 2017/18		FY 2018/19	
Discount rate	7.00%		7.00%		7.00%	
Payroll growth factor used for amortization	N/A		N/A		N/A	
Actuarial cost method	Entry Age Normal Level % of Salary		Entry Age Normal Level % of Salary		Entry Age Normal Level % of Salary	
Amortization type	Level Dollar		Level Dollar		Level Dollar	
Amortization period	30 years		29 years		28 years	
Actuarial accrued liability (AAL) – beginning of year	\$	41,333,174 ¹	\$	42,820,046	\$	44,217,599
Actuarial value of assets – beginning of year		(11,181,267)		(15,908,749)		(20,781,636) ²
Unfunded AAL – beginning of year	\$	30,151,907	\$	26,911,297	\$	23,435,963
Normal Cost	\$	1,561,268	\$	1,639,332	\$	1,698,927
Amortization of UAAL		2,270,873		2,048,494		1,804,611
Total normal cost plus amortization	\$	3,832,141	\$	3,687,826	\$	3,503,538
Interest to the end of year		268,250		258,148		245,248
Actuarially Determined Contribution – Preliminary	\$	4,100,391	\$	3,945,974	\$	3,748,786
Expected benefit payments		2,371,199		3,242,372		3,470,419
Actuarially Determined Contribution – Final³	\$	4,100,391	\$	3,945,974	\$	3,748,786

Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

¹ FY 2016/17 beginning of year AAL is based on October 31, 2017 AAL rolled back to November 1, 2016 on a “no gain / loss” basis.

² The Actuarial Value of Assets as of November 1, 2018 is estimated based on a long-term expected return on investments of 7.0%.

³ Set to be the greater of the preliminary ADC and expected benefit payments.

Projection of GASB Disclosures

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs when the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

Projection of Total OPEB Liability (TOL)	FY 2016/17	FY 2017/18
TOL as of beginning of year	\$ 36,688,606	\$ 42,820,046
Normal cost as of beginning of year	1,598,797	1,639,332
Exp. benefit payments during the year	(2,371,199)	(3,242,372)
Interest adjustment to end of year	2,598,530	3,000,593
Exp. TOL as of end of year	\$ 38,514,734	\$ 44,217,599
Actuarial Loss / (Gain)	4,305,312	TBD
Actual TOL as of end of year	\$ 42,820,046	\$ TBD
Discount rate as of beginning of year	7.00%	7.00%
Discount rate as of end of year	7.00%	TBD

Projection of Actuarial Value of Assets (AVA)	FY 2016/17	FY 2017/18
AVA as of beginning of year	\$ 11,181,267	\$ 15,908,749
Exp. employer contributions during the year	5,216,989	6,916,372
Exp. benefit payments during the year	(2,371,199)	(3,242,372)
Expected investment income	879,590	1,238,659
Exp. Trust administrative expenses	(29,543)	(39,772)
Exp. AVA as of end of year	\$ 14,877,104	\$ 20,781,636
Differences between expected and actual experience	1,031,645	TBD
AVA as of end of year	\$ 15,908,749	\$ TBD
Expected asset return as of beginning of year	7.00%	7.00%
Expected asset return as of end of year	7.00%	TBD

* For FY 2017/18 asset projection, the Trust admin expense is assumed to be 0.25% of the beginning of year asset balance and the City is assumed to contribute the expected pay-go cost in FY 2017/18 plus an additional contribution of \$3,674,000.

