

**Town of Halifax Other
Postemployment Benefits Plan**

GASB 74/75 Actuarial Valuation

as of June 30, 2016

For reporting dates

June 30, 2017

June 30, 2018

Delivered April 2017

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April 15, 2017

Personal and Confidential

Ms. Linda Cole
Assistant Town Treasurer
Halifax Town Hall
499 Plymouth Street
Halifax, MA 02338

Dear Ms. Cole:

We have performed an actuarial valuation of the Town of Halifax Other Postemployment Benefits Plan for the fiscal year ending June 30, 2017 with a measurement date of June 30, 2016 and a valuation date of June 30, 2016. The figures presented in this report reflect the adoption, by the Town of Halifax, of Statement Nos. 74 and 75 of the Governmental Accounting Standards Board ("GASB 75") effective June 30, 2016.

The financial results of the actuarial valuation are summarized in the report. The Executive Summaries highlight the results of the valuation. Additional information summarizing census data, actuarial assumptions, claim rates and the methodology for developing them, as well as a glossary of selected terms used in this study, is also included in the report.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. In our opinion, the actuarial assumptions used are reasonable, reflecting the experience of the plan and reasonable expectations and, in combination, represent our best estimate of the anticipated experience under the plan.

We refer you to Section I of this report for a detailed summary and commentary on the results of the valuation and a comparison with the prior valuation. Section II is a summary of the plan provisions, and Section III describes the actuarial cost method and assumptions. Details for cost calculations, supporting data, and disclosures are provided in Exhibits A through C.

We will be pleased to answer any questions that you may have regarding this actuarial valuation report.

Very truly yours,



Parker E. Elmore, ASA, EA, FCA, MAAA
President, CEO & Actuary

April 15, 2017

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Halifax other postemployment benefit programs with a valuation date of June 30, 2016 for the fiscal year ending June 30, 2017 in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Numbers 74 & 75 for the determination of the liability for postemployment benefits other than pensions.

The actuarial data is based on the plan of benefits verified by the Town and on participant claims or premium data provided by the Town and/or vendors employed by the Town.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may yield results significantly different than those reported here. As such, additional determinations may be needed for other purposes including determining the benefit security at termination and/or adequacy of the funding of an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion represents the information necessary to comply with GASB Statements Number 74 and 75 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries and other professional actuarial organizations and meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the Town are reasonably related to the experience and expectations of the postemployment benefits programs.



Parker E. Elmore, ASA, EA, FCA, MAAA
President, CEO & Actuary

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

Town of Halifax
Assuming Pay as you go funding - 3.00% discount rate
Comparison of Plan Liabilities to Prior Valuation

	<u>June 30, 2016</u>	<u>June 30, 2014</u>
I. Present Value of Future Benefits		
A. Actives	20,217,961	11,538,857
B. Retirees/Disabled	<u>7,306,360</u>	<u>5,300,755</u>
C. Total	27,524,321	16,839,612
II. Present Value of Future Normal Cost	8,349,580	5,475,799
III. Total OPEB Liability (Individual Entry Age Normal)		
A. Actives	11,868,381	6,063,058
B. Retirees/Disabled	<u>7,306,360</u>	<u>5,300,755</u>
C. Total	19,174,741	11,363,813
IV. Fiduciary Net Position	179,434	105,791
V. Net OPEB Liability (Asset) [III. - IV.]	18,995,307	11,258,022
VI. Funded Ratio [IV. / III.]	0.94%	0.93%
VII. Annual Covered Payroll	N/A	N/A
VIII. Net OPEB Liability (Asset) as % of Covered Payroll	N/A	N/A
IX. Number of Eligible Participants		
A. Actives	123	126
B. Retirees/Disabled	<u>107</u>	<u>105</u>
C. Total	230	231
For Fiscal Year Ending June 30, 2017	<u>June 30, 2017</u>	<u>June 30, 2015</u>
X. Service Cost	693,532	449,591
XI. Interest on Net OPEB Liability (Asset) and Service Cost	590,664	N/A
XII. Deferred (Inflows)/Outflows from Plan Design Changes	0	N/A
XIII. Deferred (Inflows)/Outflows from Expected & Actual Experience	530,117	N/A
XIV. Deferred (Inflows)/Outflows from Changes in Assumptions	0	N/A
XV. Projected Earning on OPEB plan investments	(4,934)	N/A
XVI. Deferred (Inflows)/Outflows from Earnings on Investments	0	N/A
XVII. Employer Share of Costs	(388,896)	(368,764)
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	(35,000)	(35,000)
XIX. Total Employer Contribution [XVII. + XVIII.]	(423,896)	(403,764)
XX. Other Changes	0	N/A
XXI. Net OPEB Expense [X.+XI.+XII.+XIII.+XIV.+XVI.+XIX.+XX.]	1,385,483	N/A
XXII. Discount Rate	3.00%	4.00%

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Halifax Comparison of Plan Funding vs. Pay as you go funding

	<u>Pay as you go funding - 3.00% discount rate</u>	<u>Funding - 6.50% discount rate</u>
I. Present Value of Future Benefits		
A. Actives	20,217,961	8,132,530
B. Retirees/Disabled	<u>7,306,360</u>	<u>5,027,338</u>
C. Total	27,524,321	13,159,868
II. Present Value of Future Normal Cost	8,349,580	2,201,274
III. Total OPEB Liability (Individual Entry Age Normal)		
A. Actives	11,868,381	5,931,256
B. Retirees/Disabled	<u>7,306,360</u>	<u>5,027,338</u>
C. Total	19,174,741	10,958,594
IV. Fiduciary Net Position	179,434	179,434
V. Net OPEB Liability (Asset) [III. - IV.]	18,995,307	10,779,160
VI. Funded Ratio [IV. / III.]	0.94%	1.64%
VII. Annual Covered Payroll	N/A	N/A
VIII. Net OPEB Liability (Asset) as % of Covered Payroll	N/A	N/A
IX. Number of Eligible Participants		
A. Actives	123	123
B. Retirees/Disabled	<u>107</u>	<u>107</u>
C. Total	230	230
For Fiscal Year Ending June 30, 2017		
X. Service Cost	693,532	251,044
XI. Interest on Net OPEB Liability (Asset) and Service Cost	590,664	303,332
XII. Deferred (Inflows)/Outflows from Plan Design Changes	0	0
XIII. Deferred (Inflows)/Outflows from Expected & Actual Experience	530,117	0
XIV. Deferred (Inflows)/Outflows from Changes in Assumptions	0	(1,589,197)
XV. Projected Earning on OPEB plan investments	(4,934)	(4,934)
XVI. Deferred (Inflows)/Outflows from Earnings on Investments	0	0
XVII. Employer Share of Costs	(388,896)	(388,896)
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	(35,000)	(960,500)
XIX. Total Employer Contribution [XVII. + XVIII.]	(423,896)	(1,349,396)
XX. Other Changes	0	0
XXI. Net OPEB Expense [X.+XI.+XII.+XIII.+XIV.+XV.+XVI.+XIX.+XX.]	1,385,483	(2,389,151)

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Halifax

Assuming Pay as you go funding - 3.00% discount rate

Plan Liabilities as of June 30, 2016

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	17,875,583	1,585,369	68,730	688,279	20,217,961
B. Retirees/Disabled	<u>6,611,278</u>	<u>611,335</u>	<u>81,778</u>	<u>1,969</u>	<u>7,306,360</u>
C. Total	24,486,861	2,196,704	150,508	690,248	27,524,321
II. Present Value of Future Normal Cost	7,254,317	643,299	19,869	432,095	8,349,580
III. Total OPEB Liability					
A. Actives	10,621,266	942,070	48,861	256,184	11,868,381
B. Retirees/Disabled	<u>6,611,278</u>	<u>611,335</u>	<u>81,778</u>	<u>1,969</u>	<u>7,306,360</u>
C. Total	17,232,544	1,553,405	130,639	258,153	19,174,741
IV. Fiduciary Net Position	170,730	5,070	1,228	2,406	179,434
V. Net OPEB Liability (Asset) [III. - IV.]	17,061,814	1,548,335	129,411	255,747	18,995,307
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A
VII. Net OPEB Liability (Asset) as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A
VIII. Number of Eligible Participants					
IX. A. Actives	123	123	123	123	
B. Retirees/Disabled	<u>107</u>	<u>59</u>	<u>66</u>	<u>98</u>	
C. Total	230	182	189	221	
For Fiscal Year Ending June 30, 2017					
X. Service Cost	610,565	54,101	2,186	26,680	693,532
XI. Interest on Net OPEB Liability (Asset) and Service Cost	530,171	48,073	3,947	8,473	590,664
XII. Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0
XIII. Deferred (Inflows)/Outflows from Expected & Actual Experience	476,422	42,946	3,612	7,137	530,117
XIV. Deferred (Inflows)/Outflows from Changes in Assumptions	0	0	0	0	0
XV. Projected Earning on OPEB plan investments	(4,434)	(400)	(34)	(66)	(4,934)
XVI. Deferred (Inflows)/Outflows from Earnings on Investments	0	0	0	0	0
XVII. Employer Share of Costs	(354,660)	(29,741)	(4,495)	0	(388,896)
XVIII. Employer (Payments)/Withdrawals to/from OPEB Trust	(31,591)	(2,707)	(232)	(470)	(35,000)
XIX. Total Employer Contribution [XVII. + XVIII.]	(386,251)	(32,448)	(4,727)	(470)	(423,896)
XX. Other Changes	0	0	0	0	0
XXI. Net OPEB Expense [X.+XI.+XII.+XIII.+XIV.+XV.+XVI.+XIX.+XX.]	1,226,212	112,533	4,984	41,754	1,385,483

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Halifax
Plan Liabilities as of June 30, 2016
Assuming Pay as you go funding

	Town Employees and Retirees	School Employees and Retirees	Public Safety Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
I. Present Value of Future Benefits							
A. Actives	6,215,709	8,634,864	4,749,519	617,869	19,600,092	617,869	20,217,961
B. Retirees/Disabled	<u>2,518,194</u>	<u>3,262,247</u>	<u>1,525,919</u>	<u>0</u>	<u>7,306,360</u>	<u>0</u>	<u>7,306,360</u>
C. Total	8,733,903	11,897,111	6,275,438	617,869	26,906,452	617,869	27,524,321
II. Present Value of Future Normal Cost	2,115,959	3,172,129	2,863,539	197,953	8,151,627	197,953	8,349,580
III. Total OPEB Liability							
A. Actives	4,099,750	5,462,735	1,885,980	419,916	11,448,465	419,916	11,868,381
B. Retirees/Disabled	<u>2,518,194</u>	<u>3,262,247</u>	<u>1,525,919</u>	<u>0</u>	<u>7,306,360</u>	<u>0</u>	<u>7,306,360</u>
C. Total	6,617,944	8,724,982	3,411,899	419,916	18,754,825	419,916	19,174,741
IV. Fiduciary Net Position	62,573	81,213	31,667	3,981	175,453	3,981	179,434
V. Net OPEB Liability (Asset) [III. - IV.]	6,555,371	8,643,769	3,380,232	415,935	18,579,372	415,935	18,995,307
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VII. Net OPEB Liability (Asset) as % of Covered Payroll	N/A	N/A	N/A	N/A	0.0%	0.0%	N/A
VIII. Number of Eligible Participants							
A. Actives	42	58	19	4	119	4	123
B. Retirees/Disabled	<u>45</u>	<u>47</u>	<u>15</u>	<u>0</u>	<u>107</u>	<u>0</u>	<u>107</u>
C. Total	87	105	34	4	226	4	230
For Fiscal Year Ending June 30, 2017							
IX. Service Cost	215,291	278,829	177,397	22,015	671,517	22,015	693,532
X. Interest on Net OPEB Liability (Asset) and Service Cost	203,120	267,677	106,728	13,139	577,525	13,139	590,664
XI. Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0	0	0
XII. Deferred (Inflows)/Outflows from Expected & Actual Experience	182,964	241,216	94,327	11,610	518,507	11,610	530,117
XIII. Deferred (Inflows)/Outflows from Changes in Assumptions	0	0	0	0	0	0	0
XIV. Projected Earning on OPEB plan investments	(1,720)	(2,234)	(871)	(109)	(4,825)	(109)	(4,934)
XV. Deferred (Inflows)/Outflows from Earnings on Investments	0	0	0	0	0	0	0
XVI. Employer Share of Costs	(170,842)	(161,969)	(54,685)	(1,400)	(387,496)	(1,400)	(388,896)
XVII. Employer (Payments)/Withdrawals to/from OPEB Trust	(12,080)	(15,926)	(6,228)	(766)	(34,234)	(766)	(35,000)
XVIII. Total Employer Contribution [XVI. + XVII.]	(182,922)	(177,895)	(60,913)	(2,166)	(421,730)	(2,166)	(423,896)
XIX. Other Changes	0	0	0	0	0	0	0
XX. Net OPEB Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.+XVIII.+XIX.]	416,733	607,593	316,668	44,489	1,340,994	44,489	1,385,483

