

Town of Wellesley

**Actuarial Valuation and Review of Other
Postemployment Benefits (OPEB)
as of December 31, 2018**

This report has been prepared at the request of the Town of Wellesley to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Town of Wellesley and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.



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February 22, 2019

Mr. Marc V. Waldman
Treasurer/Collector
525 Washington Street
Town Hall
Wellesley, MA 02482

Dear Mr. Waldman:

We are pleased to submit this report on our actuarial valuation of postemployment welfare benefits as of December 31, 2018. The purpose of this report is to calculate an Actuarially Determined Contribution for the Town of Wellesley Other Postemployment Benefit (OPEB) plan for the fiscal year ending June 30, 2019. It summarizes the actuarial data used in the valuation and analyzes the experience and changes in assumptions since the prior valuation. The GASB Statements Number 74 and 75 disclosure information for the fiscal year ending June 30, 2019 will be provided in a separate report.

This report is based on information received from the Town of Wellesley and vendors employed by the Town of Wellesley. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

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

The actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. The actuarial calculations were directed under our supervision. We are members of the American Academy of Actuaries and collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Town of Wellesley are reasonably related to the experience of and the expectations for the Plan.

We look forward to discussing this with you at your convenience.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: 
Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary


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Vice President and Health Actuary

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Section 1: Executive Summary

Important Information about Actuarial Valuations

An actuarial valuation is an estimate of future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

Plan of Benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinate with Medicare. If so, changes in the Medicare law or administration may change the plan’s costs without any change in the terms of the plan itself. It is important for the Town of Wellesley to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant Data	An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, provided by the Town of Wellesley. Some plans include assets, such as private equity holdings, real estate, or hedge funds, that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. Plan sponsors often use an “actuarial value of assets” that differs from market value to reflect gradually year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial Assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan’s benefits for each of those events. In a funding valuation, the forecasted benefits are then discounted to a present value using the expected rate of return that will be achieved on the plan’s assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Town of Wellesley. It includes information for compliance with accounting standards. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- If the Town of Wellesley is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Sections of this report may include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience and health care cost trend, and investment losses, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Town of Wellesley should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Town of Wellesley upon delivery and review. The Town of Wellesley should notify Segal immediately of any questions or concerns about the final content.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Purpose

This report presents the results of our actuarial valuation of the Town of Wellesley postemployment welfare benefit plan as of December 31, 2018. The purpose of this report is to calculate a recommended Actuarially Determined Contribution for the OPEB plan for the fiscal year ending June 30, 2019.

Highlights of the Valuation

- The unfunded actuarial accrued liability (UAAL) as of June 30, 2018 is \$51,445,000 based on an actuarial accrued liability (AAL) of \$114,069,000 and a market value of assets of \$62,624,000. Going forward, net unfunded plan obligations will be expected to change due to normal plan operations, which consist of continuing accruals for active members, plus interest on the unfunded actuarial accrued liability, less employer contributions. Future valuations will analyze the difference between actual and expected unfunded actuarial accrued liabilities.
- As of June 30, 2018 the ratio of assets to the AAL (the funded ratio) is 54.9%. This funded percentage is not necessarily appropriate for assessing the sufficiency of OPEB assets to cover the estimated cost of settling the benefit obligations or the need for or the amount of future contributions.
- The discount rate used to determine the liabilities and the Actuarially Determined Contribution is the expected return on assets. Based on the investment allocation of the OPEB Trust the Town has selected an expected return on assets of 6.625% for this valuation. The prior valuation report showed liabilities using a discount rate equal to an expected return on assets of 6.75%.
- The UAAL of \$51,445,000 as of June 30, 2018 represents a decrease of \$24,482,000 from \$75,927,900 as shown in the June 30, 2016 valuation. The unfunded liability had been expected to decrease by \$178,000 due to normal plan operations. The difference between the actual and expected decrease was the net effect of the following:
 - There was an actuarial experience gain of \$12,401,000 for the two-year period ending June 30, 2018, due to an investment gain, employer contributions greater than expected, and demographic experience.
 - The valuation assumption and plan changes decreased obligations by \$11,903,000. This was the net result of 1) a decrease in obligations due to changing the funding method to be consistent with the method used for accounting purposes and 2) a decrease in obligations due to updating the per capita costs and the future trends on such costs and retiree contributions, partially offset by 3) an increase in obligations due to changing the enrollment assumption for future retirees, 4) an increase in obligations due to updating the mortality assumptions, 5) an increase in obligations due to decreasing the discount rate from 6.75% to 6.625% and 6) an increase in obligations due to updating the excise tax calculation. The complete set of assumptions is shown in Exhibit II.