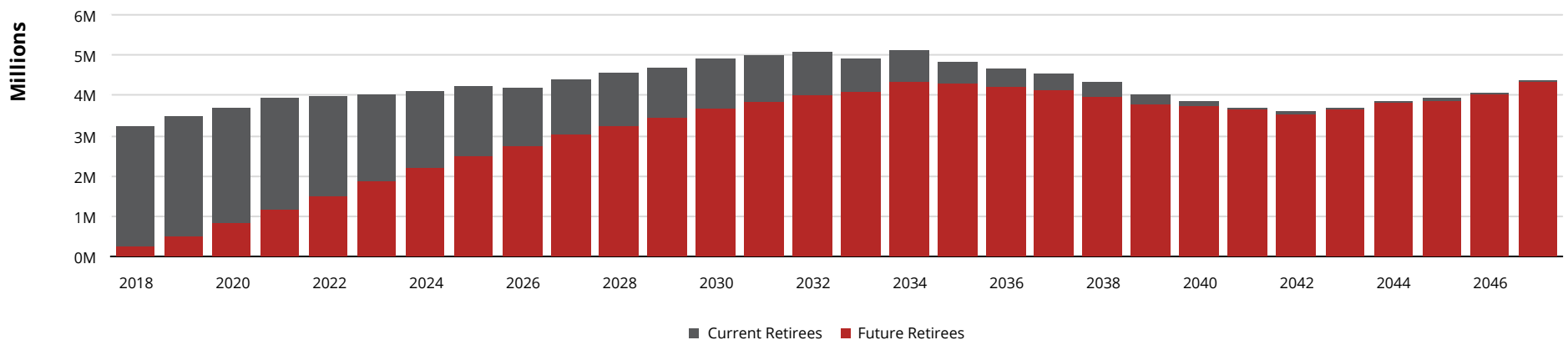
Cash Flow Projections

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current/future retirees. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees*	Total	FYE	Current Retirees	Future Retirees*	Total	FYE	Current Retirees	Future Retirees*	Total
2018	\$ 3,004,877	\$ 237,495	\$ 3,242,372	2028	\$ 1,345,120	\$ 3,222,874	\$ 4,567,994	2038	\$ 347,955	\$ 3,988,715	\$ 4,336,670
2019	\$ 2,970,083	\$ 500,336	\$ 3,470,419	2029	\$ 1,241,761	\$ 3,420,480	\$ 4,662,241	2039	\$ 244,989	\$ 3,780,353	\$ 4,025,342
2020	\$ 2,853,468	\$ 844,886	\$ 3,698,354	2030	\$ 1,215,466	\$ 3,691,172	\$ 4,906,638	2040	\$ 120,580	\$ 3,707,611	\$ 3,828,191
2021	\$ 2,788,925	\$ 1,145,283	\$ 3,934,208	2031	\$ 1,147,417	\$ 3,841,946	\$ 4,989,363	2041	\$ 64,411	\$ 3,632,187	\$ 3,696,598
2022	\$ 2,489,424	\$ 1,475,855	\$ 3,965,279	2032	\$ 1,074,227	\$ 4,003,142	\$ 5,077,369	2042	\$ 62,154	\$ 3,531,769	\$ 3,593,923
2023	\$ 2,152,541	\$ 1,876,074	\$ 4,028,615	2033	\$ 822,124	\$ 4,116,839	\$ 4,938,963	2043	\$ 59,733	\$ 3,638,437	\$ 3,698,170
2024	\$ 1,905,202	\$ 2,184,175	\$ 4,089,377	2034	\$ 775,832	\$ 4,363,702	\$ 5,139,534	2044	\$ 57,167	\$ 3,809,340	\$ 3,866,507
2025	\$ 1,757,514	\$ 2,470,905	\$ 4,228,419	2035	\$ 544,476	\$ 4,292,726	\$ 4,837,202	2045	\$ 54,465	\$ 3,859,128	\$ 3,913,593
2026	\$ 1,433,137	\$ 2,750,409	\$ 4,183,546	2036	\$ 446,089	\$ 4,232,098	\$ 4,678,187	2046	\$ 51,654	\$ 3,997,192	\$ 4,048,846
2027	\$ 1,326,433	\$ 3,041,083	\$ 4,367,516	2037	\$ 404,997	\$ 4,143,070	\$ 4,548,067	2047	\$ 48,696	\$ 4,326,812	\$ 4,375,508

Projected Employer Pay-go Cost



* Projections for future retirees do not take into account future new hires.

Discussion of Discount Rates

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

1. The long-term expected rate of return on OPEB plan investment is assumed to be 7.0%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (1.9%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2017 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR
U.S. Equity	48.3%	6.1%
Non-U.S. Equity	20.7%	6.7%
U.S. Aggregate Bonds	9.0%	1.7%
Intermediate-Term Credit	5.4%	2.3%
Short-Term Credit	3.6%	2.0%
Intermediate-Term TIPS	5.0%	0.8%
REITs	8.0%	4.9%
Total	100.0%	5.1%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	November 1, 2016	October 31, 2017
Bond Buyer Go 20-Bond Municipal Bond Index	3.32%	3.63%
S&P Municipal Bond 20-Year High Grade Rate Index	3.17%	3.35%
Fidelity 20-Year Go Municipal Bond Index	3.34%	3.49%
Bond Index Range	3.17% - 3.34%	3.35% - 3.63%

3. The final equivalent single discount rate used for this year's valuation is 7.0% for accounting disclosure purposes based on the following assumptions:
 - a. The City is expected to deposit \$3.7 million pre-funding contributions annually to the Trust.
 - b. Pay-go costs will be fully paid by the City until at least FYE 2022.

Based on the above assumptions, the OPEB Trust is expected to have sufficient assets to cover all future benefit payments.

The same discount rate is also used for funding disclosure purposes (in calculating the Actuarially Determined Contribution).

Summary of Plan Participants

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Active Employees

Actives with coverage ¹	Single	Non-Single	Total	Avg. Age	Avg. Svc	Salary
HM 0005		1	1	61.0	7.7	\$ 51,238
HM 0019	35	60	95	40.5	12.6	\$ 6,299,258
BS 0028	40	66	106	40.6	13.4	\$ 6,872,296
HM 0031	65	99	164	49.3	13.3	\$ 8,829,121
Total actives with coverage	140	226	366	44.5	13.1	\$ 22,051,913

Actives without coverage	Total	Avg. Age	Avg. Svc	Salary
Total actives without coverage	27	48.5	11.9	\$ 1,539,103

Active employees who currently have no coverage are assumed not to elect health coverage at retirement but they are eligible for life insurance benefits. They have been included in the GASB valuation but only life insurance benefit liabilities are valued for them.

¹ Health plan mapping shown in this table is based on the assumed plan election at retirement as described on page 22 of this report.