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Halifax

Detail of Plan Liabilities by Group and Dependency Status

Assuming Pay as you go funding - 3.00% discount rate

Plan Liabilities as of June 30, 2016

	<u>Present Value of Future Benefits</u>	<u>Total OPEB Liability (Individual Entry Age Normal)</u>	<u>Service Cost</u>
Actives			
Under Age 65			
A. Participants	2,378,707	1,302,670	79,281
B. Spouses	<u>1,445,974</u>	<u>784,561</u>	<u>48,605</u>
C. Total	3,824,681	2,087,231	127,886
Age 65 and Over			
A. Participants	9,362,996	5,548,292	325,983
B. Spouses	<u>7,030,284</u>	<u>4,232,858</u>	<u>239,663</u>
C. Total	16,393,280	9,781,150	565,646
Actives Total			
A. Participants	11,741,703	6,850,962	405,264
B. Spouses	<u>8,476,258</u>	<u>5,017,419</u>	<u>288,268</u>
C. Total	20,217,961	11,868,381	693,532
Retirees/Disabled			
Under Age 65			
A. Participants	317,483	317,483	0
B. Spouses	<u>161,860</u>	<u>161,860</u>	<u>0</u>
C. Total	479,343	479,343	0
Age 65 and Over			
A. Participants	4,484,811	4,484,811	0
B. Spouses	<u>2,342,206</u>	<u>2,342,206</u>	<u>0</u>
C. Total	6,827,017	6,827,017	0
Retirees/Disabled Total			
A. Participants	4,802,294	4,802,294	0
B. Spouses	<u>2,504,066</u>	<u>2,504,066</u>	<u>0</u>
C. Total	7,306,360	7,306,360	0
Total Population			
A. Participants	16,543,997	11,653,256	405,264
B. Spouses	<u>10,980,324</u>	<u>7,521,485</u>	<u>288,268</u>
C. Total	27,524,321	19,174,741	693,532

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Halifax

Assuming Funding over 30 years at 6.50% discount rate

Plan Liabilities as of June 30, 2016

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	7,271,275	643,591	28,817	188,847	8,132,530
B. Retirees/Disabled	<u>4,553,885</u>	<u>415,345</u>	<u>57,590</u>	<u>518</u>	<u>5,027,338</u>
C. Total	11,825,160	1,058,936	86,407	189,365	13,159,868
II. Present Value of Future Normal Cost	1,931,988	170,765	5,331	93,190	2,201,274
III. Total OPEB Liability (Individual Entry Age Normal)					
A. Actives	5,339,287	472,826	23,486	95,657	5,931,256
B. Retirees/Disabled	<u>4,553,885</u>	<u>415,345</u>	<u>57,590</u>	<u>518</u>	<u>5,027,338</u>
C. Total	9,893,172	888,171	81,076	96,175	10,958,594
IV. Fiduciary Net Position	161,988	14,543	1,328	1,575	179,434
V. Net OPEB Liability (Asset) [III. - IV.]	9,731,184	873,628	79,748	94,600	10,779,160
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A
VII. Net OPEB Liability (Asset) as % of Covered Payroll	N/A	N/A	N/A	N/A	N/A
VIII. Number of Eligible Participants					
A. Actives	123	123	123	123	
B. Retirees/Disabled	<u>107</u>	<u>59</u>	<u>66</u>	<u>98</u>	
C. Total	230	182	189	221	

For Fiscal Year Ending June 30, 2017

IX. Service Cost	222,437	19,732	755	8,120	251,044
X. Interest on Net OPEB Liability (Asset) and Service Cost	273,725	24,568	2,214	2,825	303,332
XI. Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0
XII. Deferred (Inflows)/Outflows from Expected & Actual Experience	0	0	0	0	0
XIII. Deferred (Inflows)/Outflows from Changes in Assumptions	(1,434,691)	(128,801)	(11,758)	(13,947)	(1,589,197)
XIV. Projected Earning on OPEB plan investments	(4,454)	(400)	(37)	(43)	(4,934)
XV. Deferred (Inflows)/Outflows from Earnings on Investments	0	0	0	0	0
XVI. Employer Share of Costs	(354,661)	(29,741)	(4,494)	0	(388,896)
XVII. Employer (Payments)/Withdrawals to/from OPEB Trust	(867,118)	(77,847)	(7,106)	(8,430)	(960,500)
XVIII. Total Employer Contribution [XVI. + XVII.]	(1,221,779)	(107,588)	(11,600)	(8,430)	(1,349,396)
XIX. Other Changes	0	0	0	0	0
XX. Net OPEB Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.+XVIII.+XIX.]	(2,164,762)	(192,488)	(20,425)	(11,475)	(2,389,151)

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

Town of Halifax

Plan Liabilities as of June 30, 2016

Assuming Funding over 30 years at 6.50% discount rate

	Town Employees and Retirees	School Employees and Retirees	Public Safety Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
I. Present Value of Future Benefits							
A. Actives	2,500,225	3,473,312	1,910,460	248,533	7,883,997	248,533	8,132,530
B. Retirees/Disabled	<u>1,732,711</u>	<u>2,244,677</u>	<u>1,049,950</u>	<u>0</u>	<u>5,027,338</u>	<u>0</u>	<u>5,027,338</u>
C. Total	4,232,936	5,717,989	2,960,410	248,533	12,911,335	248,533	13,159,868
II. Present Value of Future Normal Cost	557,849	836,297	754,940	52,188	2,149,086	52,188	2,201,274
III. Total OPEB Liability							
A. Actives	2,048,861	2,730,017	942,524	209,854	5,721,402	209,854	5,931,256
B. Retirees/Disabled	<u>1,732,711</u>	<u>2,244,677</u>	<u>1,049,950</u>	<u>0</u>	<u>5,027,338</u>	<u>0</u>	<u>5,027,338</u>
C. Total	3,781,572	4,974,694	1,992,474	209,854	10,748,740	209,854	10,958,594
IV. Fiduciary Net Position	62,573	81,213	31,667	3,981	175,453	3,981	179,434
V. Net OPEB Liability (Asset) [III. - IV.]	3,718,999	4,893,481	1,960,807	205,873	10,573,287	205,873	10,779,160
VI. Annual Covered Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VII. Net OPEB Liability (Asset) as % of Covered Payroll	N/A	N/A	N/A	N/A	0.0%	0.0%	N/A
VIII. Number of Eligible Participants							
A. Actives	42	58	19	4	119	4	123
B. Retirees/Disabled	<u>45</u>	<u>47</u>	<u>15</u>	<u>0</u>	<u>107</u>	<u>0</u>	<u>107</u>
C. Total	87	105	34	4	226	4	230
For Fiscal Year Ending June 30, 2017							
IX. Service Cost	77,931	100,930	64,214	7,969	243,075	7,969	251,044
X. Interest on Net OPEB Liability (Asset) and Service Cost	109,177	134,571	53,922	5,662	297,670	5,662	303,332
XI. Deferred (Inflows)/Outflows from Plan Design Changes	0	0	0	0	0	0	0
XII. Deferred (Inflows)/Outflows from Expected & Actual Experience	0	0	0	0	0	0	0
XIII. Deferred (Inflows)/Outflows from Changes in Assumptions	(548,397)	(721,422)	(288,945)	(30,433)	(1,558,764)	(30,433)	(1,589,197)
XIV. Projected Earning on OPEB plan investments	(1,721)	(2,233)	(871)	(109)	(4,825)	(109)	(4,934)
XV. Deferred (Inflows)/Outflows from Earnings on Investments	0	0	0	0	0	0	0
XVI. Employer Share of Costs	(170,842)	(161,969)	(54,685)	(1,400)	(387,496)	(1,400)	(388,896)
XVII. Employer (Payments)/Withdrawals to/from OPEB Trust	(331,447)	(436,023)	(174,637)	(18,393)	(942,107)	(18,393)	(960,500)
XVIII. Total Employer Contribution [XVI. + XVII.]	(502,289)	(597,992)	(229,322)	(19,793)	(1,329,603)	(19,793)	(1,349,396)
XIX. Other Changes	0	0	0	0	0	0	0
XX. Net OPEB Expense [IX.+X.+XI.+XII.+XIII.+XIV.+XV.+XVIII.+XIX.]	(865,299)	(1,086,146)	(401,002)	(36,704)	(2,352,447)	(36,704)	(2,389,151)

Overview of GASB 74 and 75

Before Statements 74 and 75, GASB statement 45 established the reporting standards for Other Postemployment Benefit (“OPEB”) plans. It was designed to recognize the Other Postemployment Benefits earned by employees throughout their working career vs. when they are paid in retirement – accrual accounting vs. “pay-as-you-go” accounting. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Service Cost”. These amounts are reflected in your financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment.

In 2012 GASB issued GASB Statements 67 and 68 to update and standardize the financial reporting of pension liabilities. This increased the transparency of pension liabilities by moving them to the balance sheet and made financial statement disclosures of pension liabilities more comparable between municipal entities. GASB Statements 74 and 75 are designed to have the same effect on OPEB plans.

GASB 74 and 75 require retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 74 only applies in situations where a separate trust is established to prefund these benefits. GASB 75 requires employers to perform periodic actuarial valuations to determine annual accounting costs and to keep a running tally of the extent to which these amounts are over or under funded.

GASB 74 and 75 apply to those benefits provided after retirement, except for pension benefits, such as medical, dental and life insurance. The philosophy behind the accounting standard is that these post-employment benefits are part of the compensation earned by employees in return for their services, and the cost of these benefits should be recognized while employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 74 and 75 extend this practice to all other post-employment benefits.

Overview of GASB 74 and 75

(continued)

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

Turnover and retirement rates: How likely is it that an employee will qualify for post-employment benefits and when will they start?

Medical inflation and claims cost assumptions: When an employee starts receiving post-employment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?

Mortality assumption: How long is a retiree likely to receive benefits?

Discount rate assumption: What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the Town, the present value is divided into three pieces: the part that is attributed to past years (the "Total OPEB Liability" or "Past Service Liability"), the part that is being earned this year (the "Service Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Service Cost have been calculated, the next step is to determine an actuarially determined contribution. This is an amount that if paid annually would fully prefund the benefits for current active and retired employees. This consists of two pieces:

- ✓ Service Cost – because the benefits earned by active employees each year should be paid for each year
- ✓ Past Service Cost – a catch-up payment to fund the Accrued Liability over a period of time determined by an actuary

The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the Town's financial statements as the Net OPEB Liability (NOL). If you decide to fully fund the NOL this will appear in the financial statement as a Net OPEB Asset. In addition, the Discount Rate used to calculate the liabilities must reflect the expected investment income of whatever funds are set aside to prefund the benefits; if there is no prefunding then the Discount Rate will be much lower and the liabilities significantly higher than if the benefits are prefunded.

Commentary on Plan Experience and Contribution Amounts

1. **GASB 74/75 – How we got here:**

GASB 74 and 75 were designed to recognize the Other Postemployment Benefits (“OPEB”) earned by employees throughout their working career vs. when they are paid in retirement – accrual accounting vs. “pay-as-you-go” accounting while increasing disclosures to better reflect the plan’s liabilities and future funding requirements. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Service Cost”. These amounts are reflected in your financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment. Additionally, GASB 74 and 75 require increased disclosures comparable to those required under GASB 67 and 68 and interest rates used in the valuation are more closely tied to the plan’s underlying investment and funding policy.

2. **GASB 74 and 75 Impact**

The Town has adopted GASB 74 and 75 for its Fiscal Year ending June 30, 2017. The adoption of GASB 74/75 introduces a new actuarial cost method and discount rate as well as new disclosures and methodologies for reporting plan liabilities and OPEB expenses. Significant changes have been made to the recognition of OPEB expenses, making the comparison of Net OPEB Expense in the current valuation to the expenses reported under GASB 45 misleading. The liability reported on the Town’s balance sheet will increase dramatically as GASB 74/75 require the recognition of liabilities immediately rather than recognizing liabilities (Net OPEB Obligation) over a 30 year period as GASB 45 allowed. Please keep these changes in mind when considering any comparison to previously reported liabilities and expenses.

3. **Summary of Results:**

Plan experience was less favorable than expected - for the year ending on the reporting date June 30, 2017, the Plan saw an experience loss of \$2,740,707 or 16.86%. This was mainly due to premiums for Non-Medicare integrated plans increasing more than the expected 10% increase. This was somewhat offset by premiums for Medicare integrated plans increasing less than the expected 10% increase. The actuarial experience loss is amortized into the net OPEB expense over time until fully recognized.

Commentary on Plan Experience and Contribution Amounts
(continued)

4. **Balance Sheet Items**

	June 30, 2016	June 30, 2014
Total OPEB Liability	\$19,174,741	\$11,363,813
Fiduciary Net Position	\$179,434	\$105,791
Net OPEB Liability	\$18,995,307	\$11,258,022
Funded Ratio	0.94%	0.93%

5. **Income Statement Items**

	June 30, 2017	June 30, 2015
Service Cost	\$693,532	\$449,591
Interest Expense	\$590,664	N/A
(Inflow)/Outflow from Plan Design Changes	\$0	N/A
(Inflow)/Outflow from Plan Experience	\$530,117	N/A
(Inflow)/Outflow from Changes in Assumptions	\$0	N/A
Projected Investment Earnings	\$(4,934)	N/A
(Inflow)/Outflow from Earnings on Investments	\$0	N/A
Employer Share of Costs	\$(388,896)	\$(368,764)
Employer Payments (Withdrawals) to/from Trust	\$(35,000)	\$(35,000)
Total Employer Payments	\$(423,896)	\$(403,764)
Other Changes	\$0	N/A
Net OPEB Expense	\$1,385,483	N/A
Interest Rate	3.00%	4.00%

SECTION II

SUMMARY OF PLAN PROVISIONS

<u>Effective Date</u>	July 1, 2008 - GASB 45 is adopted. June 30, 2016 - GASB 74 is adopted June 30, 2016 - GASB 75 is adopted
<u>Plan Year</u>	July 1 through June 30.
<u>Eligibility</u>	An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Participant Contributions</u>	50% of premiums for Medical, Dental and Life insurance.
<u>Benefits Offered</u>	Comprehensive Medical Insurance offered through Blue Cross of Massachusetts and Harvard Pilgrim Health Group as well as Dental and Group Term Life Insurance.
<u>Normal Retirement Date</u>	The normal retirement date is the first day of the month following a participant's 65th birthday.
<u>Early Retirement</u>	Early retirement is available for any participant who has attained benefit eligibility.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

A. ACTUARIAL COST METHOD

The actuarial cost method used to calculate the costs and liabilities of the plan is the Individual Entry Age Normal Actuarial Cost Method. Under this method, the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement. The annual normal cost for each active member is a level percent of payroll. The actuarial accrued liability is the actuarial present value of the projected benefit times the ratio of past service to expected total service at retirement/termination.