- This valuation reflects the terms of the memorandum of agreement (MOA) effective July 1, 2018, concerning health insurance for Town employees and retirees. This includes changes to the retiree contributions and the introduction of high deductible plans with a Health Savings Account (HSA) and Health Reimbursement Account (HRA) for non-Medicare retirees.
- The Actuarially Determined Contribution (ADC) for fiscal year 2019 is \$7,657,000. The ADC is calculated using a 19-year amortization for the Town and Water and Sewer Department and a 4-year amortization for the Municipal Light Plant of the UAAL, with payments increasing at 3.00% per year. As shown on page 15, the liabilities for the Municipal Light Plant are overfunded. The ADC reflects a 4-year amortization of the overfunding of the Municipal Light Plant. The Municipal Light Plant may want to recognize the overfunding over a longer period of time.
- A summary of the valuation results appears on page 11 with the summary of results by department on page 12. Page 13 includes a projection of the ADC of the Town reflecting the current funding policy of the Town to contribute \$3,438,371 per year. The ADC in this projection is based on a 19-year closed amortization period. As shown in the projection, the current funding policy will fund the obligations of the Town in 14 years. Page 14 includes a projection of the ADC of the Water and Sewer Department reflecting the current funding policy of the Water and Sewer Department to contribute \$55,000 per year. The ADC in this projection is also based on a 19-year closed amortization period. As shown in the projection, the current funding policy will fund the obligations of the Water and Sewer Department in 16 years. All projections assume that there will be no assumption or plan changes and that experience will develop as assumed.
- For illustrative purposes we have shown a projection of the ADC for the Municipal Light Plant on page 15. For this projection the ADC was set to the normal cost for all years. In this projection there are no employer contributions to the OPEB Trust for 5 years until the overfunding is eliminated. We can provide alternative contribution schedules if requested.

OPEB Trust Information

As of June 30, 2018, the Town of Wellesley has \$62,623,693 in assets. The table below shows the increase in assets from June 30, 2016 to June 30, 2018.

Reconciliation of OPEB Balance from June 30, 2016 through June 30, 2018	Total
Balance as of June 30, 2016	\$44,229,962
• Fiscal year 2017 OPEB contributions	3,464,969
• Net investment income	<u>5,975,038</u>
Balance as of June 30, 2017	\$53,669,969
• Fiscal year 2018 OPEB contributions	3,646,371
• Net investment income	<u>5,307,353</u>
Balance as of June 30, 2018	\$62,623,693

Other Considerations

This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 other than the excise tax on high cost health plans beginning in 2022 (reflected in this valuation) and those previously adopted as of the valuation date.

Employer decisions regarding plan design, cost sharing between the Employer and its retirees, actuarial cost method, amortization techniques, and integration with Medicare are just some of the decisions that affect the magnitude of OPEB obligations. We are available to assist you with any investigation of such options you may wish to undertake.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits does not incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short-term volatility in accrued liabilities and the actuarial value of assets, if any.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

Section 2: Valuation Results

Summary of Valuation Results

	6.750% Discount Rate June 30, 2016	6.625% Discount Rate December 31, 2018
Actuarial Accrued Liability by Participant Category		
1. Current retirees, beneficiaries and dependents	\$51,105,451	\$54,735,543
2. Current active employees	<u>69,051,525</u>	<u>62,714,317</u>
3. Total as of June 30, 2016 and December 31, 2018: (1) + (2)	\$120,156,976	\$117,449,860
4. Total as of June 30, 2016 and June 30, 2018	120,156,976	114,068,593
5. Market value of assets as of June 30, 2016 and 2018	<u>44,229,773</u>	<u>62,623,693</u>
6. Unfunded actuarial accrued liability (UAAL) as of June 30, 2016 and 2018	\$75,927,203	\$51,444,900
7. Funded ratio: (5) / (4)	36.8%	54.9%
Annual Required Contribution for Fiscal Year Ending June 30, 2017 and 2019		
8. Normal Cost	\$3,258,450	\$4,025,489
9. Adjustment for timing	<u>53,647</u>	<u>65,077</u>
10. Normal Cost adjusted for timing: (8) + (9)	\$3,312,097	\$4,090,566
11. 21-year amortization (6-year for MLP) increasing 3.5% per year for fiscal 2017 and 19-year amortization (4-year for MLP) increasing 3.0% per year for fiscal 2019 of the unfunded actuarial accrued liability (UAAL)	\$5,089,668	\$3,509,439
12. Adjustment for timing	<u>83,796</u>	<u>56,734</u>
13. Amortization payment adjusted for timing: (11) + (12)	\$5,173,464	\$3,566,173
14. Total Actuarially Determined Contribution (ADC): (10) + (13)	8,485,561	7,656,739
15. Projected benefit payments	4,620,670	4,859,626

Note: Adjustment for timing assumes payment occurs at the end of the first quarter of the fiscal year.