Summary of Plan Participants

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Active Age-Service Distribution

Age	Years of Service										Total
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	6	3									9
25 to 29	13	32	2								47
30 to 34	7	19	8	8							42
35 to 39	6	10	2	16	1						35
40 to 44	4	5	2	8	19	5					43
45 to 49	3	5	1	15	26	20	7				77
50 to 54	2	5	1	7	10	16	14	4			59
55 to 59	3		1	10	11	7	10	8			50
60 to 64	2	1	2	3	8	5	3				24
65 to 69		2	1	1		1					5
70 & up					1		1				2
Total	46	82	20	68	76	54	35	12	0	0	393

Summary of Plan Participants

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Retirees and Disabled Participants²

Disabled with coverage	Single	Non-Single	Total	Avg. Age
HM 0005	2	5	7	61.3
HM 0019		15	15	55.7
HM 0031		1	1	55.4
Classic		1	1	60.7
Total disabled with coverage	2	22	24	57.5

Retirees with coverage	Single	Non-Single	Total	Avg. Age
HM 0005	1	13	14	62.5
HM 0019	20	80	100	57.8
HM 0031	5	9	14	62.1
Classic	1		1	63.1
Plan 65	5		5	83.7
Total retirees with coverage	32	102	134	59.8

Inactive Age Distribution

Age	Disabled	Retirees
< 45	2	2
45 to 49	1	12
50 to 54	1	15
55 to 59	11	34
60 to 64	8	56
65 to 69	1	9
70 to 74		1
75 to 79		1
80 to 84		2
85 to 89		2
90 & up		
Total	24	134

² In addition to the above, there were 30 retirees and 2 disabled participants who are enrolled in the Police & Fire Benevolent Association plans. These retirees have been excluded from the valuation as the City does not pay any portion of their premiums. There are also 21 post-65 retired/disabled participants on WRI only coverage. The City only pays for the claims costs incurred by these WRI only retirees as they come due.

Substantive Plan Provisions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Eligibility

General employees are eligible for retiree health benefits once they meet RI MERS pension eligibility requirements.

Police officers and Firefighters are eligible for retiree health benefits once they meet the City of East Providence Police and Fire Retirement System pension eligibility requirements:

1. Police officers hired before November 1, 2014 and Firefighters hired before January 1, 2014 – at the earlier of:
 - a. Age 60 with 10 years of service
 - b. 20 years of service (no age requirement)
2. Police officers hired on/after November 1, 2014 and Firefighters hired on/after January 1, 2014:
 - a. Age 55 with 25 years of service

MERS Eligibility Requirements

Employees eligible to retire as of July 1, 2012 are not impacted by the new eligibility requirements described below. Prior to July 1, 2012, employees were eligible to retire at the earlier of: (i) age 58 with 10 years of service credit or (ii) 30 years of service (no age requirement).

For employees who are not eligible to retire as of July 1, 2012:

- a) Members with less than five years of contributing service credit on June 30, 2012 may retire at their Social Security normal retirement age.
- b) Members with at least five years of contributing service credit on June 30, 2012 may retire at an individually determined age, which is the result of interpolating the member's prior Retirement Date (described in previous paragraph) and the retirement age applicable to members hired after June 30, 2012 (described in item (a) above).
- c) Members with at least ten years of contributing service credit on June 30, 2012 may retire at their prior Retirement Date (described in previous paragraph) if they continue to work and contribute until that date.

All members who are within five years of reaching their retirement eligibility date (described in the paragraphs above) may retire at any time if they have at least 20 years of service.

Effective on July 1, 2015, employees are also eligible to retire upon attainment of age 65 with 30 years of service, age 64 with 31 years of service, age 63 with 32 years of service, or age 62 with at least 33 years of service. These are additional eligibility requirements, which means that if employees are eligible to retire under the current eligibility requirements, they may do so.

Substantive Plan Provisions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Spouse Benefit

Surviving spouse receives COBRA coverage upon death of the retiree and must pay the required COBRA rate. Upon death of an active employee:

- Surviving spouses of Police officers and Firefighters receive three years of free coverage paid by the City and then must elect COBRA coverage and pay the required COBRA rate.
- Surviving spouses of General employees receive one year of subsidized coverage paid by the City and then must elect COBRA coverage and pay the required COBRA rate. City's subsidy will be at the same level as existing active employees' subsidy.

Benefit Duration

General

For employees who retired prior to November 1, 2012

Retiree health benefits cease at the later of: (a) the retiree attaining age 65 or (b) 3 years after retirement.

For employees who retired on/after November 1, 2012

General employees retiree health benefits will cease after one year after retirement plus 18 month of COBRA coverage, except for the following:

- Retiree health benefits for EPPMTEA employees with 25 years of service as of November 1, 2012 will terminate upon Medicare eligibility.
- Retiree health benefits for 15509 and 15509A employees who retire with 30 years of service on/before October 31, 2017 will terminate upon Medicare eligibility.

In this year's census data there are nine non-disabled retirees who have lifetime coverage based on the coverage end dates information provided by the City. Out of these nine retirees, five of them are currently enrolled in Plan 65 and pay the full cost of coverage so there are no liabilities for them.

Police and Fire

Retiree health benefits cease at the later of: (a) the retiree attaining age 65 or (b) 3 years after retirement.