Actuarial gains and losses are calculated each year and amortized into the OPEB expense. Gains and losses arising from plan design changes are recognized immediately. Gains and losses arising from differences between expected and actual investment returns are amortized over a five (5) year period. Gain and losses arising from differences between expected and actual plan experience and changes in actuarial assumptions are amortized over the remaining lifetime of all active and retired plan participants (5.17 years for the Town for the 2017 fiscal year).

All employees who are plan participants on a valuation date are included in the actuarial valuation.

B. ASSET VALUATION METHOD

The actuarial value of assets is equal to the Market Value of the Plan's assets as of the valuation date.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS

We used the following assumptions in this year's actuarial valuation:

Pre-Retirement Mortality

It is assumed that pre-retirement mortality is represented by the RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females.

Post-Retirement Mortality

It is assumed that post-retirement mortality is represented by the RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females.

Disabled Mortality

It is assumed that disabled mortality is represented by the RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year 2012 for males and females.

Discount Rate

3.00% per annum (previously 4.00%)

Long Term Rate of Return

2.75% (based on investment policy)

Municipal Bond Rate

2.71% as of June 30, 2016 (source: S&P Municipal Bond 20-Year High Grade Index - SAPIHG)

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Employee Termination

It was assumed that employees would terminate employment in accordance with the sample rates shown in the following table:

Non-Public Safety Employees						
<u>Age</u>	<u>0-4 Years of Service (Males)</u>	<u>0-4 Years of Service (Females)</u>	<u>5-9 Years of Service (Males)</u>	<u>5-9 Years of Service (Females)</u>	<u>10+ Years of Service (Males)</u>	<u>10+ Years of Service (Females)</u>
20	27.00%	27.00%	12.00%	12.00%	6.00%	6.00%
30	23.00%	23.00%	10.00%	10.00%	5.50%	5.50%
40	16.00%	16.00%	8.00%	8.00%	3.50%	3.50%
50	18.00%	18.00%	6.00%	6.00%	3.00%	3.00%
60	18.00%	18.00%	5.00%	5.00%	3.50%	3.50%

Public Safety Employees		
<u>Service</u>	<u>Public Safety Male</u>	<u>Public Safety Female</u>
0	9.00%	9.00%
5	6.00%	6.00%
10	3.50%	3.50%
15	2.00%	2.00%
20	1.50%	1.50%
25	1.50%	1.50%
30	1.50%	1.50%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Retirement Rates

It was assumed that the following percentage of eligible employees would retire each year:

<u>Age</u>	<u>Non Public Safety Male</u>	<u>Non Public Safety Female</u>	<u>Public Safety</u>
45	0.00%	0.00%	1.00%
46	0.00%	0.00%	1.00%
47	0.00%	0.00%	1.00%
48	0.00%	0.00%	1.00%
49	0.00%	0.00%	1.00%
50	1.00%	1.50%	2.00%
51	1.00%	1.50%	2.00%
52	1.00%	2.50%	2.00%
53	1.00%	2.50%	5.00%
54	2.00%	2.50%	7.50%
55	2.00%	5.50%	15.00%
56	2.50%	6.50%	10.00%
57	2.50%	6.50%	10.00%
58	5.00%	6.50%	10.00%
59	6.50%	6.50%	15.00%
60	12.00%	5.00%	20.00%
61	20.00%	13.00%	20.00%
62	30.00%	15.00%	25.00%
63	25.00%	12.50%	25.00%
64	22.00%	18.00%	30.00%
65	40.00%	15.00%	100.00%
66	25.00%	20.00%	100.00%
67	25.00%	20.00%	100.00%
68	30.00%	25.00%	100.00%
69	30.00%	20.00%	100.00%
70	100.00%	100.00%	100.00%
71	100.00%	100.00%	100.00%
72	100.00%	100.00%	100.00%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

Disability rates

It was assumed that the following percentage of eligible employees would become permanently disabled each year:

<u>Age</u>	<u>Non Public Safety</u>	<u>Public Safety</u>
20	0.01%	0.20%
25	0.01%	0.20%
30	0.01%	0.21%
35	0.03%	0.40%
40	0.07%	0.71%
45	0.10%	1.00%
50	0.13%	1.10%
55	0.14%	0.80%
60	0.12%	0.80%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Healthcare Trend

It was assumed that healthcare costs would increase in accordance with the trend rates in the following table:

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	5.0%	5.0%
FY 2016	5.0%	5.0%
FY 2017	5.0%	5.0%
FY 2018	5.0%	5.0%
FY 2019	5.0%	5.0%
FY 2020+	5.0%	5.0%

Participation Rate

It was assumed that 80% of employees eligible to receive retirement benefits would enroll in the retiree medical and dental plans upon retirement. For life insurance plans, it was assumed that 80% of eligible employees would elect coverage upon retirement.

Percent Married

It was assumed that 80% of male participants and 70% of female participants who elect retiree healthcare coverage for themselves would also elect coverage for a spouse upon retirement. It was further assumed that a male spouse is three years older than a female spouse and same sex spouses are assumed to be the same age. For current retirees, the actual census information was used.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Compensation Increases

3.00% per year.

Open Group Forecast

It was assumed for projecting plan liabilities in future years that the active population would remain unchanged and that those who terminate employment or retire will be replaced with new employees with the demographics below:

Open Group Forecast Population Demographics

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	8.0%	5.0%
30	7.0%	14.0%
40	20.0%	19.0%
50	10.0%	10.0%
60	<u>3.0%</u>	<u>4.0%</u>
Total	48.0%	52.0%

Additional Comments

The values in this report reflect a closed group and do not reflect any new entrants after the valuation date.

For purposes of this valuation, retiree contributions were assumed to increase with the same trend rate as health care claims.

Medicare Part B Penalties are not reflected

Medicare Part B Reimbursement is not reflected

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

As part of the Other Post-Employment Benefits Program, there are situations where the cost is borne partly or entirely on the retirees. In most cases, the premium that is used to split the cost is lower than the true cost of providing the medical benefits, for two reasons:

- ✓ The cost sharing program is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:
- ✓ The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an "implicit subsidy". GASB 74 and 75 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. Actuarial Standard of Practice No. 6 ("ASOP 6") requires us to recognize this implicit subsidy while the plan sponsor may only pay the premiums billed by an insurance provider. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based on factors developed by actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed on the prior page.

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the retiree medical program – different retirees pay different percentages based on their union, date of retirement, age at retirement, and other factors.

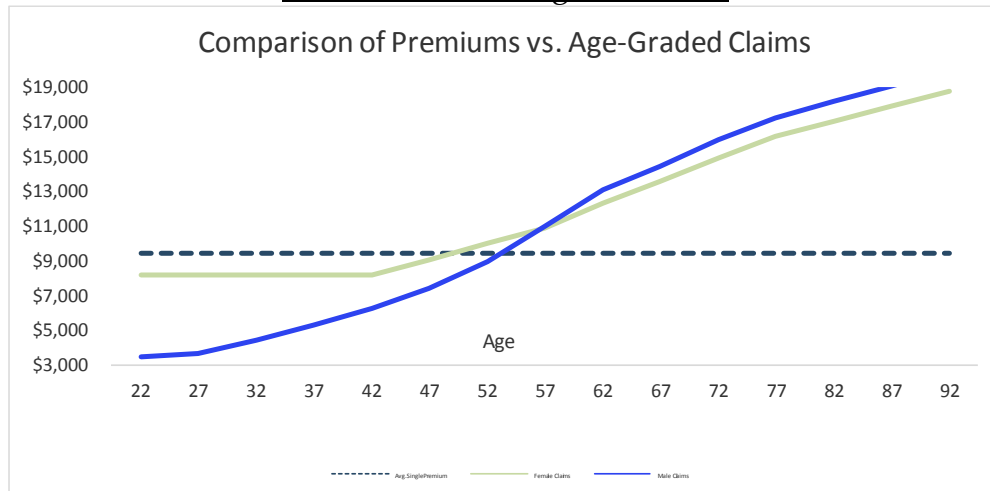
SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

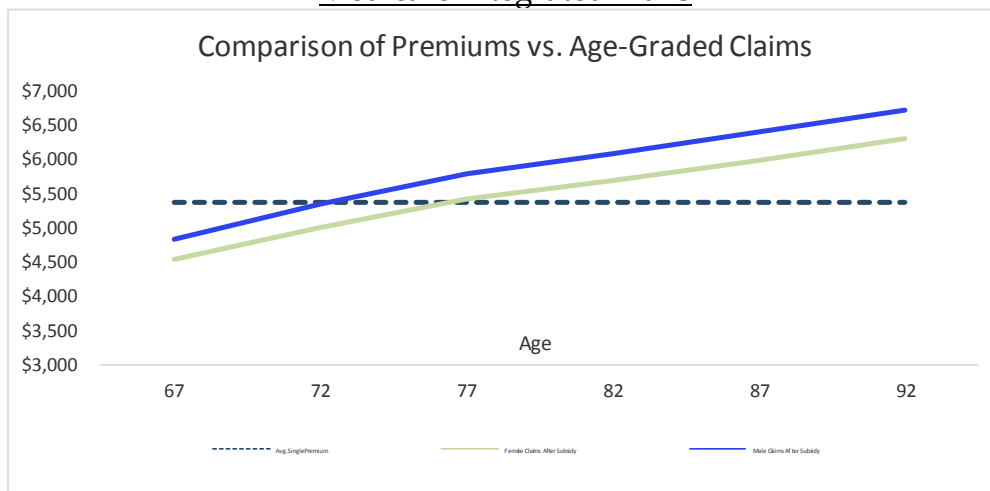
D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

For illustrative purposes, the charts below show the impact of the implicit cost described previously. You can see that individuals are expected to utilize more medical services with age while the underlying premiums are flat. As such, you will see that the age adjusted claims intersect the premium rates at approximately age 50 for females and age 55 for males on the Non-Medicare Integrated Plans and age 75 for females & age 75 for males on the Medicare Integrated Plans.

Non-Medicare Integrated Plans



Medicare Integrated Plans



SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

I. CLAIMS COSTS DEVELOPMENT - Based on Active & Retiree Incurred Claims & Premiums

	Number of Participants			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
Network Blue	23		23	46
Blue Care PPO			4	4
Network Blue Rate Saver				0
Blue Care Elect Benchmark plan				0
Network Blue Benchmark plan			1	1
Harvard Pilgrim	10		12	22
Harvard Pilgrim HMO Rate Saver				0
Harvard Pilgrim Benchmark				0
HP Medicare Enhance	7	6		13
BCBS Medex	13	26		39
Total	53	32	40	125

	Per Contract Costs (monthly) - FY 2017		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Network Blue	745.00	0.00	1,986.00
Blue Care PPO	1,057.00	0.00	2,506.00
Network Blue Rate Saver	712.00	0.00	1,898.00
Blue Care Elect Benchmark plan	966.00		2,292.00
Network Blue Benchmark plan	682.00		1,817.00
Harvard Pilgrim	804.00		2,141.00
Harvard Pilgrim HMO Rate Saver	768.00		2,045.00
Harvard Pilgrim Benchmark	736.00		1,960.00
HP Medicare Enhance	483.00	966.00	
BCBS Medex	437.00	874.00	

Gross Expected FY 2017 Incurred Premiums	1,751,616
Adjustment to reflect children's claims	(237,900)
Total Expected FY 2017 Incurred Premiums (adults only)	1,513,716

II. PRE-65 AND POST-65 PER CAPITA RETIREE ANNUAL CLAIM COSTS

	<u>Employer</u> <u>Primary</u>	<u>Medicare</u> <u>Primary</u>
Age 65	13,361	4,475
Average Age	11,428	5,369

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

III. BREAKDOWN OF CLAIM COSTS

ALL ACTIVE EMPLOYEES AND SPOUSES

Age Bracket	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
24 & Under	1.312	0.549	8,197	3,430	0
25 to 29	1.312	0.591	8,197	3,693	19,276
30 to 34	1.312	0.712	8,197	4,449	50,584
35 to 39	1.312	0.850	8,197	5,311	54,032
40 to 44	1.312	1.000	8,197	6,248	22,642
45 to 49	1.456	1.193	9,097	7,454	84,398
50 to 54	1.599	1.441	9,991	9,003	190,928
55 to 59	1.740	1.753	10,872	10,953	185,472
60 to 64	1.968	2.102	12,296	13,133	215,728
65 to 69	2.168	2.316	13,546	14,470	43,410
70 & Over	2.396	2.557	14,970	15,976	0
Total					866,470