Department Results

	All Other	MLP	School Non-teachers	School Teacher	Water and Sewer	TOTAL
Actuarial Accrued Liability by Participant Category						
1. Current retirees, beneficiaries and dependents	\$19,965,184	\$2,841,960	\$4,931,650	\$26,006,220	\$990,529	\$54,735,543
2. Current active employees	<u>23,938,975</u>	<u>1,984,334</u>	<u>5,190,156</u>	<u>28,903,317</u>	<u>2,697,535</u>	<u>62,714,317</u>
3. Total as of December 31, 2018: (1) + (2)	\$43,904,159	\$4,826,294	\$10,121,806	\$54,909,537	\$3,688,064	\$117,449,860
4. Total as of June 30, 2018	42,731,360	4,739,956	9,731,062	53,277,708	3,588,507	114,068,593
5. Market value of assets as of June 30, 2018	<u>22,317,230</u>	<u>5,371,005</u>	<u>5,135,767</u>	<u>27,868,031</u>	<u>1,931,660</u>	<u>62,623,693</u>
6. Unfunded actuarial accrued liability (UAAL) as of June 30, 2018	\$20,414,130	-\$631,049	\$4,595,295	\$25,409,677	\$1,656,847	\$51,444,900
7. Funded ratio: (5) / (4)	52.2%	113.3%	52.8%	52.3%	53.8%	54.9%
Annual Required Contribution for Fiscal Year Ending June 30, 2019						
8. Normal Cost as of June 30, 2018	\$1,327,145	\$128,271	\$631,160	\$1,851,036	\$87,878	\$4,025,489
9. Adjustment for timing	<u>21,455</u>	<u>2,074</u>	<u>10,203</u>	<u>29,924</u>	<u>1,421</u>	<u>65,077</u>
10. Normal Cost adjusted for timing: (8) + (9)	\$1,348,600	\$130,344	\$641,363	\$1,880,960	\$89,299	\$4,090,566
11. 19-year amortization (4-year for MLP) increasing 3.0% per year for fiscal 2019 of the unfunded actuarial accrued liability (UAAL)	\$1,440,813	-\$166,040	\$324,332	\$1,793,395	\$116,939	\$3,509,439
12. Adjustment for timing	<u>23,293</u>	<u>-2,684</u>	<u>5,243</u>	<u>28,992</u>	<u>1,890</u>	<u>56,734</u>
13. Amortization payment adjusted for timing: (11) + (12)	\$1,464,106	-\$168,724	\$329,575	\$1,822,387	\$118,829	\$3,566,173
14. Total Actuarially Determined Contribution (ADC): (10) + (13)	2,812,706	-38,380	970,938	3,703,347	208,128	7,656,739
15. Projected benefit payments	1,821,478	270,420	507,655	2,133,746	126,327	4,859,626

Notes: Adjustment for timing assumes payment occurs at the end of the first quarter of the fiscal year.
Market value of assets for the all other department includes WSVD total of \$38,284.

Projections of the Actuarial Determined Contribution

Town of Wellesley - TOWN

19-year closed amortization, payments increasing 3.0% per year

Fiscal Year Ending June 30	(1) Normal Cost	(2) Amortization of UAAL	(3) Actuarially Determined Contribution (1) + (2)	(4) Projected Benefits Paid by the Town	(5) Contribution to OPEB Trust	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) - (6)
2019	\$3,870,923	\$3,616,068	\$7,486,991	\$4,462,879	\$3,438,371	\$62,593,883	\$112,198,782	\$49,604,899
2020	3,993,031	3,697,703	7,690,734	4,797,715	3,438,371	70,428,655	118,867,696	48,439,041
2021	4,118,991	3,764,166	7,883,157	5,246,152	3,438,371	78,789,966	125,647,541	46,857,575
2022	4,248,925	3,808,743	8,057,668	5,675,734	3,438,371	87,712,385	132,569,304	44,856,919
2023	4,382,957	3,828,398	8,211,355	6,170,799	3,438,371	97,234,179	139,579,072	42,344,893
2024	4,521,218	3,811,239	8,332,457	6,658,613	3,438,371	107,394,935	146,694,598	39,299,663
2025	4,663,839	3,748,954	8,412,793	7,023,427	3,438,371	118,234,930	154,054,473	35,819,543
2026	4,810,960	3,642,773	8,453,733	7,463,192	3,438,371	129,800,416	161,602,214	31,801,798
2027	4,962,722	3,471,667	8,434,389	7,942,975	3,438,371	142,140,125	169,313,814	27,173,689
2028	5,119,271	3,210,483	8,329,754	8,291,684	3,438,371	155,303,161	177,340,497	22,037,336
2029	5,280,758	2,846,021	8,126,779	8,682,388	3,438,371	169,344,769	185,664,955	16,320,186
2030	5,447,340	2,332,455	7,779,795	9,119,359	3,438,371	184,323,929	194,264,488	9,940,559
2031	5,619,176	1,596,998	7,216,174	9,529,730	3,438,371	200,302,309	203,190,298	2,887,989
2032	5,796,433	532,361	6,328,794	0	8,731,110	222,733,777	222,733,777	0
2033	5,979,282	0	5,979,282	0	5,979,282	243,763,872	243,763,872	0
2034	6,167,898	0	6,167,898	0	6,167,898	266,385,124	266,385,124	0
2035	6,362,465	0	6,362,465	0	6,362,465	290,709,189	290,709,189	0
2036	6,563,168	0	6,563,168	0	6,563,168	316,855,320	316,855,320	0
2037	6,770,204	0	6,770,204	0	6,770,204	344,950,872	344,950,872	0

Notes: Adjustment for timing assumes payment occurs at the end of the first quarter of the fiscal year.
 Normal cost is projected to increase 3.00% per year for inflation and does not reflect the future impact of pension reform for new hires.
 Assets are assumed to return 6.625% per year.
 Beginning in fiscal 2032 projected benefits are paid from the Trust.