In this year's census data there are four non-disabled retirees who are assumed to have lifetime coverage based on the coverage end dates information provided by the City. Out of these four retirees, one of them is currently enrolled in WRI only plan and there is no liability valued for him in this valuation.

Substantive Plan Provisions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Disability Benefit

General employees are eligible for disability health benefit from their date of hire. The disabled employee will be treated as a regular retiree. The City will pay for the full cost of coverage for both retiree and spouse until the retiree is eligible for Medicare. Spouse's disability health benefit coverage will terminate upon death of the retiree.

Police officers and Firefighters are eligible for non-line of duty disability health benefit after ten years of service. There is no age or service requirement for line of duty disability health benefit. The City will pay for the full cost of coverage for the disabled retiree (subject to annual medical documentation) until they are eligible for Medicare, at which time they will be moved to a WRI only health plan and the City will only pay for the disabled retirees claims as they are incurred. For GASB valuation purposes, there is no liability valued for these retirees enrolled in WRI only plan. Spouse coverage will be paid for by the City until the retiree is eligible for Medicare. Spouse's disability health benefit coverage will terminate upon death of the retiree.

Retiree Cost Sharing

Police and Fire

Hired prior to January 1, 2015: None

Hired on/after January 1, 2015: Employees contribute 20% of the cost of retiree health benefits

General Employees

Retired prior to November 1, 2012: None

Retired on/after November 1, 2012: Retiree contribution requirements follow active employees, which is a percentage of premium contribution based on the employees' base pay:

- 10% of premium if base pay is less than \$30,000
- 15% of premium if base pay is less than \$46,000 but more than \$30,000
- 20% of premium if base pay is less than \$95,000 but more than \$46,000
- 25% of premium if base pay is more than \$95,000

Substantive Plan Provisions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Medical Benefits

Same benefit options are available to retirees as active employees. City of East Providence pre-65 health plans are fully-insured through Rhode Island Interlocal Risk Management Trust (RI Trust). Depending on its size, the entity's experience is blended with the community pool (the community used is all of the municipal accounts in Rhode Island, not just the collaborative pool that they are a part of). There is no asset used to suppress premium rates increases. Premium rates are calculated to fund the expected costs (including claims and administrative costs). Post-65 health plans are also fully-insured through RI Trust as well but they are community-rated. The table below shows the assumed plan election at retirement for GASB 75 valuation purposes.

Employee group	Active plans	Retiree plans
Public works	0005/7/8/21	0005/31
Municipal employees	0007/8/21	0031
Police	0008/17	0019/31
Fire	0007/28	0031

The monthly premiums by plan (excluding WRI cost) effective on July 1, 2017 are as shown below.

Pre-65 Retiree Plan	Single	Family
0019 Healthmate	\$ 624.61	\$ 1,539.12
0031 Healthmate	\$ 553.35	\$ 1,357.29
0005 Healthmate	\$ 654.38	\$ 1,612.56
0028 Blue Solutions HSA	\$ 479.64	\$ 1,181.89
0012 Classic	\$ 769.48	\$ 1,896.07
Post-65 Retiree Plan	Single	Family
Plan 65	\$ 184.08	\$ 368.16

Dental

Retirees may elect dental coverage at their own cost. Since retirees pay the full premium amount, there is no GASB 75 liability valued for this benefit.

Life Insurance

The City provides group life insurance of \$7,500.

Actuarial Methods and Assumptions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

The actuarial assumptions used in this report represent a reasonable long-term expectation of future OPEB outcomes. As national economic and City experience change over time, the assumptions will be tested for ongoing reasonableness and, if necessary, updated.

There are changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending October 31, 2015. Refer to Actuary's Notes section for complete information on these changes. For the current year GASB valuation, we have also updated the per capita costs. We expect to update discount rate, health care trend rates, and per capita costs again in the next full GASB valuation, which will be for the fiscal year ending October 31, 2019.

Measurement Date

For fiscal year ending October 31, 2017, October 31, 2017 measurement date was used.

Actuarial Valuation Date

October 31, 2017 with no adjustments to get to the October 31, 2017 measurement date. Liabilities as of November 1, 2016 are based on an actuarial valuation date of November 1, 2015 projected to November 1, 2016 on a "no loss / no gain" basis.

Discount Rate

7.00% as of November 1, 2016 and October 31, 2017 for accounting disclosure purposes
7.00% for funding disclosure purposes (in calculating the Actuarially Determined Contribution)
Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

Inflation Rate

3.25%

Payroll Growth

Wage inflation plus merit/productivity increases assumed in the valuation are based on the MERS actuarial valuation as of June 30, 2017 for general employees and an experience study as of June 1, 2015 prepared by Fallon Pension Actuaries, Inc. for police and fire. Sample total salary increases are shown in the table below, including inflation.

YOS	Police / Fire	General
0	4.00%	7.25%
5	10.00%	5.25%
10	4.94%	3.50%
15	4.00%	3.25%
20	4.93%	3.25%
21+	4.00%	3.25%

Asset Valuation Method

Market Value of Assets is used in calculating the Actuarially Determined Contribution

Actuarial Methods and Assumptions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Employer Funding Policy

City of East Providence annually funds its OPEB Trust discretionarily. Annual pay-go costs for current retirees are paid out of the General Fund.