ALL RETIREES AND SPOUSES - NOT MEDICARE ELIGIBLE

Age Bracket	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
44 & Under	1.312	1.000	8,197	6,248	0
45 to 49	1.456	1.193	9,097	7,454	0
50 to 54	1.599	1.441	9,991	9,003	28,985
55 to 59	1.740	1.753	10,872	10,953	32,697
60 to 64	1.968	2.102	12,296	13,133	75,450
65 to 69	2.168	2.316	13,546	14,470	0
70 to 74	2.396	2.557	14,970	15,976	0
75 to 79	2.593	2.769	16,201	17,301	0
80 to 84	2.724	2.910	17,020	18,182	0
85 to 89	2.864	3.059	17,894	19,113	0
90 & Over	3.010	3.215	18,806	20,087	0
Total					137,132

ALL RETIREES AND SPOUSES - MEDICARE ELIGIBLE

Age Bracket	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
65 to 69	2.168	2.316	4,537	4,847	107,451
70 to 74	2.396	2.557	5,014	5,351	151,135
75 to 79	2.593	2.769	5,427	5,795	111,484
80 to 84	2.724	2.910	5,701	6,090	70,357
85 to 89	2.864	3.059	5,994	6,402	43,590
90 & Over	3.010	3.215	6,299	6,728	26,054
Total					510,071
Grand Totals					1,513,673

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

E. DEVELOPMENT OF REPRESENTATIVE DENTAL PER CAPITA CLAIMS COSTS

I. CLAIMS COSTS DEVELOPMENT - with Active & Retiree Incurred Premiums

	Per Contract Costs (monthly) - FY 2017		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
Dental Plan	27.95		105.17

FY 2017 Expected Per Person Rate 335

EXHIBIT A**Financial Statement Disclosure**
(As of June 30, 2016)

The GASB Standards for accounting and financial reporting for postemployment benefits other than pensions require the following disclosures in the financial statements related to the retiree medical, dental and life insurance benefits;

1. A DESCRIPTION OF THE RETIREE MEDICAL INSURANCE PROGRAM:

- a. Plan Type: Comprehensive Medical Insurance offered through Blue Cross of Massachusetts and Harvard Pilgrim Health Group
- b. Administrator: Town of Halifax
- c. Eligibility: An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.
- d. Cost Sharing: Employees will pay 50% of premiums in retirement.

2. A DESCRIPTION OF THE DENTAL INSURANCE PROGRAM:

- a. Plan Type: Comprehensive Dental
- b. Administrator: Town of Halifax
- c. Eligibility: Same as above
- d. Cost sharing: Employees will pay 50% of premiums in retirement.

3. A DESCRIPTION OF THE RETIREE LIFE INSURANCE PROGRAM:

- a. Plan Type: Group Term Life Insurance - \$5,000
- b. Administrator: Town of Halifax
- c. Eligibility: Same as above
- d. Cost sharing: Employees will pay 50% of premiums in retirement.

EXHIBIT AFinancial Statement Disclosure

(As of June 30, 2016)

(continued)

4. RETIREE MEDICAL AND LIFE INSURANCE CONTRIBUTIONS:

Group	Individual	Family
Medical	50%	50%
Dental	50%	50%
Life	50%	N/A

5. FUNDING POLICY

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. For the 2017 fiscal year, total Town premiums plus implicit costs for the retiree medical program are \$388,896. The Town is also projected to make a contribution to an OPEB Trust of \$35,000 for the 2017 fiscal year for a total contribution of \$423,896.

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

6. INVESTMENT POLICY

The Town has not established a formal Investment Policy. The chart below shows the development of a long-term rate of return on assets that could be used for funded periods if the Investment Policy below were adopted.

Investment Target Allocation & Expected Long-Term Real Rate of Return			
Asset Class	Target Allocation	Asset Class	Long-Term Expected Real Rate of Return
Domestic Equity - Large Cap	0.00%	Domestic Equity - Large Cap	4.00%
Domestic Equity - Small/Mid Cap	0.00%	Domestic Equity - Small/Mid Cap	6.00%
International Equity - Developed Market	0.00%	International Equity - Developed Market	4.50%
International Equity-Emerging Market	0.00%	International Equity-Emerging Market	7.00%
Domestic Fixed Income	0.00%	Domestic Fixed Income	2.00%
International Fixed Income	0.00%	International Fixed Income	3.00%
Alternatives	0.00%	Alternatives	6.50%
Real Estate	0.00%	Real Estate	6.25%
Cash	<u>100.00%</u>	Cash	<u>0.00%</u>
Total	<u>100.00%</u>		
		I. Real Rate of Return	<u>0.00%</u>
		II. Inflation Assumption	2.75%
		III. Total Nominal Return [I. + II.]	2.75%
		IV. Investment Expense	N/A
		V. Net Investment Return [III.-IV.]	2.75%

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

7. **ACTUARIALLY DETERMINED CONTRIBUTION (ADC)**

The Town's Actuarially Determined Contribution (ADC) is an amount actuarially determined in accordance with the parameters of GASB Statement No. 74/75 which represents a level of funding that, if paid on an ongoing basis, is projected to cover the service cost each year and amortize any unfunded actuarial liabilities (or funding excess). The following table shows the components of the Town's annual ADC for the fiscal year and the amount actually contributed to the plan:

Actuarially Determined Contribution - Deficiency / (Excess)	
	<u>June 30, 2017</u>
I. Service Cost	693,532
II. 30 year amortization of NOL at 3.00%	<u>940,900</u>
III. Actuarial Determined Contribution [I. + II.]	1,634,432
IV. Contributions in relation to the actuarially determined contribution	<u>(423,896)</u>
V. Contribution deficiency / (excess) [III. + IV.]	<u>1,210,536</u>
Covered employee payroll	N/A
Contributions as a % of covered employee payroll	N/A

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

8. FUNDED STATUS AND FUNDING PROGRESS

As of June 30, 2016, the most recent valuation date, the plan was 0.94% funded. The Total OPEB Liability (TOL) for benefits was \$19,174,741, and the Fiduciary Net Position was \$179,434, resulting in a Net OPEB Liability (NOL) of \$18,995,307. The covered payroll (annual payroll of active employees covered by the plan) was \$ N/A and the ratio of the NOL to the covered payroll was N/A.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence 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 actuarially determined contribution of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented in the required supplementary information following the financial statements, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the Total OPEB Liabilities for benefits.

Actuarial Valuation Date	Fiduciary Net Position	Total OPEB Liability	Net OPEB Liability	Funded Ratio	Covered Payroll	NOL as a % of Covered Payroll
06/30/2018 (est.)	\$260,401	\$20,995,319	\$20,734,918	1.2%	N/A	N/A
06/30/2017 (est.)	\$219,368	\$20,090,066	\$19,870,698	1.1%	N/A	N/A
06/30/2016	\$179,434	\$19,174,741	\$18,995,307	0.9%	N/A	N/A
06/30/2015	\$141,174	\$11,902,425	\$11,761,251	1.2%	\$4,976,171	236.4%
06/30/2014	\$105,791	\$11,363,813	\$11,258,022	0.9%	\$4,796,309	234.7%
06/30/2013	\$70,000	\$12,511,980	\$12,441,980	0.6%	N/A	N/A

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

9. FIDUCIARY NET POSITION

Statement of Fiduciary Net Position June 30, 2016 and June 30, 2017		
	<u>June 30, 2017 (Projected)</u>	<u>June 30, 2016</u>
Assets		
I. Cash and cash equivalents	0	0
<u>Receivables & Prepaid expenses:</u>		
II. Contributions	0	0
III. Investment Income	0	0
IV. Receivables from brokers for unsettled trades	0	0
V. Prepaid expenses	<u>0</u>	<u>0</u>
VI. Total Receivables [II.+III.+IV.+V.]	<u>0</u>	<u>0</u>
<u>OPEB Trust Investments:</u>		
VII. Fixed Income	0	0
VIII. Stocks	0	0
IX. Cash and cash equivalents	219,368	179,434
X. Real estate	0	0
XI. Alternative investments	<u>0</u>	<u>0</u>
XII. Total Investments [VII.+VIII.+IX.+X.+XI.]	<u>219,368</u>	<u>179,434</u>
Invested securities lending cash collateral	0	0
Capital assets, net of accumulated depreciation	0	0
Total Assets	219,368	179,434
Liabilities		
XIII. Accrued expenses and benefits payable	0	0
XIV. Securities lending cash collateral	0	0
XV. Payable to brokers for unsettled trades	<u>0</u>	<u>0</u>
XVI. Total liabilities [XIII.+XIV.+XV.]	<u>0</u>	<u>0</u>
XVII. Net Position restricted for OPEB [XII.-XVI.]	219,368	179,434

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

9. FIDUCIARY NET POSITION (CONTINUED)

Statement of Changes in Fiduciary Net Position for the Year ended June 30, 2017 (Projected)	
	<u>June 30, 2016</u>
Additions	
<u>Contributions</u>	
Employer Contributions to OPEB Trust	<u>35,000</u>
Total Contributions	35,000
<u>Investment Income / (loss)</u>	
Interest	0
Dividends	0
Equity fund income, net	0
Net increase in fair value of investments	4,934
Securities lending income	0
Less investment expenses:	
Direct investment expense	0
Securities lending management fees	0
Securities lending borrower rebates	<u>0</u>
Net investment income	4,934
Other income	<u>0</u>
Total Additions	<u>39,934</u>
Deductions	
Service benefits	0
Disability benefits	0
Death benefits	0
Refunds	0
Administrative expenses	<u>0</u>
Total deductions	<u>0</u>
Net increase (decrease)	39,934
Net Position restricted for OPEB	
Beginning of year	<u>179,434</u>
End of year	219,368

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

10. OPEB LIABILITY, OPEB EXPENSE AND ADC

Fiscal Year Ending June 30, 2017							
	Town Employees and Retirees	School Employees and Retirees	Public Safety Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
I. Total OPEB Liability	6,617,944	8,724,982	3,411,899	419,916	18,754,825	419,916	19,119,119
II. Fiduciary Net Position as of June 30, 2016	62,573	81,213	31,667	3,981	175,453	3,981	1,157,768
III. Net OPEB Liability (Asset) [I.-II.]	6,555,371	8,643,769	3,380,232	415,935	18,579,372	415,935	18,961,351
IV. Service Cost	215,291	278,829	177,397	22,015	671,517	22,015	694,064
V. Interest on Net OPEB Liability (Asset) and Service Cost	203,120	267,677	106,728	13,139	577,525	13,139	598,298
VI. Deferred (Inflows)/Outflows from Plan Design Changes	-	-	-	-	-	-	-
VII. Deferred (Inflows)/Outflows from Plan Experience	182,964	241,216	94,327	11,610	518,507	11,610	538,628
VIII. Deferred (Inflows)/Outflows from Changes in Assumptions	-	-	-	-	-	-	-
IX. Projected Earnings on OPEB plan investments	(1,720)	(2,234)	(871)	(109)	(4,825)	(109)	(9,068)
X. Deferred (Inflows)/Outflows from Earnings on Investments	-	-	-	-	-	-	-
XI. Employer Share of Costs	(170,842)	(161,969)	(54,685)	(1,400)	(387,496)	(1,400)	(376,392)
XII. Employer Payments (Withdrawals) to/from OPEB Trust	(12,080)	(15,926)	(6,228)	(766)	(34,234)	(766)	(39,950)
XIII. Total Employer Contribution [X.+XI.]	(182,922)	(177,895)	(60,913)	(2,166)	(421,730)	(2,166)	(416,354)
XIV. Net OPEB Expense [IV.+V.+VI.+VII.+VIII.+IX.+X.+XIII.]	416,733	607,593	316,668	44,489	1,340,994	44,489	1,360,966
XV. Actuarial Determined Contribution (ADC)	564,106	743,707	290,826	35,793	1,598,639	35,793	1,668,864
XVI. Total Expected Contribution	182,922	177,895	60,913	2,166	421,730	2,166	416,354
XVII. Percentage of ADC Contributed [XVI./XV.]	32%	24%	21%	6%	26%	6%	

Fiscal Year Ending June 30, 2018							
	Town Employees and Retirees	School Employees and Retirees	Public Safety Employees and Retirees	Water Enterprise Employees and Retirees	Government Activities	Business-Type Activities	Total
I. Total OPEB Liability	6,933,858	9,141,478	3,574,769	439,961	19,650,105	439,961	20,089,132
II. Fiduciary Net Position as of June 30, 2017	76,374	99,372	38,766	4,856	214,512	4,856	2,133,836
III. Net OPEB Liability (Asset) [I.-II.]	6,857,484	9,042,106	3,536,003	435,105	19,435,593	435,105	19,955,296
IV. Service Cost	232,198	300,726	191,328	23,744	724,252	23,744	775,992
V. Interest on Net OPEB Liability (Asset) and Service Cost	212,442	279,962	111,626	13,742	604,030	13,742	625,544
VI. Deferred (Inflows)/Outflows from Plan Design Changes	-	-	-	-	-	-	-
VII. Deferred (Inflows)/Outflows from Plan Experience	182,964	241,216	94,327	11,610	518,507	11,610	538,628
VIII. Deferred (Inflows)/Outflows from Changes in Assumptions	-	-	-	-	-	-	-
IX. Projected Earnings on OPEB plan investments	(2,103)	(2,731)	(1,065)	(134)	(5,899)	(134)	(9,966)
X. Deferred (Inflows)/Outflows from Earnings on Investments	-	-	-	-	-	-	-
XI. Employer Share of Costs	(187,995)	(178,231)	(60,176)	(1,541)	(426,402)	(1,541)	(429,885)
XII. Employer Payments (Withdrawals) to/from OPEB Trust	(12,080)	(15,926)	(6,228)	(766)	(34,234)	(766)	(39,950)
XIII. Total Employer Contribution [X.+XI.]	(200,075)	(194,157)	(66,404)	(2,307)	(460,636)	(2,307)	(415,849)
XIV. Net OPEB Expense [IV.+V.+VI.+VII.+VIII.+IX.+X.+XIII.]	425,426	625,016	329,812	46,655	1,380,254	46,655	1,433,818
XV. Actuarial Determined Contribution (ADC)	564,106	743,707	290,826	35,793	1,598,639	35,793	1,668,864
XVI. Total Expected Contribution	200,075	194,157	66,404	2,307	460,636	2,307	415,849
XVII. Percentage of ADC Contributed [XVI./XV.]	35%	26%	23%	6%	29%	6%	

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

11. EFFECT OF 1% CHANGE IN HEALTHCARE TREND

In the event that healthcare trend rates were 1% higher than forecast and employee contributions were to increase at the forecast rates, the Total OPEB Liability would increase to \$28,637,154 or by 49.3% and the corresponding Service Cost would increase to \$1,252,272 or by 80.6%. If such healthcare trend rates were 1% less than forecast and employee contributions were to increase at the forecast rate, the Total OPEB Liability would decrease to \$12,709,725 or by 33.7% and the corresponding Service Cost would decrease to \$348,413 or by 49.8%.