Town of Wellesley - WATER AND SEWER

19-year closed amortization, payments increasing 3.0% per year

Fiscal Year Ending June 30	(1) Normal Cost	(2) Amortization of UAAL	(3) Actuarially Determined Contribution (1) + (2)	(4) Projected Benefits Paid by the Town	(5) Contribution to OPEB Trust	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) - (6)
2019	\$89,299	\$118,829	\$208,128	\$126,327	\$55,000	\$2,117,343	\$3,789,501	\$1,672,158
2020	92,116	124,648	216,764	138,892	55,000	2,317,646	3,993,792	1,676,146
2021	95,022	130,252	225,274	164,454	55,000	2,531,646	4,188,272	1,656,626
2022	98,019	134,656	232,675	194,236	55,000	2,760,321	4,368,028	1,607,707
2023	101,111	137,213	238,324	212,251	55,000	3,004,446	4,544,335	1,539,889
2024	104,301	138,597	242,898	215,651	55,000	3,264,802	4,732,159	1,467,357
2025	107,591	139,977	247,568	226,311	55,000	3,542,583	4,924,871	1,382,288
2026	110,985	140,576	251,561	237,778	55,000	3,838,960	5,122,070	1,283,110
2027	114,486	140,072	254,558	236,023	55,000	4,154,942	5,337,819	1,182,877
2028	118,097	139,753	257,850	249,990	55,000	4,492,090	5,557,230	1,065,140
2029	121,822	137,558	259,380	267,740	55,000	4,851,871	5,776,756	924,885
2030	125,665	132,183	257,848	275,635	55,000	5,235,620	6,006,706	771,086
2031	129,630	123,879	253,509	288,038	55,000	5,644,999	6,243,243	598,244
2032	133,719	110,278	243,997	301,000	55,000	6,081,715	6,486,356	404,641
2033	137,937	88,022	225,959	314,545	55,000	6,547,591	6,736,016	188,425
2034	142,288	50,379	192,667	328,699	5,060	6,992,165	6,992,165	0
2035	146,777	0	146,777	0	146,777	7,609,407	7,609,407	0
2036	151,407	0	151,407	0	151,407	8,272,400	8,272,400	0
2037	156,183	0	156,183	0	156,183	8,984,327	8,984,327	0

Notes: Adjustment for timing assumes payment occurs at the end of the first quarter of the fiscal year.

Normal cost is projected to increase 3.00% per year for inflation and does not reflect the future impact of pension reform for new hires.

Assets are assumed to return 6.625% per year.

Beginning in fiscal 2035 projected benefits are paid from the Trust.

Town of Wellesley – MUNICIPAL LIGHT PLANT

Alternative Contribution Scenario - No contribution to OPEB Trust until overfunding is eliminated

Fiscal Year Ending June 30	(1) Normal Cost	(2) Amortization of UAAL	(3) Actuarially Determined Contribution (1) + (2)	(4) Projected Benefits Paid by the Town	(5) Contribution to OPEB Trust	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) - (6)
2019	\$130,344	\$0	\$130,344	\$0	\$0	\$5,726,835	\$5,190,747	-\$536,088
2020	134,456	0	134,456	0	0	6,106,237	5,675,716	-430,521
2021	138,697	0	138,697	0	0	6,510,776	6,197,266	-313,510
2022	143,072	0	143,072	0	0	6,942,114	6,757,959	-184,155
2023	147,586	0	147,586	0	0	7,402,030	7,360,533	-41,497
2024	152,241	0	152,241	0	110,073	8,007,913	8,007,913	0
2025	157,044	0	157,044	0	157,044	8,703,221	8,703,221	0
2026	161,998	0	161,998	0	161,998	9,449,791	9,449,791	0
2027	167,108	0	167,108	0	167,108	10,251,184	10,251,184	0
2028	172,379	0	172,379	0	172,379	11,111,201	11,111,201	0
2029	177,817	0	177,817	0	177,817	12,033,899	12,033,899	0
2030	183,426	0	183,426	0	183,426	13,023,611	13,023,611	0
2031	189,212	0	189,212	0	189,212	14,084,964	14,084,964	0
2032	195,181	0	195,181	0	195,181	15,222,894	15,222,894	0
2033	201,338	0	201,338	0	201,338	16,442,672	16,442,672	0
2034	207,689	0	207,689	0	207,689	17,749,925	17,749,925	0
2035	214,241	0	214,241	0	214,241	19,150,657	19,150,657	0
2036	220,999	0	220,999	0	220,999	20,651,280	20,651,280	0
2037	227,971	0	227,971	0	227,971	22,258,634	22,258,634	0

Notes: Adjustment for timing assumes payment occurs at the end of the first quarter of the fiscal year.