Cost Method

Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:

- Service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant's benefit at retirement; and
- Annual Service Cost is a constant percentage of the participant's salary that is assumed to increase according to the Payroll Growth.

Census Data

Census information was provided by the City in July 2018. We have reviewed it for reasonableness and no material modifications were made to the census data, except for the following:

- For non-disabled retirees with N/A coverage end dates, they are assumed to receive lifetime subsidy from the City except if they are currently under the age of 65, in which case Nyhart has calculated the coverage end dates based on the benefit duration as described in the substantive plan provisions section.

Experience Study

Best actuarial practices call for a periodic assumption review and Nyhart recommends the City to complete an actuarial assumption review (also referred to as an experience study). The City plans to complete an experience study prior to the next full valuation as of October 31, 2019.

Health Care Coverage Election Rate

Active General employees with current health coverage: 50%

Active Police/Fire employees with current health coverage: 100%

All active employees without current health coverage:

- 0% of them are assumed to elect health coverage with the City
- 100% of the are assumed to have life insurance coverage at retirement

100% of retirees with current coverage are assumed to continue coverage.

0% of retirees without current coverage are assumed to elect coverage in the future.

Actuarial Methods and Assumptions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Mortality

Healthy retirees: RPH-2017 Total Dataset Mortality Table fully generational using scale MP-2017
Disabled retirees: RPH-2017 Disabled Mortality Table fully generational using scale MP-2017

Disability

Annual disability rates are based on the 2012 City of East Providence Police and Firefighters Retirement System 2012 experience study for police and fire and RI MERS actuarial valuation as of June 30, 2017 for general employees. Sample annual disability rates are as shown below:

Age	Police / Fire	General	
	Unisex	Male	Female
25	0.50%	0.06%	0.03%
35	0.90%	0.10%	0.05%
45	1.73%	0.23%	0.11%
55	3.00%	0.66%	0.30%

100% of disabilities are assumed to be a line of duty disability for all employee groups.

Turnover Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. For general employees, the rates are based on RI MERS actuarial valuation as of June 30, 2017. For police and fire, the rates are based on the City of East Providence Police and Firefighters Retirement System 2012 experience study.

YOS	Police / Fire	General
0	4.00%	17.50%
5	3.00%	6.15%
10	2.00%	2.71%
15	1.00%	1.75%
20	0.00%	1.49%
25+	0.00%	0.00%

Actuarial Methods and Assumptions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Retirement Rate

Police and Fire

Annual rates of retirement are based on the 2012 City of East Providence Police and Firefighters Retirement System experience study. The rates below are applicable after age 40 and 100% retirement is assumed at age 60.

YOS	Unisex
20	12%
21 – 23	14%
24 – 26	16%
27 – 29	18%
30+	20%

General Employees

Retirement rates are based on the assumptions used in the RI MERS actuarial valuation report as of June 30, 2017, which is a flat 20% per year retirement probability for members eligible for unreduced retirement. A 35% retirement probability at first eligibility will be applied if they have reached age 65 or with at least 25 years of service. 100% retirement is assumed at age 66.

Spousal Coverage

Spousal coverage for current retirees is based on actual data.

85% of employees are assumed to be married at retirement. Husbands are assumed to be three years older than wives.

Health Care Trend Rates

FYE	Medical/Rx	FYE	Medical/Rx
2018	9.0%	2023	6.5%
2019	8.5%	2024	6.0%
2020	8.0%	2025	5.5%
2021	7.5%	2026+	5.0%
2022	7.0%		

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Retiree Contributions

Retiree contributions are assumed to increase according to health care trend rates.

Actuarial Methods and Assumptions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Per Capita Costs

Annual per capita costs were calculated based on the City's monthly working rates effective on July 1, 2017 actuarially increased using health index factors and current enrollment. The costs are assumed to increase with health care trend rates. Annual per capita costs by plan are as shown below:

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Age	Classic		0005 Healthmate		0019 Healthmate	
	Male	Female	Male	Female	Male	Female
50 – 54	\$ 10,400	\$ 11,800	\$ 8,900	\$ 10,000	\$ 8,500	\$ 9,600
55 – 59	\$ 14,000	\$ 13,600	\$ 12,000	\$ 11,600	\$ 11,400	\$ 11,000
60 – 64	\$ 19,000	\$ 16,800	\$ 16,200	\$ 14,300	\$ 15,400	\$ 13,600

Age	0028 Blue Solutions		0031 Healthmate	
	Male	Female	Male	Female
50 – 54	\$ 6,500	\$ 7,400	\$ 7,500	\$ 8,500
55 – 59	\$ 8,800	\$ 8,500	\$ 10,100	\$ 9,800
60 – 64	\$ 11,900	\$ 10,500	\$ 13,700	\$ 12,100

Annual post-65 per capita costs are assumed to equal the Plan 65 premium rates (\$2,209).