Impact of a 1% Change in the Healthcare Trend Rate as of June 30, 2017

	<u>1% Decrease (4.00%)</u>	<u>Current Trend Rate (5.00%)</u>	<u>1% Increase (6.00%)</u>
Total OPEB Liability	13,304,825	20,090,066	29,978,014
Service Cost	376,053	747,996	1,351,614

12. EFFECT OF 1% CHANGE IN DISCOUNT RATES

If the discount rate were 1% higher than what was used in this valuation, the Total OPEB Liability would decrease to \$15,713,024 or by 18.1%. If the discount rate were 1% lower than was used in this valuation, the Total OPEB Liability would increase to \$23,937,927 or by 24.8%.

Impact of a 1% Change in the Discount Rate as of June 30, 2017

	<u>1% Decrease (2.00%)</u>	<u>Current Discount Rate (3.00%)</u>	<u>1% Increase (4.00%)</u>
Total OPEB Liability	25,058,758	20,090,066	16,448,745
Service Cost	1,042,454	747,996	552,491

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

13. ACTUARIAL METHODS AND ASSUMPTIONS

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Actuarial Cost Method:	Individual Entry Age Normal
Investment Rate of Return:	3.00% per annum (previously 4.00%)
Healthcare Trend Rates	

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	5.0%	5.0%
FY 2016	5.0%	5.0%
FY 2017	5.0%	5.0%
FY 2018	5.0%	5.0%
FY 2019	5.0%	5.0%
FY 2020+	5.0%	5.0%

General Inflation Assumption:	2.75% per annum
Annual Compensation Increases:	3.00% per annum
Actuarial Value of Assets:	Market Value

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

14. GAIN/LOSS CALCULATION

Gains and losses arise from experience and contribution deficiencies and excess contributions in relation to each year's ADC under GASB 74/75.

Changes in Net OPEB Liability (Asset) Since Prior Valuation

Expected Net OPEB Liability

1. Total OPEB Liability at prior valuation date	11,363,813
2. Fiduciary Net Position at prior valuation date	<u>105,791</u>
3. Net OPEB Liability at prior valuation date [1. - 2.]	11,258,022
4. Service Cost for prior periods	899,182
5. Employer Contributions for prior periods	(794,364)
6. Interest to current valuation date	945,709
7. Changes in Assumptions	<u>3,946,051</u>
8. Expected Net OPEB Liability [3. + 4. + 5. + 6. + 7.]	16,254,600

Actual Net OPEB Liability

9. Total OPEB Liability at current valuation date	19,174,741
10. Fiduciary Net Position at current valuation date	<u>179,434</u>
11. Net OPEB Liability at current valuation date [9. - 10.]	18,995,307

(Gain)/Loss to be Recognized Immediately

(Gain)/Loss Arising from Plan Design Changes	0
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(Gain)/Loss to be Recognized Over Average Remaining Lifetime (5.17 years)

Differences Between Expected and Actual Experience	2,740,707
(Gain)/Loss from Actuarial Assumption Changes	0

(Gain)/Loss to be Recognized Over Five Years

(Gain)/Loss from Expected vs. Actual Investment Returns	0
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Total Actuarial (Gain) / Loss [11. - 8.]	2,740,707
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EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

15. RECOGNITION OF OPEB TRUST ASSETS

The State of Massachusetts has passed legislation allowing municipal entities to establish a Trust for Other Postemployment Benefits ("OPEB") under M.G.L. Chapter 32B, Section 20 for purposes of accumulating assets to pre-fund the liabilities under GASB 75. This legislation was amended effective November 9, 2016 to clarify who may adopt such a Trust and provide guidance on the ongoing operation of such a Trust. To the best of our knowledge, the Town of Halifax has established an irrevocable trust for the purposes of prefunding liabilities under GASB 74/75.

16. OPEB EXPENSE DEVELOPMENT

Components of the Town's OPEB Expenses for the Fiscal Year Ending June 30, 2017	
Description	Amount
I. Service Cost	693,532
II. Interest on Net OPEB Liability	590,664
III. Deferred (Inflows)/Outflows from Plan Design Changes*	0
IV. Deferred (Inflows)/Outflows from Plan Experience**	530,117
V. Deferred (Inflows)/Outflows from Changes of Assumptions**	0
VI. Projected earnings on OPEB plan investments	(4,934)
VII. Deferred (Inflows)/Outflows from Earnings on Plan Investments***	0
VIII. Total Employer Contributions	(423,896)
IX. OPEB Plan administrative expense	0
X. Other changes in fiduciary net position	0
XI. Net OPEB expense [I.+II.+III.+IV.+V.+VI.+VII.+VIII.+IX.+ X.]	1,385,483

* Recognized Immediately

** Amortized over 5.17 years

*** Amortized over 5 years

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

17. CHANGES IN NET OPEB LIABILITY

Changes in Net OPEB Liability			
	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
I. Balances at June 30, 2015 GASB 45	11,902,425	141,174	11,761,251
II. Change in Assumptions for GASB 75	<u>3,946,051</u>	<u>0</u>	<u>3,946,051</u>
III. Balances at June 30, 2015 GASB 75 [I. + II.]	15,848,476	141,174	15,707,302
Changes for the year:			
IV. Service Cost	641,713	0	641,713
V. Interest on Net OPEB Liability and Service Cost	489,214	4,235	484,979
VI. Changes in Benefit terms *	0	0	0
VII. Change in assumptions **	0	0	0
VIII. Differences between actual and expected experience **	2,564,102	0	2,564,102
IX. Net Investment Income	0	(975)	975
X. Employer Contributions (Withdrawals) to/from Trust	0	35,000	(35,000)
XI. Employee Contributions to Trust	0	0	0
XII. Benefit payments, including refunds of member contributions	(368,764)	0	(368,764)
XIII. Administrative expense	0	0	0
XIV. Other Charges	0	0	0
XV. Net Changes [IV.+V.+VI.+VII.+VIII.+IX.+X.+XI.+ XII.+XIII+XIV.]	<u>3,326,265</u>	<u>38,260</u>	<u>3,288,005</u>
XIV. Balances at June 30, 2016 [I.+XIII.]	19,174,741	179,434	18,995,307

* Recognized Immediately

** Amortized over 5.17 years

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

18. MONEY WEIGHTED RATE OF RETURN

Determination of Beginning & Ending Balances of OPEB Plan Investments for Purposes of Calculating the Annual Money-Weighted Rate of Return		
	Ending OPEB Plan Investments *	Beginning OPEB Plan Investments **
Assets		
Cash and cash equivalents	0	0
Receivables:		
Investment income	0	0
Receivables from brokers for unsettled trades	0	0
Investments		
Fixed income	0	0
Stocks	0	0
Cash and cash equivalents	219,368	179,434
Real estate	0	0
Alternative investments	0	0
Invested securities lending cash collateral	0	0
Liabilities		
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	0	0
Total OPEB plan investments	219,368	179,434
* From balances at June 30, 2017 (Projected)		
** From balances at June 30, 2016		

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

18. MONEY WEIGHTED RATE OF RETURN (CONTINUED)

	Plan Investments / Net External	Periods Invested	Period Weight
Beginning value - July 1, 2015	141,174	12	1.0000
Monthly net external cash flows:			
July	0	11	0.9167
August	0	10	0.8333
September	0	9	0.7500
October	0	8	0.6667
November	0	7	0.5833
December	0	6	0.5000
January	0	5	0.4167
February	0	4	0.3333
March	0	3	0.2500
April	0	2	0.1667
May	0	1	0.0833
June	35,000	0	0.0000
Ending value - June 30, 2016	179,434		
Money Weighted Rate of Return	2.31%		
Asset Value - June 30, 2016	179,434		

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

19. PLAN CASH FLOWS

Aggregate External (Noninvestment Cash Flows)	
	<u>June 30, 2017</u>
Additions	
<u>Contributions</u>	
Member contributions	0
Employer contributions	35,000
Other income	0
Deductions	
Service benefits	0
Disability benefits	0
Death benefits	0
Refunds	0
Administrative expenses	0
Beginning balances of noninvestment-related assets and liabilities *	
Contribution receivable	0
Prepaid expenses	0
Accrued expenses & benefits payable	0
Ending balances of noninvestment-related assets and liabilities **	
Contribution receivable	0
Prepaid expenses	0
Accrued expenses & benefits payable	0
Change in capital assets - depreciation	0
Aggregate external cash flows	35,000
* From balances at June 30, 2017 (Projected)	
** From balances at June 30, 2016	

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

19. PLAN CASH FLOWS (CONTINUED)

Reconciliation of Beginning & Ending Balances of OPEB Plan Investments, Aggregate External Cash Flows, and Net Investment Income	
	<u>June 30, 2017 (Projected)</u>
I. Total OPEB plan investments, beginning of year	179,434
II. Aggregate external cash flows	35,000
III. Net investment income	<u>4,934</u>
IV. Total OPEB plan investments, end of year [I.+II.+III.]	<u><u>219,368</u></u>

EXHIBIT A

Financial Statement Disclosure (As of June 30, 2016) (continued)

20. PLAN PROJECTION DISCLOSURES

Projection of Contributions as of June 30, 2016							
Fiscal Year	I. Payroll for current employees	II. Payroll for future employees	III. Total employee payroll [I.+II.]	IV. Contributions from current employees	V. Employer Payments for current plan members	VI. Employer Payments for future employees	VII. Total Payments [IV.+V.+VI.]
2017	10,000	0	10,000	0	388,896	0	388,896
2018	9,475	825	10,300	0	427,943	0	427,943
2019	8,980	1,629	10,609	0	456,983	0	456,983
2020	8,527	2,400	10,927	0	498,133	0	498,133
2021	8,026	3,229	11,255	0	546,212	0	546,212
2022	7,611	3,982	11,593	0	577,653	0	577,653
2023	7,183	4,758	11,941	0	619,324	0	619,324
2024	6,693	5,606	12,299	0	674,111	0	674,111
2025	6,290	6,378	12,668	0	697,064	0	697,064
2026	5,821	7,227	13,048	0	752,947	0	752,947
2027	5,402	8,037	13,439	0	799,517	0	799,517
2028	5,055	8,787	13,842	0	820,939	3,906	824,845
2029	4,645	9,612	14,257	0	847,796	10,637	858,433
2030	4,342	10,343	14,685	0	883,167	20,596	903,763
2031	4,092	11,034	15,126	0	885,574	34,188	919,762
2032	3,857	11,723	15,580	0	909,258	51,207	960,465
2033	3,631	12,416	16,047	0	953,730	66,096	1,019,826
2034	3,370	13,158	16,528	0	993,708	83,511	1,077,219
2035	3,136	13,888	17,024	0	1,036,353	104,069	1,140,422
2036	2,895	14,640	17,535	0	1,078,096	122,630	1,200,726
2037	2,682	15,379	18,061	0	1,100,315	143,208	1,243,523
2038	2,486	16,117	18,603	0	1,118,987	170,868	1,289,855
2039	2,326	16,835	19,161	0	1,167,027	206,289	1,373,316
2040	2,129	17,607	19,736	0	1,177,703	249,490	1,427,193
2041	1,905	18,423	20,328	0	1,224,939	301,866	1,526,805
2042	1,675	19,263	20,938	0	1,261,237	362,122	1,623,359
2043	1,453	20,113	21,566	0	1,280,397	416,831	1,697,228
2044	1,312	20,901	22,213	0	1,316,437	478,125	1,794,562
2045	1,181	21,698	22,879	0	1,324,134	546,315	1,870,449
2046	1,038	22,527	23,565	0	1,327,454	612,655	1,940,109
2047	915	23,357	24,272	0	1,346,155	684,454	2,030,609
2048	812	24,188	25,000	0	1,360,159	767,482	2,127,641