Normal cost is projected to increase 3.00% per year for inflation and does not reflect the future impact of pension reform for new hires.

Assets are assumed to return 6.625% per year.

Beginning in fiscal 2019 projected benefits are paid from the Trust.



Section 3: Supporting Information

EXHIBIT I – SUMMARY OF PARTICIPANT DATA AS OF JUNE 30, 2016 AND DECEMBER 31, 2018

Summary of Participant Data	June 30, 2016	December 31, 2018
Active Employees Covered for Medical Benefits		
• Number of employees		
• Male	374	373
• Female	<u>518</u>	<u>555</u>
• Total	892	928
• Average age	45.9	45.8
• Average service	11.2	11.1
Retirees, Beneficiaries and Dependents Covered for Medical Benefits		
• Number	889	905
• Average age	74.1	75.3
Retired employees eligible for life insurance¹		
• Number	317	302
• Average age	77.0	77.6

¹ June 30, 2016 and December 31, 2018 counts include 31 and 33 retirees with life insurance only, respectively.

EXHIBIT II – ACTUARIAL ASSUMPTIONS AND METHODS

Data:	Detailed census data, premium rates and summary plan descriptions for postemployment welfare benefits were provided by the Town of Wellesley.
Actuarial Cost Method:	Entry Age Normal – Level percentage of payroll (previously, Projected Unit Credit)
Per Capita Cost Development:	Per capita costs were based on the fully-insured premium rates effective July 1, 2018 (January 1, 2019 for Medicare plans). Premiums were combined by taking a weighted average based on the number of participants in each plan, and were then trended to the midpoint of the valuation year at assumed trend rates. Actuarial factors were applied to the weighted average premium to estimate individuals retiree and spouse costs by age and by gender.
Valuation Date:	December 31, 2018
Roll-Forward Technique:	<p>The results of the December 31, 2018 actuarial valuation were rolled to June 30, 2018 to determine the Actuarially Determined Contribution for the fiscal year ending June 30, 2019</p> <p>To project the Actuarially Determined Contribution for fiscal year 2020 and later, liabilities were rolled forward from June 30, 2018 using standard actuarial techniques.</p>
Expected Return on Assets:	<p>6.625% (previously, 6.75%)</p> <p>Long-term rate of return on investments expected to be used to finance the benefits. The expected return was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce a long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.</p>
Discount Rate:	<p>6.625% (previously, 6.75%)</p> <p>The discount rate is equal to the expected return on assets.</p>

Salary Increases:	Years of Service	Groups 1 and 2	Group 4	Teachers
	0	7.00%	8.00%	7.50%
	1	6.50%	7.50%	7.10%
	2	6.00%	7.00%	7.00%
	3	5.50%	6.50%	6.90%
	4	5.25%	6.00%	6.80%
	5	5.00%	5.50%	6.70%
	6	4.75%	5.25%	6.60%
	7	4.50%	5.00%	6.50%
	8	4.25%	4.75%	6.30%
	9	4.00%	4.50%	6.10%
	10	3.75%	4.25%	5.90%
	11	3.50%	4.00%	5.70%
	12	3.50%	4.00%	5.20%
	13	3.50%	4.00%	4.70%
	14	3.50%	4.00%	4.35%
	15 – 16	3.50%	4.00%	4.20%
	17 – 19	3.50%	4.00%	4.10%
	20+	3.50%	4.00%	4.00%

Note: Total payroll is assumed to increase 3.0% per year.

Asset Valuation Method:	Market Value
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Mortality Rates:

Pre-Retirement: RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2016 set forward one year for females (previously, RP-2014 Blue Collar Employee Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D)

Healthy Retiree: RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2016 set forward one year for females (previously, RP-2014 Blue Collar Healthy Annuitant Mortality Table with MP-2014 improvement projections backed out to a base year of 2006 and projected generationally with Scale BB2D)

Disabled Retiree: RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015 (previously, RP-2014 Blue Collar Healthy Annuitant Mortality Table with MP-2014 improvement projections based out to a base year of 2006 projected generationally with Scale BB2D set forward 3 years for males)

Pre-Retirement (Teachers): RP-2014 White Collar Employee Mortality Table projected generationally with Scale MP-2016 (previously, RP-2014 Employee Mortality Table projected generationally with Scale BB2D from 2014)

Healthy (Teachers): RP-2014 White Collar Healthy Annuitant Mortality Table projected generationally using Scale MP-2016 (previously, RP-2014 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2014)

Disabled (Teachers): RP-2014 White Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2016 (previously, RP-2014 Healthy Annuitant Mortality Table set forward 4 years projected generationally with Scale BB2D from 2014)

The underlying tables with generational projection to the ages of participants as of the measurement date reasonably reflect the mortality experience of the plan as of the measurement date. The mortality tables were then adjusted to future years using generational projection to reflect future mortality improvement between the measurement date and those years.