Explicit Subsidy

The difference between (a) the premium rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a future retired general employee and his spouse enrolled in the 0031 Healthmate Plan with a base pay of \$95,000 immediately prior to retirement.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B = 25% x A	C = A – B
Retiree	\$ 553.35	\$ 138.34	\$ 415.01
Spouse	\$ 803.94	\$ 200.99	\$ 602.95

Actuarial Methods and Assumptions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Implicit Subsidy

The difference between (a) the per capita cost and (b) the premium rate. Below is an example of the monthly implicit subsidies for a 60 – 64 male retired general employee with spouse of the same age enrolled in the 0031 Healthmate Plan.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A – B
Retiree	\$ 1,141.67	\$ 553.35	\$ 588.32
Spouse	\$ 1,008.33	\$ 803.94	\$ 204.39

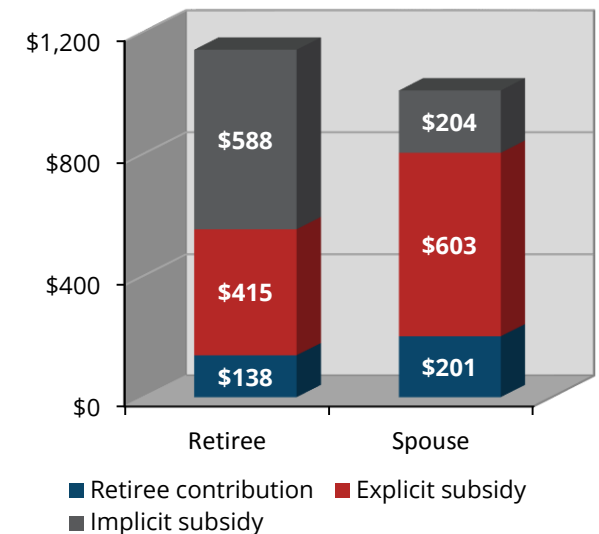
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 75 monthly total cost for a male 60 – 64 future retired general employee and his spouse enrolled in the 0031 Healthmate Plan with a base pay of \$95,000 immediately prior to retirement.

	Retiree		Spouse	
Retiree contribution	\$	138.34	\$	200.99
Explicit subsidy	\$	415.01	\$	602.95
Implicit subsidy	\$	588.32	\$	204.39
Total monthly cost	\$	1,141.67	\$	1,008.33

GASB Subsidy Breakdown



APPENDIX

The background of the slide is composed of several overlapping geometric shapes, primarily triangles. A large, solid grey triangle occupies the upper half of the frame. Below it, there are several overlapping triangles in white and light grey, some of which are semi-transparent, creating a layered effect. A prominent, solid red triangle is located in the bottom right corner, extending towards the center. The overall design is minimalist and modern.

Appendix

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Comparison of Participant Demographic Information

The active participants' number below may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

	As of October 31, 2015	As of October 31, 2017
Active Participants	389	393
Retired Participants	123	158
Averages for Active		
Age	45.3	44.8
Service	13.9	13.0
Averages for Inactive		
Age	59.3	59.4

Appendix

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

Detailed Actuary's Notes

There have been no substantive plan provision changes since the last full valuation, which was for the fiscal year ending October 31, 2015. However, the City is currently offering a community-rated post-65 health plan, which caused a significant decrease in the City's liabilities.

The City will disclose OPEB liabilities under GASB 74 for the current valuation. The prior valuation was disclosed under GASB 45. The following assumptions have been updated in accordance with GASB 74.

1. The actuarial cost method has been updated from Projected Unit Credit with linear proration to decrement to Entry Age Normal Level % of Salary. In conjunction with this change, the payroll growth assumption was updated to be consistent with the MERS actuarial valuation as of June 30, 2017 for General employees and an experience study as of June 1, 2015 prepared by Fallon Pension Actuaries, Inc. for Police/Fire. This caused a decrease in liabilities.
2. The prior full valuation used a discount rate of 7.50% for accounting disclosure purposes. The current valuation uses a discount rate of 7.00% as of November 1, 2016 and October 31, 2017 for accounting disclosure purposes, which caused an increase in the City's liabilities. Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used. The accounting discount rate will be updated annually to reflect market conditions as of the Measurement Date. The 7.00% discount rate is also used in calculating the Actuarially Determined Contribution.

Additionally, the following assumptions have also been updated:

1. Mortality table has been updated as follows, which caused a decrease in liabilities.
 - a. Healthy retirees: from SOA RPH-2015 Total Dataset Mortality Table fully generational using Scale MP-2015 to SOA RPH-2017 Total Dataset Mortality Table fully generational using Scale MP-2017
 - b. Disabled retirees: from SOA RPH-2015 Disabled Mortality Table fully generational using Scale MP-2015 to SOA RPH-2017 Disabled Mortality Table fully generational using Scale MP-2017
2. The disability and retirement tables for general employees were updated based on the MERS actuarial valuation as of June 30, 2017. The net impact of this change was a slight decrease in the City's liabilities.
3. Health care trend rates have been reset to an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.0%. This change caused an increase in liabilities.

Appendix

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

GASB Results by Fund

Fund	Total OPEB Liability		Plan Fiduciary Net Position ³		Net OPEB Liability	
	As of October 31, 2017		As of October 31, 2017		As of October 31, 2017	
Water	\$	896,604	\$	333,111	\$	563,493
All Others	\$	41,923,442	\$	15,575,638	\$	26,347,804
Total	\$	42,820,046	\$	15,908,749	\$	26,911,297

Fund	OPEB Expense	
	FY 2016/17	
Water	\$	(168,722)
All Others	\$	1,447,480
Total	\$	1,278,758

³ Plan Fiduciary Net Position by Fund is estimated based on the allocation of the Total OPEB Liability as of October 31, 2017.