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

20. PLAN PROJECTION DISCLOSURES (CONTINUED)

Projection of OPEB Plan's Fiduciary Net Position as of June 30, 2016								
Fiscal Year	I. Projected Beginning Fiduciary Net Position	II. Portion of Employer Contributions for Current Plan Members	III. Total Projected Benefit Payments	IV. Projected Administrative Expense	V. Total Contributions to Trust	VI. Contributions to Trust for Current Plan Members	VII. Projected Investment Earnings	VIII. Projected Ending Fiduciary Net Position [I. + II. - III. - IV. + VI. + VII.]
2017	179,434	388,896	388,896	0	35,000	35,000	4,934	219,368
2018	219,368	427,943	427,943	0	35,000	32,198	6,033	257,599
2019	257,599	456,983	456,983	0	35,000	29,624	7,084	294,307
2020	294,307	498,133	498,133	0	35,000	27,313	8,093	329,713
2021	329,713	546,212	546,212	0	35,000	24,960	9,067	363,740
2022	363,740	577,653	577,653	0	35,000	22,979	10,003	396,722
2023	396,722	619,324	619,324	0	35,000	21,053	10,910	428,685
2024	428,685	674,111	674,111	0	35,000	19,046	11,789	459,520
2025	459,520	697,064	697,064	0	35,000	17,378	12,637	489,535
2026	489,535	752,947	752,947	0	35,000	15,614	13,462	518,611
2027	518,611	799,517	799,517	0	35,000	14,068	14,262	546,941
2028	546,941	820,939	824,845	0	35,000	12,781	15,041	570,857
2029	570,857	847,796	858,433	0	35,000	11,404	15,699	587,323
2030	587,323	883,167	903,763	0	35,000	10,349	16,151	593,227
2031	593,227	885,574	919,762	0	35,000	9,468	16,314	584,821
2032	584,821	909,258	960,465	0	35,000	8,665	16,083	558,362
2033	558,362	953,730	1,019,826	0	35,000	7,919	15,355	515,540
2034	515,540	993,708	1,077,219	0	35,000	7,137	14,177	453,343
2035	453,343	1,036,353	1,140,422	0	35,000	6,448	12,467	368,189
2036	368,189	1,078,096	1,200,726	0	35,000	5,778	10,125	261,462
2037	261,462	1,100,315	1,243,523	0	35,000	5,198	7,190	130,642
2038	130,642	1,118,987	1,289,855	0	35,000	4,676	3,593	8,269
2039	8,269	1,167,027	1,373,316	0	35,000	4,249	227	4,476
2040	4,476	1,177,703	1,427,193	0	35,000	3,775	123	3,898
2041	3,898	1,224,939	1,526,805	0	35,000	3,279	107	3,386
2042	3,386	1,261,237	1,623,359	0	35,000	2,800	93	2,893
2043	2,893	1,280,397	1,697,228	0	35,000	2,358	80	2,438
2044	2,438	1,316,437	1,794,562	0	35,000	2,067	67	2,134
2045	2,134	1,324,134	1,870,449	0	35,000	1,806	59	1,865
2046	1,865	1,327,454	1,940,109	0	35,000	1,542	51	1,593
2047	1,593	1,346,155	2,030,609	0	35,000	1,319	44	1,363
2048	1,363	1,360,159	2,127,641	0	35,000	1,137	37	1,174

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

20. PLAN PROJECTION DISCLOSURES (CONTINUED)

Actuarial Present Values of Projected Benefit Payments as of June 30, 2016

Fiscal Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments	Present Value of Unfunded Benefit Payments	Present Value of Benefit Payments using Single Discount Rate
2017	179,434	388,896	179,434	209,462	179,434	209,462	388,896
2018	219,368	427,943	219,368	208,575	213,497	203,069	416,632
2019	257,599	456,983	257,599	199,384	243,995	188,995	433,144
2020	294,307	498,133	294,307	203,826	271,303	188,105	459,668
2021	329,713	546,212	329,713	216,499	295,807	194,526	490,711
2022	363,740	577,653	363,740	213,913	317,601	187,128	505,240
2023	396,722	619,324	396,722	222,602	337,128	189,588	527,370
2024	428,685	674,111	428,685	245,426	354,540	203,509	558,850
2025	459,520	697,064	459,520	237,544	369,871	191,773	562,603
2026	489,535	752,947	489,535	263,412	383,484	207,043	591,644
2027	518,611	799,517	518,611	280,906	395,388	214,964	611,632
2028	546,941	820,939	546,941	273,998	405,826	204,142	611,419
2029	570,857	847,796	570,857	276,939	412,235	200,886	614,732
2030	587,323	883,167	587,323	295,844	412,775	208,934	623,453
2031	593,227	885,574	593,227	292,347	405,766	201,013	608,628
2032	584,821	909,258	584,821	324,437	389,310	217,189	608,388
2033	558,362	953,730	558,362	395,368	361,748	257,685	621,276
2034	515,540	993,708	515,540	478,168	325,066	303,423	630,209
2035	453,343	1,036,353	453,343	583,010	278,198	360,184	639,882
2036	368,189	1,078,096	368,189	709,907	219,895	427,002	648,060
2037	261,462	1,100,315	261,462	838,853	151,975	491,242	643,934
2038	130,642	1,118,987	130,642	988,345	73,903	563,506	637,552
2039	8,269	1,167,027	8,269	1,158,758	4,553	643,225	647,348
2040	4,476	1,177,703	4,476	1,173,227	2,398	634,063	636,002
2041	3,898	1,224,939	3,898	1,221,041	2,033	642,483	644,026
2042	3,386	1,261,237	3,386	1,257,851	1,718	644,378	645,583
2043	2,893	1,280,397	2,893	1,277,504	1,429	637,169	638,067
2044	2,438	1,316,437	2,438	1,313,999	1,172	638,069	638,687
2045	2,134	1,324,134	2,134	1,322,000	998	625,006	625,440
2046	1,865	1,327,454	1,865	1,325,589	849	610,158	610,435
2047	1,593	1,346,155	1,593	1,344,562	706	602,552	602,673
2048	1,363	1,360,159	1,363	1,358,796	588	592,855	592,847

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

21. CHANGES TO NET OPEB EXPENSE

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of the effects of differences between expected & actual experience								
Year	Differences between actual & expected experience	Recognition Period (years)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017	2,740,707	5.17	<u>530,117</u>	<u>530,117</u>	<u>530,117</u>	<u>530,117</u>	<u>530,117</u>	<u>90,122</u>
Net increase (decrease) in OPEB expense			530,117	530,117	530,117	530,117	530,117	90,122

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

21. CHANGES TO NET OPEB EXPENSE (CONTINUED)

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of the effects of Changes in Assumptions								
Year	Differenced from changes in Actuarial Assumptions	Recognition Period (years)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017	0	5.17	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in OPEB expense			0	0	0	0	0	0

EXHIBIT A

Financial Statement Disclosure

(As of June 30, 2016)

(continued)

21. CHANGES TO NET OPEB EXPENSE (CONTINUED)

Deferred (Inflows)/Outflows in OPEB Expense arising from the recognition of differences between Projected & Actual Earnings on OPEB Plan Investments								
Year	Differences between actual & expected experience	Recognition Period (years)	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017	0	5.00	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in OPEB expense			0	0	0	0	0	0

EXHIBIT AFinancial Statement Disclosure

(As of June 30, 2016)

(continued)

22. Impact of Patient Protection and Affordable Care Act ("PPACA") Excise Tax

Under the Patient Protection and Affordable Care Act ("PPACA"), an excise tax will be imposed for tax years beginning after December 31, 2019 (formerly December 31, 2017, but amended by Consolidated Appropriations Act) for high cost employer sponsored health coverage. The law specifies a 40% excise tax, to be paid by the provider of such coverage, of the excess value beyond a basic dollar amount plus an additional "kicker" for qualified retirees or those engaged in a high risk profession. The threshold amounts for 2020 are estimated at \$11,850 for single coverage and \$30,950 for family coverage with a "kicker" amount of \$1,650 for single coverage and \$3,450 for family coverage, but the actual thresholds have not yet been released. The estimated 2020 thresholds are based on the threshold amounts for 2018 (original legislation) of \$10,200 for single coverage and \$27,500 for family coverage, which have been increased by general CPI.

For purposes of the fiscal year ending June 30, 2017, the TOL for the excise tax is \$258,153 and the increase in OPEB Expense is \$41,754. Given your premiums through the 2017 fiscal year and the excise tax threshold, your average single premiums are \$4,098 below the excise tax threshold and your average family premiums are \$5,987 below the excise tax threshold. As more regulatory guidance becomes available, the calculation of the excise tax liability will evolve.

EXHIBIT BRequired Supplementary Information
(As of June 30, 2016)Notes to Required Supplementary Information:

Valuation Date:	Actuarially Determined Contribution was calculated as of June 30, 2016.
Actuarial Cost Method:	Individual Entry Age Normal
Asset-Valuation Method:	Market Value of Assets as of the Measurement Date, June 30, 2016.
<u>Actuarial Assumptions:</u>	
Investment Rate of Return:	2.75%, net of OPEB plan investment expense, including inflation.
Single Equivalent Discount Rate:	3.00%, net of OPEB plan investment expense, including inflation.
Inflation:	2.75% as of June 30, 2016 and for future periods
Salary Increases:	3.00% annually as of June 30, 2016 and for future periods
Cost of Living Adjustment:	Not Applicable
Pre-Retirement Mortality:	RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females.
Post-Retirement Mortality:	RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females.
Disabled Mortality:	RP-2000 Healthy Annuitant Table projected generationally with Scale BB and a base year 2012 for males and females.

EXHIBIT BRequired Supplementary Information

(As of June 30, 2016)

(continued)

Notes to Required Supplementary Information (Continued):Plan Membership

Plan Membership: At June 30, 2016, OPEB plan membership consisted of the following

Inactive employees or beneficiaries currently receiving benefits:	107
Active Employees:	<u>123</u>
Total:	230

Changes in Assumptions:

Effective June 30, 2016

- Discount rate is 3.00% (previously 4.00%)
- The assumed pre-retirement mortality table is the RP-2000 Employees Mortality Table projected generationally with scale BB and a base year 2009 for males and females.- previously RP-2000 Mortality Table projected to 2017
- The assumed post-retirement mortality table is the RP-2000 Healthy Annuitant Mortality Table projected generationally with scale BB and a base year 2009 for males and females.- previously RP-2000 Mortality Table projected to 2017
- The actuarial cost method is Individual Entry Age Normal- previously Individual Entry Age Normal

EXHIBIT B

Required Supplementary Information (As of June 30, 2016) (continued)

Notes to Required Supplementary Information (Continued):

Deferred Outflows of Resources and Deferred Inflows of Resources Arising between Expected & Actual Experience					
				<u>Balances at June 30, 2017</u>	
<u>Year</u>	<u>Experience Losses</u>	<u>Experience Gains</u>	<u>Amounts recognized in OPEB Expense through June 30, 2017</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
2008				0	0
2009				0	0
2010				0	0
2011				0	0
2012				0	0
2013				0	0
2014				0	0
2015				0	0
2016				0	0
2017	2,740,707	0	530,117	<u>2,210,590</u>	<u>0</u>
Total				2,210,590	0

EXHIBIT B

Required Supplementary Information (As of June 30, 2016) (continued)

Notes to Required Supplementary Information (Continued):

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions					
Year	Increase in the Total OPEB Liability	Decrease in the Total OPEB Liability	Amounts recognized in OPEB Expense through June 30, 2017	Balances at June 30, 2017	
				Deferred Outflows of Resources	Deferred Inflows of Resources
2008				0	0
2009				0	0
2010				0	0
2011				0	0
2012				0	0
2013				0	0
2014				0	0
2015				0	0
2016				0	0
2017	0	0	0	0	0
Total				0	0

EXHIBIT B

Required Supplementary Information

(As of June 30, 2016)

(continued)

Notes to Required Supplementary Information (Continued):

Deferred Outflows of Resources and Deferred Inflows of Resources between Projected & Actual Earnings on OPEB Plan Investments					
Year	Increase in the Total OPEB Liability	Decrease in the Total OPEB Liability	Amounts recognized in OPEB Expense through June 30, 2017	Balances at June 30, 2017	
				Deferred Outflows of Resources	Deferred Inflows of Resources
2008				0	0
2009				0	0
2010				0	0
2011				0	0
2012				0	0
2013				0	0
2014				0	0
2015				0	0
2016				0	0
2017	0	0	0	0	0
Total				0	0

EXHIBIT B

Required Supplementary Information (As of June 30, 2016) (continued)

Notes to Required Supplementary Information (Continued):

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB as of June 30, 2017		
	Deferred Outflows of Resources	Deferred Inflows of Resources
I. Differences between actual & expected experience	2,210,590	0
II. Changes of assumptions	0	0
III. Net difference between projected & actual earnings on OPEB plan investments	<u>0</u>	<u>0</u>
IV. Total [I.+II.+III.]	2,210,590	0
Year ended June 30:		
2018	530,117	
2019	530,117	
2020	530,117	
2021	530,117	
2022	90,122	
Thereafter	0	

EXHIBIT BRequired Supplementary Information

(As of June 30, 2016)

(continued)

Notes to Required Supplementary Information (Continued):Contributions:

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town expects to contribute \$70,000 beyond the pay-as-you-go cost for the 2017 fiscal year. Total Town premiums plus implicit costs for the retiree medical program are \$388,896 for the 2017 fiscal year.