Non-Teacher Annuitant Mortality Rates:	Rate per year (%)							
	Healthy				Disabled			
	Current		Previous		Current		Previous	
	Age	Male	Female	Male	Female	Male	Female	Male
60	0.85	0.62	0.89	0.66	0.82	0.62	1.18	0.66
70	1.97	1.54	2.38	1.70	2.22	1.67	3.19	1.70
80	5.19	4.24	6.38	4.54	6.44	4.59	8.60	4.54
90	14.64	12.43	17.31	13.38	18.34	13.17	22.40	13.38

Note: Rates shown are before generational projection.

Teacher Annuitant Mortality Rates:

Age	Rate per year (%)							
	Healthy				Disabled			
	Current		Previous		Current		Previous	
	Male	Female	Male	Female	Male	Female	Male	Female
60	0.52	0.39	0.78	0.52	0.52	0.39	1.02	0.74
70	1.24	1.06	1.68	1.29	1.24	1.06	2.43	1.90
80	3.73	3.04	4.47	3.48	3.73	3.04	6.93	5.40
90	12.62	10.02	13.59	10.71	12.62	10.02	20.11	16.30

Note: Rates shown are before generational projection.

Termination Rates Before Retirement:

Age	Groups 1 and 2 (excluding Teachers) - Rate per year (%)					
	Mortality					Disability
	Current		Previous			
	Male	Female	Male	Female		
20	0.05	0.02	0.07	0.02	0.01	
25	0.06	0.02	0.07	0.02	0.02	
30	0.06	0.03	0.06	0.02	0.03	
35	0.07	0.03	0.07	0.03	0.06	
40	0.08	0.05	0.10	0.05	0.10	
45	0.13	0.08	0.16	0.09	0.15	
50	0.22	0.14	0.26	0.13	0.19	
55	0.36	0.20	0.38	0.19	0.24	
60	0.61	0.30	0.64	0.31	0.28	

Notes: 55% of the disability rates shown represent accidental disability and death.
Rates shown are before generational projection.

Termination Rates Before Retirement (continued):

Age	Group 4 - Rate per year (%)					Disability
	Mortality					
	Current		Previous			
	Male	Female	Male	Female		
20	0.05	0.02	0.07	0.02	0.10	
25	0.06	0.02	0.07	0.02	0.20	
30	0.06	0.03	0.06	0.02	0.30	
35	0.07	0.03	0.07	0.03	0.30	
40	0.08	0.05	0.10	0.05	0.30	
45	0.13	0.08	0.16	0.09	1.00	
50	0.22	0.14	0.26	0.13	1.25	
55	0.36	0.20	0.38	0.19	1.20	
60	0.61	0.30	0.64	0.31	0.85	

Notes: 90% of the disability rates shown represent accidental disability and death.
Rates shown are before generational projection.

Termination Rates Before Retirement (continued):

Age	Teachers – Rate per year (%)					Disability
	Mortality					
	Current		Previous			
	Male	Female	Male	Female		
20	0.03	0.01	0.04	0.02	0.00	
25	0.03	0.01	0.05	0.02	0.01	
30	0.03	0.02	0.05	0.02	0.01	
35	0.04	0.02	0.05	0.03	0.01	
40	0.04	0.03	0.06	0.04	0.01	
45	0.07	0.06	0.10	0.07	0.03	
50	0.12	0.09	0.17	0.11	0.05	
55	0.20	0.14	0.28	0.17	0.07	
60	0.33	0.21	0.47	0.24	0.07	

Notes: 75% of the death rates shown represent accidental death.
 35% of the disability rates shown represent accidental disability.
 Rates shown are before generational projection.

Withdrawal Rates:

Rate per year (%)					
Years of Service	Groups 1 and 2 (excluding Teachers)	Years of Service	Groups 1 and 2 (excluding Teachers)	Years of Service	Group 4
0	15.0	10	5.4	0 – 10	1.5
1	12.0	11	5.0	11+	0.0
2	10.0	12	4.6		
3	9.0	13	4.1		
4	8.0	14	3.7		
5	7.6	15	3.3		
6	7.5	16 – 20	2.0		
7	6.7	21 – 29	1.0		
8	6.3	30+	0.0		
9	5.9				

Teachers - Rate per year (%)						
Age	0 – 4 Years of Service		5 – 9 Years of Service		10+ Years of Service	
	Male	Female	Male	Female	Male	Female
20	13.0	10.0	5.5	7.0	1.5	5.0
30	15.0	15.0	5.4	8.8	1.5	4.5
40	13.3	10.5	5.2	5.0	1.7	2.2
50	16.2	9.8	7.0	5.0	2.3	2.0

Retirement Rates:	Rate per year (%)		
	Groups 1 and 2 (excluding Teachers)		Group 4
	Age	Male	
50	--	--	2.0
51	--	--	2.0
52	--	--	2.0
53	--	--	2.0
54	--	--	2.0
55	1.00	2.750	10.0
56	1.25	3.250	5.0
57	1.25	3.250	5.0
58	2.50	3.250	5.0
59	3.25	3.250	15.0
60	9.00	3.750	20.0
61	15.00	9.750	20.0
62	22.50	11.250	25.0
63	18.75	9.375	25.0
64	16.50	13.500	30.0
65	40.00	15.000	100.0
66	25.00	20.000	100.0
67	25.00	20.000	100.0
68	30.00	25.000	100.0
69	30.00	20.000	100.0
70	100.00	100.000	100.0