Appendix

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

GASB 45 Results

Required Supplementary Information	FY 2015/16 ⁴	FY 2016/17
Actuarial Accrued Liability as of beginning of year	\$ 49,281,961	\$ 41,333,174
Actuarial Value of Assets as of beginning of year	0	(11,181,267)
Unfunded Actuarial Accrued Liability (UAAL)	\$ 49,281,961	\$ 30,151,907
Funded Ratio	0.0%	27.1%
Covered payroll	\$ 22,427,960	\$ 23,591,016
UAAL as a % of covered payroll	219.7%	127.8%

Annual Required Contribution	FY 2015/16	FY 2016/17
Normal cost as of beginning of year	\$ 1,788,000	\$ 1,561,268
Amortization of unfunded AAL	1,700,422	2,270,873
Total normal cost and amortization payment	\$ 3,488,422	\$ 3,832,141
Interest to end of year	156,979	268,250
Total Annual Required Contribution (ARC)	\$ 3,645,401	\$ 4,100,391

Net OPEB Obligation	FY 2015/16	FY 2016/17
ARC as of end of year	\$ 3,645,401	\$ 4,100,391
Interest on Net OPEB Obligation (NOO) to end of year	459,926	835,871
NOO amortization adjustment to the ARC	(368,520)	(605,749)
Annual OPEB cost	\$ 3,736,807	\$ 4,330,513
Annual employer contribution for pay-go costs	(2,016,384)	(2,371,199)
Annual employer contribution for pre-funding	0	(2,845,790)
Change in NOO	\$ 1,720,423	\$ (886,476)
NOO as of beginning of year	10,220,586	11,941,009
NOO as of end of year	\$ 11,941,009	\$ 11,054,533

All substantive plan provisions and actuarial assumptions and methods used for the FYE October 31, 2017 GASB 45 valuation results are the same as those in the FYE October 31, 2017 GASB 74/75 actuarial valuation other than those stated below.

Measurement Date

October 31, 2017 with results actuarially rolled-back to November 1, 2016 on a "no gain/no loss" basis.

Discount Rate

7.00% for FYE October 31, 2017 (4.50% was used for FYE October 31, 2016)

Amortization

Level Dollar over a closed 30-year period for FY 2016/17 (level % of pay over an open 30-year period was used for FY 2015/16 with a 4.25% payroll growth assumption for amortization purposes)

Cost Method

Entry Age Normal Level % of Salary for FY 2016/17 (FY 2015/16 was calculated using Projected Unit Credit)

⁴ FY 2015/16 figures are as shown in the City of East Providence FYE October 31, 2016 audited financial.

GLOSSARY

The background of the slide is composed of several overlapping geometric shapes, primarily triangles. The top half is a solid dark gray. The bottom half is divided into several sections: a large white triangle on the left, a medium gray triangle in the center, and a large red triangle on the right. There are also some lighter gray and white triangular shapes that overlap the main sections, creating a layered, architectural effect.

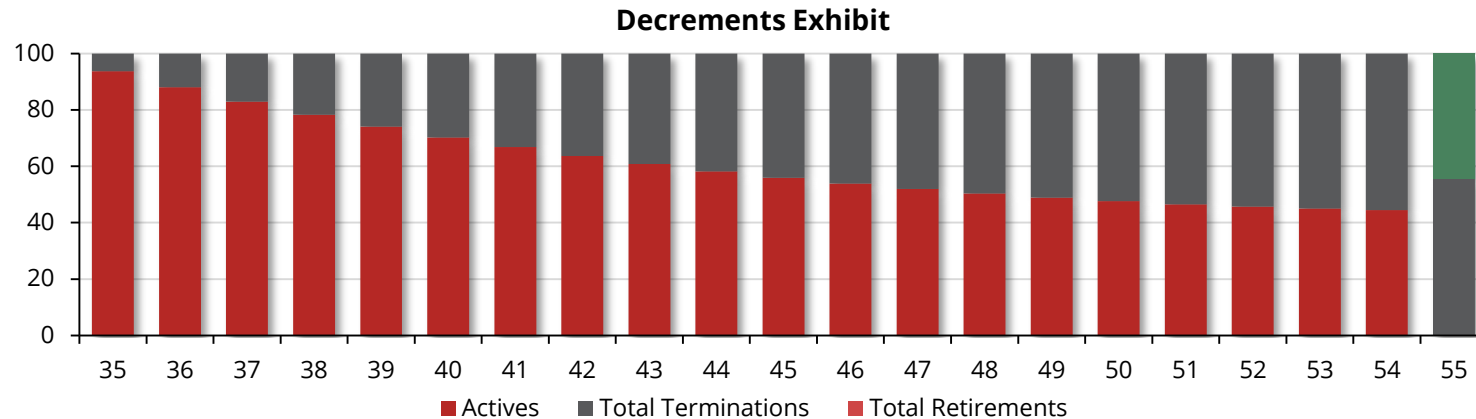
Glossary – Decrements Exhibit

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 44.43 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# of Terminations per Year ⁵	# of Retirements per Year	Total Decrements
35	100.000	6.276	0.000	6.276
36	93.724	5.677	0.000	5.677
37	88.047	5.136	0.000	5.136
38	82.911	4.648	0.000	4.648
39	78.262	4.209	0.000	4.209
40	74.053	3.814	0.000	3.814
41	70.239	3.456	0.000	3.456
42	66.783	3.131	0.000	3.131
43	63.652	2.835	0.000	2.835
44	60.817	2.564	0.000	2.564
45	58.253	2.316	0.000	2.316