EXHIBIT C

Reconciliation of Plan Participation (As of June 30, 2016)

ACTIVE EMPLOYEES

	<u>June 30, 2016</u>	<u>June 30, 2014</u>
A. Average Age at Hire	35.45	36.90
B. Average Service	<u>12.79</u>	<u>12.61</u>
C. Average Current Age	48.24	49.51

RETIRED EMPLOYEES & DEPENDENTS

	<u>June 30, 2016</u>	
I. Retirees		
A. Under Age 65	7	
B. Age 65 & Over	<u>59</u>	
C. Total Retirees	66	
II. Dependents of Retirees		
A. Under Age 65	5	
B. Age 65 & Over	<u>36</u>	
C. Total Retirees	41	
III. Retirees & Dependents		
A. Under Age 65	12	
B. Age 65 & Over	<u>95</u>	
C. Total Retirees	107	

EXHIBIT D

Projected Cash Flows (Open Group) – Pay as you go funding Approach

Total Medical, Dental & Life Insurance - Pay as you go funding - 3.00% discount rate

Valuation Date	I. Total OPEB Liability as of Valuation Date	II. Fiduciary Net Position as of Valuation Date	III. Net OPEB Liability (Asset) [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Excess Employer Payments (beyond claims)	VIII. Total Employer Payments [VI. + VII.]
June 30, 2016	19,174,741	179,434	18,995,307	0.94%	693,532	388,896	35,000	423,896
June 30, 2017	20,090,066	219,368	19,870,698	1.09%	747,996	427,943	35,000	462,943
June 30, 2018	20,995,319	260,401	20,734,918	1.24%	789,546	456,983	35,000	491,983
June 30, 2019	21,967,718	302,562	21,665,156	1.38%	834,730	498,133	35,000	533,133
June 30, 2020	22,973,446	345,882	22,627,564	1.51%	881,814	546,212	35,000	581,212
June 30, 2021	24,008,318	390,394	23,617,924	1.63%	939,490	577,653	35,000	612,653
June 30, 2022	25,101,261	436,130	24,665,131	1.74%	995,886	619,324	35,000	654,324
June 30, 2023	26,242,159	483,124	25,759,035	1.84%	1,046,890	674,111	35,000	709,111
June 30, 2024	27,413,385	531,410	26,881,975	1.94%	1,117,483	697,064	35,000	732,064
June 30, 2025	28,668,820	581,024	28,087,796	2.03%	1,176,109	752,947	35,000	787,947
June 30, 2026	29,964,740	632,002	29,332,738	2.11%	1,247,559	799,517	35,000	834,517
June 30, 2027	31,325,165	684,382	30,640,783	2.18%	1,317,604	824,845	35,000	859,845
June 30, 2028	32,772,462	738,203	32,034,259	2.25%	1,385,517	858,433	35,000	893,433
June 30, 2029	34,292,376	793,504	33,498,872	2.31%	1,464,869	903,763	35,000	938,763
June 30, 2030	35,899,088	850,325	35,048,763	2.37%	1,542,181	919,762	35,000	954,762
June 30, 2031	37,617,152	908,709	36,708,443	2.42%	1,621,013	960,465	35,000	995,465
June 30, 2032	39,403,497	968,698	38,434,799	2.46%	1,702,337	1,019,826	35,000	1,054,826
June 30, 2033	41,257,622	1,030,337	40,227,285	2.50%	1,786,911	1,077,219	35,000	1,112,219
June 30, 2034	43,226,331	1,093,671	42,132,660	2.53%	1,882,156	1,140,422	35,000	1,175,422
June 30, 2035	45,250,837	1,158,747	44,092,090	2.56%	1,975,398	1,200,726	35,000	1,235,726
June 30, 2036	47,406,275	1,225,613	46,180,662	2.59%	2,076,717	1,243,523	35,000	1,278,523
June 30, 2037	49,686,654	1,294,317	48,392,337	2.60%	2,185,051	1,289,855	35,000	1,324,855
June 30, 2038	52,099,307	1,364,911	50,734,396	2.62%	2,294,677	1,373,316	35,000	1,408,316
June 30, 2039	54,611,289	1,437,446	53,173,843	2.63%	2,408,977	1,427,193	35,000	1,462,193
June 30, 2040	57,260,865	1,511,976	55,748,889	2.64%	2,534,747	1,526,805	35,000	1,561,805
June 30, 2041	59,975,991	1,588,555	58,387,436	2.65%	2,670,042	1,623,359	35,000	1,658,359
June 30, 2042	62,853,356	1,667,240	61,186,116	2.65%	2,815,855	1,697,228	35,000	1,732,228
June 30, 2043	65,873,513	1,748,089	64,125,424	2.65%	2,972,446	1,794,562	35,000	1,829,562
June 30, 2044	69,062,940	1,831,161	67,231,779	2.65%	3,127,213	1,870,449	35,000	1,905,449
June 30, 2045	72,429,295	1,916,518	70,512,777	2.65%	3,293,998	1,940,109	35,000	1,975,109
June 30, 2046	75,979,846	2,004,222	73,975,624	2.64%	3,471,329	2,030,609	35,000	2,065,609
June 30, 2047	79,743,185	2,094,338	77,648,847	2.63%	3,654,688	2,127,641	35,000	2,162,641

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - 6.50% discount rate increasing at 0.00% per year
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Valuation Date	I. Total OPEB Liability ("TOL") as of Valuation Date	II. Fiduciary Net Position as of Valuation Date with expected 6.50% return	III. Net OPEB Liability (Asset) ("NOL") II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Annual Funding / (Payments)	VIII. Total Employer Payments [VI. + VII.]
June 30, 2016	10,958,594	179,434	10,779,160	1.64%	251,044	388,896	960,500	1,349,396
June 30, 2017	11,524,090	1,144,868	10,379,222	9.93%	274,257	427,943	960,500	1,388,443
June 30, 2018	12,109,481	2,136,852	9,972,629	17.65%	291,388	456,983	960,500	1,417,483
June 30, 2019	12,720,240	3,156,115	9,564,125	24.81%	309,915	498,133	960,500	1,458,633
June 30, 2020	13,346,603	4,203,408	9,143,195	31.49%	329,117	546,212	960,500	1,506,712
June 30, 2021	13,982,925	5,279,502	8,703,423	37.76%	352,565	577,653	960,500	1,538,153
June 30, 2022	14,652,097	6,385,188	8,266,909	43.58%	375,289	619,324	960,500	1,579,824
June 30, 2023	15,344,587	7,521,281	7,823,306	49.02%	395,394	674,111	960,500	1,634,611
June 30, 2024	16,045,153	8,688,616	7,356,537	54.15%	424,129	697,064	960,500	1,657,564
June 30, 2025	16,797,411	9,888,053	6,909,358	58.87%	447,411	752,947	960,500	1,713,447
June 30, 2026	17,563,848	11,120,474	6,443,374	63.31%	476,123	799,517	960,500	1,760,017
June 30, 2027	18,361,084	12,386,787	5,974,297	67.46%	504,192	824,845	960,500	1,785,345
June 30, 2028	19,213,058	13,687,924	5,525,134	71.24%	530,741	858,433	960,500	1,818,933
June 30, 2029	20,110,533	15,024,842	5,085,691	74.71%	562,297	903,763	960,500	1,864,263
June 30, 2030	21,054,058	16,398,525	4,655,533	77.89%	592,739	919,762	960,500	1,880,262
June 30, 2031	22,074,293	17,809,984	4,264,309	80.68%	623,437	960,465	960,500	1,920,965
June 30, 2032	23,140,259	19,260,259	3,880,000	83.23%	654,875	1,019,826	960,500	1,980,326
June 30, 2033	24,240,941	20,750,416	3,490,525	85.60%	687,164	1,077,219	960,500	2,037,719
June 30, 2034	25,401,195	22,281,552	3,119,643	87.72%	723,666	1,140,422	960,500	2,100,922
June 30, 2035	26,590,945	23,854,795	2,736,150	89.71%	759,064	1,200,726	960,500	2,161,226
June 30, 2036	27,848,986	25,471,302	2,377,684	91.46%	797,544	1,243,523	960,500	2,204,023
June 30, 2037	29,184,202	27,132,263	2,051,939	92.97%	838,672	1,289,855	960,500	2,250,355
June 30, 2038	30,600,667	28,838,900	1,761,767	94.24%	880,046	1,373,316	960,500	2,333,816
June 30, 2039	32,064,378	30,592,470	1,471,908	95.41%	923,175	1,427,193	960,500	2,387,693
June 30, 2040	33,611,784	32,394,263	1,217,521	96.38%	970,801	1,526,805	960,500	2,487,305
June 30, 2041	35,186,303	34,245,605	940,698	97.33%	1,022,330	1,623,359	960,500	2,583,859
June 30, 2042	36,833,318	36,147,859	685,459	98.14%	1,077,861	1,697,228	940,698	2,637,926
June 30, 2043	38,560,158	38,082,623	477,535	98.76%	1,137,266	1,794,562	685,459	2,480,021
June 30, 2044	40,366,548	39,815,354	551,194	98.63%	1,195,781	1,870,449	477,535	2,347,984
June 30, 2045	42,271,851	41,387,811	884,040	97.91%	1,258,918	1,940,109	477,535	2,417,644
June 30, 2046	44,290,330	43,003,511	1,286,819	97.09%	1,325,857	2,030,609	477,535	2,508,144
June 30, 2047	46,418,639	44,663,643	1,754,996	96.22%	1,394,914	2,127,641	477,535	2,605,176

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - 6.50% discount rate and increasing at 2.75% per year								
Valuation Date	I. Total OPEB Liability ("TOL") as of Valuation Date	II. Fiduciary Net Position as of Valuation Date with expected 6.50% return	III. Net OPEB Liability (Asset) ("NOL") [I. - II.]	IV. Funded Ratio [II. / I.]	V. Service Cost	VI. Employer Share of Premiums / Claims	VII. Annual Funding / (Payments)	VIII. Total Employer Payments [VI. + VII.]
June 30, 2016	10,958,594	179,434	10,779,160	1.64%	251,044	388,896	684,800	1,073,696
June 30, 2017	11,524,090	869,168	10,654,922	7.54%	274,257	427,943	684,800	1,112,743
June 30, 2018	12,109,481	1,577,870	10,531,611	13.03%	291,388	456,983	703,632	1,160,615
June 30, 2019	12,720,240	2,324,893	10,395,347	18.28%	309,915	498,133	722,982	1,221,115
June 30, 2020	13,346,603	3,111,810	10,234,793	23.32%	329,117	546,212	742,864	1,289,076
June 30, 2021	13,982,925	3,940,249	10,042,676	28.18%	352,565	577,653	763,293	1,340,946
June 30, 2022	14,652,097	4,811,899	9,840,198	32.84%	375,289	619,324	784,284	1,403,608
June 30, 2023	15,344,587	5,728,510	9,616,077	37.33%	395,394	674,111	805,852	1,479,963
June 30, 2024	16,045,153	6,691,896	9,353,257	41.71%	424,129	697,064	828,013	1,525,077
June 30, 2025	16,797,411	7,703,936	9,093,475	45.86%	447,411	752,947	850,783	1,603,730
June 30, 2026	17,563,848	8,766,577	8,797,271	49.91%	476,123	799,517	874,180	1,673,697
June 30, 2027	18,361,084	9,881,838	8,479,246	53.82%	504,192	824,845	898,220	1,723,065
June 30, 2028	19,213,058	11,051,809	8,161,249	57.52%	530,741	858,433	922,921	1,781,354
June 30, 2029	20,110,533	12,278,655	7,831,878	61.06%	562,297	903,763	948,301	1,852,064
June 30, 2030	21,054,058	13,564,619	7,489,439	64.43%	592,739	919,762	974,379	1,894,141
June 30, 2031	22,074,293	14,912,025	7,162,268	67.55%	623,437	960,465	1,001,174	1,961,639
June 30, 2032	23,140,259	16,323,280	6,816,979	70.54%	654,875	1,019,826	1,028,706	2,048,532
June 30, 2033	24,240,941	17,800,876	6,440,065	73.43%	687,164	1,077,219	1,056,995	2,134,214
June 30, 2034	25,401,195	19,347,395	6,053,800	76.17%	723,666	1,140,422	1,086,062	2,226,484
June 30, 2035	26,590,945	20,965,510	5,625,435	78.84%	759,064	1,200,726	1,115,929	2,316,655
June 30, 2036	27,848,986	22,657,991	5,190,995	81.36%	797,544	1,243,523	1,146,617	2,390,140
June 30, 2037	29,184,202	24,427,703	4,756,499	83.70%	838,672	1,289,855	1,178,149	2,468,004
June 30, 2038	30,600,667	26,277,614	4,323,053	85.87%	880,046	1,373,316	1,210,548	2,583,864
June 30, 2039	32,064,378	28,210,796	3,853,582	87.98%	923,175	1,427,193	1,243,838	2,671,031
June 30, 2040	33,611,784	30,230,431	3,381,353	89.94%	970,801	1,526,805	1,278,044	2,804,849
June 30, 2041	35,186,303	32,339,812	2,846,491	91.91%	1,022,330	1,623,359	1,313,190	2,936,549
June 30, 2042	36,833,318	34,542,347	2,290,971	93.78%	1,077,861	1,697,228	1,349,303	3,046,531
June 30, 2043	38,560,158	36,841,565	1,718,593	95.54%	1,137,266	1,794,562	1,386,409	3,180,971
June 30, 2044	40,366,548	39,241,117	1,125,431	97.21%	1,195,781	1,870,449	1,424,535	3,294,984
June 30, 2045	42,271,851	41,744,783	527,068	98.75%	1,258,918	1,940,109	1,463,710	3,403,819
June 30, 2046	44,290,330	44,356,474	(66,144)	100.15%	1,325,857	2,030,609	1,503,962	3,534,571
June 30, 2047	46,418,639	47,080,239	(661,600)	101.43%	1,394,914	2,127,641	1,545,321	3,672,962