Retirement Rates (continued):

Age	Teachers - Rate per year (%)					
	Years of Service					
	Less than 20		20 - 29		30 or more	
	Male	Female	Male	Female	Male	Female
50 – 52	--	--	1.0	1.0	2.0	1.5
53	--	--	1.5	1.0	2.0	1.5
54	--	--	2.5	1.0	2.0	2.0
55	5.0	3.0	3.0	3.0	6.0	5.0
56	5.0	3.0	6.0	5.0	20.0	15.0
57	5.0	4.0	10.0	8.0	40.0	35.0
58	5.0	8.0	15.0	10.0	50.0	35.0
59	10.0	8.0	20.0	15.0	50.0	35.0
60	10.0	10.0	25.0	20.0	40.0	35.0
61	20.0	12.0	30.0	25.0	40.0	35.0
62	20.0	12.0	35.0	30.0	35.0	35.0
63	25.0	15.0	40.0	30.0	35.0	35.0
64	25.0	20.0	40.0	30.0	35.0	35.0
65	25.0	25.0	40.0	40.0	35.0	35.0
66	30.0	25.0	30.0	30.0	40.0	35.0
67	30.0	30.0	30.0	30.0	40.0	30.0
68	30.0	30.0	30.0	30.0	40.0	30.0
69	30.0	30.0	30.0	30.0	40.0	30.0
70	100.0	100.0	100.0	100.0	100.0	100.0

Dependents:

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives. For future retirees who elect to continue their health coverage at retirement, 65% were assumed to have an eligible spouse who also opts for health coverage at that time.

Per Capita Health Costs:

Calendar year 2019 medical and prescription drug claims costs are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Age	Non-Medicare Plans				Medicare Plans			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
45	\$9,135	\$11,460	\$5,666	\$8,554	N/A	N/A	N/A	N/A
50	10,842	12,349	7,573	9,916	N/A	N/A	N/A	N/A
55	12,876	13,294	10,134	11,478	N/A	N/A	N/A	N/A
60	15,292	14,329	13,566	13,312	N/A	N/A	N/A	N/A
65	18,161	15,437	18,161	15,437	\$4,061	\$3,452	\$4,061	\$3,452
70	21,049	16,635	21,049	16,635	4,707	3,720	4,707	3,720
75	22,683	17,907	22,683	17,907	5,072	4,004	5,072	4,004
80	24,427	19,305	24,427	19,305	5,462	4,317	5,462	4,317

Annual Medicare Part B Reimbursement:

\$813

Health Savings Account and Health Reimbursement Account Costs:

Individual \$507
 Family \$1,052

These costs are assumed to remain level.

Weighted Average Annual Retiree Contribution Amount:

	Non-Medicare	Medicare
Retiree	\$2,807	\$2,225
Surviving Spouse	4,383	

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year’s cost to yield the next year’s projected cost.

Year Ending December 31	Medical/ Prescription Drug	Medicare Part B Premium
2019	7.00%	4.50%
2020	6.50%	4.50%
2021	6.50%	4.50%
2022	5.50%	4.50%
2023	5.00%	4.50%
2024 & later	4.50%	4.50%

The trend rate assumptions were developed using Segal’s internal guidelines, which are established each year using data sources such as the 2018 Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

Retiree Contribution Increase Rate:

Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend.

Administrative Expenses:

Administrative expenses are assumed to be included in the fully insured premium rates.

Participation and Coverage Election:

125% (previously, 115%) of active employees with coverage are assumed to elect retiree coverage.

100% of retirees over age 65 are assumed to remain with their current medical plan for life.

For future retirees hired prior to 1986 and current retirees under age 65, 90% are assumed to be eligible for Medicare and are assumed to enroll in a Medicare plan upon reaching age 65 and 10% are assumed to remain enrolled in a non-Medicare plan.

For future retirees hired in 1986 or later, 100% are assumed to enroll in a Medicare plan upon reaching age 65.

75% of future retirees with medical coverage are assumed to have life insurance coverage.

Plan Design:

Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.

Missing Participant Data:

A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.

Health Care Reform Assumption: This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 other than the excise tax on high cost health plans beginning in 2022 (reflected with this valuation) and those previously adopted as of the valuation date.

Demographic and Salary Increase Assumptions: Many of the demographic assumptions used in this valuation for non-teachers (including mortality, disability, turnover, and retirement) and the salary increase assumptions are the same as used in the Town of Wellesley Contributory Retirement System Actuarial Valuation and Review as of January 1, 2017, dated October 26, 2017, completed by Segal Consulting. The assumptions used in this valuation for teachers are the same as used in the Massachusetts Teachers' Retirement System Actuarial Valuation Report as of January 1, 2018, dated October 10, 2018, completed by PERAC. A review of these demographic assumptions is beyond the scope of this assignment, however, we have no reason to doubt the reasonableness of these assumptions.