Age	# Remaining Employees	# of Terminations per Year	# of Retirements per Year	Total Decrements
46	55.938	2.085	0.000	2.085
47	53.853	1.866	0.000	1.866
48	51.987	1.656	0.000	1.656
49	50.331	1.452	0.000	1.452
50	48.880	1.253	0.000	1.253
51	47.627	1.060	0.000	1.060
52	46.567	0.877	0.000	0.877
53	45.690	0.707	0.000	0.707
54	44.983	0.553	0.000	0.553
55	44.430	0.000	44.430	44.430



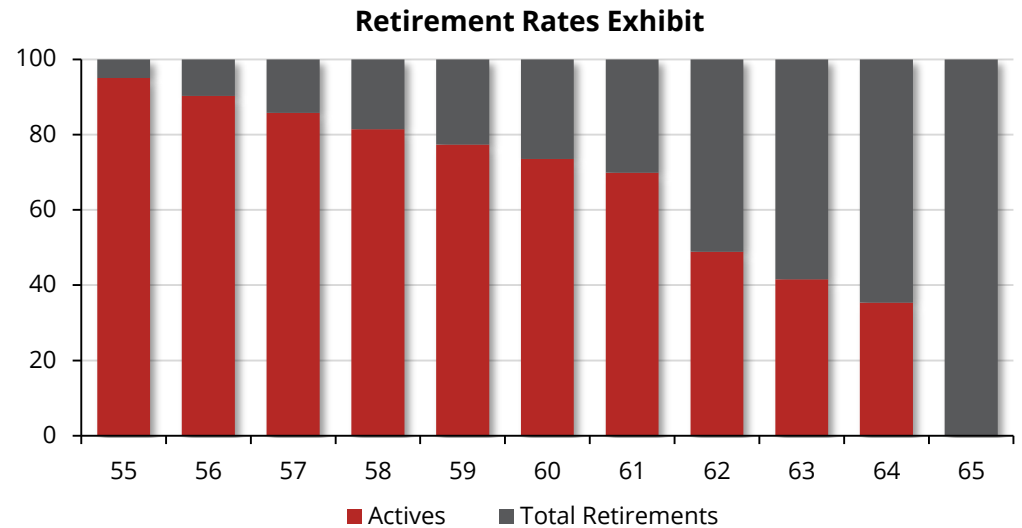
⁵ The above rates are illustrative rates and are not used in our GASB calculations.

Glossary – Retirement Rates Exhibit

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

Age	Active Employees BOY	Annual Retirement Rates*	# Retirements per Year	Active Employees EOY
55	100.000	5.0%	5.000	95.000
56	95.000	5.0%	4.750	90.250
57	90.250	5.0%	4.513	85.738
58	85.738	5.0%	4.287	81.451
59	81.451	5.0%	4.073	77.378
60	77.378	5.0%	3.869	73.509
61	73.509	5.0%	3.675	69.834
62	69.834	30.0%	20.950	48.884
63	48.884	15.0%	7.333	41.551
64	41.551	15.0%	6.233	35.318
65	35.318	100.0%	35.318	0.000



* The above rates are illustrative rates and are not used in our GASB calculations.

Glossary – Definitions

City of East Providence GASB 74 Valuation for Fiscal Year Ending October 31, 2017

GASB 75 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care 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 Future Benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Service Cost and a Total OPEB Liability.
3. **Actuarially Determined Contribution** - A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in accordance with the parameters and in conformity with Actuarial Standards of Practice.
4. **Actuarial 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 an 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.
5. **Deferred Outflow / (Inflow) of Resources** – represents the following items that have not been recognized in the OPEB Expense:
 - a. Differences between expected and actual experience of the OPEB plan
 - b. Changes in assumptions
 - c. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)
6. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
7. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the Total OPEB Liability.

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8. **Healthcare Cost Trend Rate** – The rate of change in the 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.
9. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
10. **OPEB** – Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.
11. **OPEB Expense** – Changes in the Net OPEB Liability in the current reporting period, which includes Service Cost, interest cost, changes of benefit terms, expected earnings on OPEB Plan investments, reduction of active employees' contributions, OPEB plan administrative expenses, and current period recognition of Deferred Outflows / (Inflows) of Resources.
12. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
13. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
14. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
15. **Real Rate of Return** – the rate of return on an investment after adjustment to eliminate inflation.

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16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Service Cost** – The portion of the Actuarial Present Value of projected benefit payments that are attributed to a valuation year by the Actuarial Cost Method.
18. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.
19. **Total OPEB Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Benefits which is attributed to past periods of employee service (or not provided for by the future Service Costs).