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

Town of Halifax

GASB 45 Projection of Funding Annual Service Cost and Impact on Unfunded Obligation

Total Medical, Dental & Life Insurance - Funding Annual Service Cost - 3.00% discount rate

Fiscal Year	I. Total OPEB Liability	II. Service Cost	III. Employer Share of Premiums / Claims including "implicit cost"	IV. Funding Service Cost beyond claims	V. Total Funding Costs [III. + IV.]	VI. Present Value at 2.75% of Employer Share of Premiums / Claims including "implicit cost"	VII. Present Value at 2.75% of Funding Service Cost beyond claims	VIII. Present Value at 2.75% of Total Funding Costs + VII.]	IX. Fiduciary Net Position at Beginning of year	X. Net OPEB Liability (Asset) - IX.]	XI. Present Value at 2.75% of Net OPEB Liability (Asset)
2017	19,174,741	693,532	388,896	304,636	693,532	388,896	304,636	693,532	179,434	18,995,307	18,995,307
2018	20,090,066	747,996	427,943	320,053	747,996	416,490	311,487	727,977	489,453	19,600,613	19,076,022
2019	20,995,319	789,546	456,983	332,563	789,546	432,849	315,000	747,849	824,190	20,171,129	19,105,858
2020	21,967,718	834,730	498,133	336,597	834,730	459,198	310,288	769,486	1,181,479	20,786,239	19,161,541
2021	22,973,446	881,814	546,212	335,602	881,814	490,043	301,091	791,134	1,553,520	21,419,926	19,217,224
2022	24,008,318	939,490	577,653	361,837	939,490	504,380	315,939	820,319	1,935,728	22,072,590	19,272,770
2023	25,101,261	995,886	619,324	376,562	995,886	526,292	319,997	846,289	2,355,637	22,745,624	19,328,888
2024	26,242,159	1,046,890	674,111	372,779	1,046,890	557,518	308,304	865,822	2,802,868	23,439,291	19,385,261
2025	27,413,385	1,117,483	697,064	420,419	1,117,483	561,071	338,398	899,469	3,259,733	24,153,652	19,441,428
2026	28,668,820	1,176,109	752,947	423,162	1,176,109	589,831	331,490	921,321	3,777,944	24,890,876	19,498,612
2027	29,964,740	1,247,559	799,517	448,042	1,247,559	609,550	341,586	951,136	4,314,444	25,650,296	19,555,732
2028	31,325,165	1,317,604	824,845	492,759	1,317,604	612,029	365,624	977,653	4,891,919	26,433,246	19,613,286
2029	32,772,462	1,385,517	858,433	527,084	1,385,517	619,904	380,625	1,000,529	5,531,436	27,241,026	19,671,682
2030	34,292,376	1,464,869	903,763	561,106	1,464,869	635,171	394,349	1,029,520	6,224,463	28,067,913	19,726,331
2031	35,899,088	1,542,181	919,762	622,419	1,542,181	629,115	425,733	1,054,848	6,972,303	28,926,785	19,785,842
2032	37,617,152	1,621,013	960,465	660,548	1,621,013	639,373	439,721	1,079,094	7,803,891	29,813,261	19,846,413
2033	39,403,497	1,702,337	1,019,826	682,511	1,702,337	660,719	442,181	1,102,900	8,698,556	30,704,941	19,892,940
2034	41,257,622	1,786,911	1,077,219	709,692	1,786,911	679,224	447,485	1,126,709	9,642,024	31,615,598	19,934,726
2035	43,226,331	1,882,156	1,140,422	741,734	1,882,156	699,830	455,172	1,155,002	10,640,977	32,585,354	19,996,293
2036	45,250,837	1,975,398	1,200,726	774,672	1,975,398	717,116	462,661	1,179,777	11,701,940	33,548,897	20,036,574
2037	47,406,275	2,076,717	1,243,523	833,194	2,076,717	722,798	484,294	1,207,092	12,827,670	34,578,605	20,098,834
2038	49,686,654	2,185,051	1,289,855	895,196	2,185,051	729,663	506,407	1,236,070	14,045,694	35,640,960	20,161,877
2039	52,099,307	2,294,677	1,373,316	921,361	2,294,677	756,084	507,259	1,263,343	15,362,261	36,737,046	20,225,719
2040	54,611,289	2,408,977	1,427,193	981,784	2,408,977	764,717	526,058	1,290,775	16,744,490	37,866,799	20,289,740
2041	57,260,865	2,534,747	1,526,805	1,007,942	2,534,747	796,195	525,620	1,321,815	18,228,609	39,032,256	20,354,466
2042	59,975,991	2,670,042	1,623,359	1,046,683	2,670,042	823,889	531,214	1,355,103	19,783,409	40,192,582	20,398,590
2043	62,853,356	2,815,855	1,697,228	1,118,627	2,815,855	838,325	552,532	1,390,857	21,423,594	41,429,762	20,463,732
2044	65,873,513	2,972,446	1,794,562	1,177,884	2,972,446	862,679	566,230	1,428,909	23,184,929	42,688,584	20,521,180
2045	69,062,940	3,127,213	1,870,449	1,256,764	3,127,213	875,094	587,980	1,463,074	25,058,361	44,004,579	20,587,642
2046	72,429,295	3,293,998	1,940,109	1,353,889	3,293,998	883,391	616,467	1,499,858	27,066,876	45,362,419	20,654,901
2047	75,979,846	3,471,329	2,030,609	1,440,720	3,471,329	899,853	638,447	1,538,300	29,232,771	46,747,075	20,715,696

EXHIBIT E

Projected Cash Flows (Open Group) – Funded Approach

Total Medical & Life Insurance - Pay as you go funding					
Fiscal Year	Number of Retirees, Spouses & Surviving Spouses	Total OPEB Liability	Present Value at 2.75% of Total OPEB Liability	Employer Share of Premiums / Claims including "implicit cost"	Present Value at 2.75% of Employer Share of Premiums / Claims including "implicit cost"
2017	107	19,174,741	19,174,741	388,896	388,896
2018	111	20,090,066	19,552,376	427,943	416,490
2019	113	20,995,319	19,886,521	456,983	432,849
2020	115	21,967,718	20,250,673	498,133	459,198
2021	117	22,973,446	20,610,989	546,212	490,043
2022	119	24,008,318	20,962,959	577,653	504,380
2023	121	25,101,261	21,330,673	619,324	526,292
2024	123	26,242,159	21,703,349	674,111	557,518
2025	125	27,413,385	22,065,208	697,064	561,071
2026	127	28,668,820	22,458,117	752,947	589,831
2027	128	29,964,740	22,845,055	799,517	609,550
2028	129	31,325,165	23,243,056	824,845	612,029
2029	130	32,772,462	23,666,122	858,433	619,904
2030	130	34,292,376	24,100,929	903,763	635,171
2031	130	35,899,088	24,554,878	919,762	629,115
2032	130	37,617,152	25,041,391	960,465	639,373
2033	129	39,403,497	25,528,511	1,019,826	660,719
2034	129	41,257,622	26,014,356	1,077,219	679,224
2035	129	43,226,331	26,526,224	1,140,422	699,830
2036	128	45,250,837	27,025,382	1,200,726	717,116
2037	128	47,406,275	27,554,924	1,243,523	722,798
2038	128	49,686,654	28,107,441	1,289,855	729,663
2039	127	52,099,307	28,683,469	1,373,316	756,084
2040	126	54,611,289	29,261,752	1,427,193	764,717
2041	126	57,260,865	29,860,287	1,526,805	796,195
2042	126	59,975,991	30,439,090	1,623,359	823,889
2043	127	62,853,356	31,045,659	1,697,228	838,325
2044	127	65,873,513	31,666,597	1,794,562	862,679
2045	126	69,062,940	32,311,254	1,870,449	875,094
2046	126	72,429,295	32,979,280	1,940,109	883,391
2047	126	75,979,846	33,670,029	2,030,609	899,853
2048	126	79,743,185	34,391,952	2,127,641	917,617
2049	126	83,703,204	35,133,669	2,182,670	916,156
2050	126	87,935,263	35,922,178	2,312,365	944,617
2051	126	92,419,142	36,743,430	2,426,591	964,749
2052	126	97,105,678	37,573,405	2,532,802	980,025
2053	126	102,064,154	38,435,040	2,634,221	991,988
2054	126	107,319,725	39,332,524	2,752,786	1,008,892
2055	126	112,872,137	40,260,317	2,843,033	1,014,080
2056	125	118,923,104	41,283,342	2,966,053	1,029,645

EXHIBIT F**GLOSSARY**

Accrual Accounting - A system of accounting in which revenues are recorded when earned and outlays are recorded when goods are received or services performed, even though the actual receipt of revenues and payment for goods or services may occur, in whole or in part, at a different time.

Actuarially Determined Contribution - Amount of funding required annually to fully fund plan benefits. Determined by the actuary using a consistent methodology.

Cash Basis Accounting - A system of accounting in which revenues are recorded when received and outlays are recorded when payment is made.

Deferred Inflows/Outflows of Resources - Amounts arising from experience gains and losses that have not been recognized into the OPEB Expense, but will be recognized in the future.

Discount Rate - The interest rate used to calculate present value of a series of future cash flows. Under GASB 45, the rate should be "long term expected yield on the investments that are expected to be used to pay benefits as they come due. These would be plan investments for a funded plan, the employer's investments for a pay as you go plan [e.g. short term county investment pool], or a weighted average of expected plan and employer investments for a plan that is partially funded".

FASB - Financial Accounting Standards Board. "Since 1973, the Financial Accounting Standards Board (FASB) has been the designated organization in the private sector for establishing standards of financial accounting and reporting".

EXHIBIT F**GLOSSARY***(continued)*

Fiduciary Net Position – The value of cash, investments, other assets and property belonging to an OPEB trust, pension fund or similar entity, as used by the actuary to perform an actuarial valuation.

GASB - Government Accounting Standards Board. “The Governmental Accounting Standards Board (GASB) was organized in 1984 by the Financial Accounting Foundation (FAF) to establish standards of financial accounting and reporting for state and local governmental entities. Its standards guide the preparation of external financial reports of those entities.”

GFOA – Government Finance Officers Association. “GFOA is the professional association of state/provincial and local finance officers in the United States and Canada, and has served the public finance profession since 1906. Approximately 16,000 GFOA members are dedicated to the sound management of government financial resources.”

Implicit Subsidy – “The difference between a premium rate charged to retirees for a particular benefit and the estimated rate that would have been applicable to those retirees if that benefit was acquired for them as a separate group.”

Irrevocable Contribution – “Irrevocably transferred assets to a qualifying trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator. The preceding criteria preclude counting as [irrevocable] contributions (a) designations of net assets of a governmental or proprietary fund to be used for OPEB or (b) internal transfers of assets to a separate governmental or proprietary fund for the same purpose. Rather, such actions should be regarded as earmarking of employer assets.”

Level Dollar Amortization – Funding a shortfall in OPEB assets with equal dollar payments over a designated number of years (no more than 30 years). The present value of the level payments equals the present value of unfunded liabilities, the NOL.

EXHIBIT F**GLOSSARY***(continued)*

Level Percent of Payroll Amortization – Funding a shortfall in OPEB assets as a level percent of payroll over a designated number of years (no more than 30 years). The present value of the payments equals the present value of unfunded liabilities, the NOL. Level percent of payroll typically has lower payments in the early years than level dollar amortization. When using level payroll amortization, employee count is assumed to be constant, and the payroll differences arise from overall wage trends.

Net OPEB Liability (NOL) – Total OPEB Liability minus the Fiduciary Net Position.

OPEB – Other Post Employment Benefits

OPEB Trust – An entity other than a pension or retirement system which manages OPEB assets. In many respects it is similar to a pension fund for OPEB. For reasons detailed in GASB 45, contributions to an OPEB trust should be irrevocable in order to obtain the most favorable accounting treatment.

Pay-as-you-go funding – Paying benefits (such as pensions or OPEB) on a cash basis, with no money set aside for future liabilities which are already incurred.

Pension Obligation Bond (POB) – Generally yielding taxable interest, POBs are issued to help fund a previously unfunded or underfunded pension liability.

Service Cost (Formerly Normal Cost)– The actuarially determined present value contribution needed to fund benefits which are earned for employee service rendered during the current year. Service cost depends on many factors, including the interest rate used to discount future cashflows, and expected inflation.

Total OPEB Liability (TOL) - That portion, as determined by the Individual Entry Age Normal Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Service Costs.