The remaining demographic assumptions, such as percent married, relative ages of spouses, and enrollment elections, were based on the experience of the Plan and the experience of similar plans

Justification for Assumption Changes Since Prior Valuation: Based on past experience and future expectations, the following actuarial assumptions were changed:

- The per capita health costs were updated to reflect current experience.
- The trend assumptions were revised to reflect future expectations.
- The mortality assumptions were changed to match the assumptions used in the Town of Wellesley Contributory Retirement System Actuarial Valuation and Review as of January 1, 2017, dated October 26, 2017, and the Massachusetts Teachers' Retirement System Actuarial Valuation Report as of January 1, 2018, dated October 10, 2018.
- The excise tax on high cost health plans beginning in 2022 was recalculated with this valuation.
- The expected rate of return was decreased from 6.75% to 6.625%.
- The funding method was changed to be consistent with the method used for accounting disclosures.
- The future retiree plan enrollment assumption for actives increased from 115% to 125%.

EXHIBIT III – SUMMARY OF PLAN

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility:	<p>Retired and receiving a pension from the Town of Wellesley Contributory Retirement System or the Massachusetts Teachers' Retirement System.</p> <ul style="list-style-type: none">• Members hired before April 2, 2012<ul style="list-style-type: none">– Groups 1 and Group 2 (including Teachers):<ul style="list-style-type: none">» Retirees with at least 10 years of creditable service are eligible at age 55;» Retirees with at least 20 years of creditable service are eligible at any age.– Group 4<ul style="list-style-type: none">» Retirees are eligible at age 55;» Retirees with at least 20 years of creditable service are eligible at any age.• Members hired on or after April 2, 2012<ul style="list-style-type: none">– Group 1 (including Teachers):<ul style="list-style-type: none">» Retirees with at least 10 years of creditable service are eligible at age 60.– Group 2<ul style="list-style-type: none">» Retirees with at least 10 years of creditable service are eligible at age 55.– Group 4<ul style="list-style-type: none">» Retirees are eligible at age 55;» Retirees with at least 10 years of creditable service are eligible at age 50.
Disability:	<p>Accidental (job-related) Disability has no age or service requirement.</p> <p>Ordinary (non-job related) Disability has no age requirement but requires 10 years of creditable service.</p>
Pre-Retirement Death:	<p>Surviving spouses of members who die in active service on Accidental (job-related) Death are eligible at any age.</p> <p>Surviving spouses of members who die in active service on Ordinary (non-job related) Death are eligible after two years of service.</p>
Post-Retirement Death:	<p>Surviving spouse is eligible.</p>

Benefit Types: The Town of Wellesley participates in the West Suburban Health Group. Medical and prescription drug benefits are provided to all eligible retirees through a variety of plans offered by Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care, Tufts Health Plan, and Fallon Community Health Plan. Retirees enrolled in a high deductible plan are eligible for a Health Savings Account (HSA) and non-Medicare retirees are eligible for a Health Reimbursement Account (HRA). The Town of Wellesley also pays 50% of the retiree life insurance premium and 50% of the Medicare Part B premium.

Duration of Coverage: Lifetime.

Dependent Benefits: Medical and Prescription Drugs.

Dependent Coverage: Benefits are payable to a spouse for their lifetime, regardless of when the retirees dies.

MGL Chapter 32B, Section 18A: Effective July 1, 2011.

Retiree Contributions: Premium rates and retiree contributions as of July 1, 2018 are summarized below:

Non-Medicare Plans	Subscribers			Retirees 65 and over*	Premium (as of July 1, 2018)		Retiree Cost %	Surviving Spouse Cost %
	Active	Retiree	Total		Retiree cost			
Harvard Pilgrim HMO Benchmark								
• Individual	28	6	34	4	\$885.00	\$336.30	38%	50%
• Family	18	4	22	2	\$2,305.00	\$875.90	38%	50%
Tufts Health Plan Benchmark								
• Individual	17	16	33	16	\$945.00	\$378.00	40%	50%
• Family	17	2	19	0	\$2,474.00	\$989.60	40%	50%
Blue Cross Blue Shield Benchmark								
• Individual	7	0	7	0	\$980.00	\$378.00	45%	50%
• Family	2	2	4	0	\$2,628.00	\$989.60	45%	50%
Fallon Direct Benchmark								
• Individual	15	1	16	1	\$647.00	\$129.40	20%	50%
• Family	6	1	7	0	\$1,742.00	\$348.40	20%	50%
Fallon Select Benchmark								
• Individual	219	23	242	6	\$695.00	\$139.00	20%	50%
• Family	359	28	387	11	\$1,873.00	\$374.60	20%	50%
Harvard Pilgrim PPO Benchmark								
• Individual	0	1	1	1	\$2,612.00	\$1,306.00	50%	50%
• Family	0	0	0	0	\$5,800.00	\$2,900.00	50%	50%
Harvard Pilgrim High Deductible								
• Individual	8	2	10	1	\$698.00	\$223.36	32%	50%
• Family	19	1	20	1	\$1,820.00	\$582.40	32%	50%
Tufts Health Plan High Deductible								
• Individual	7	4	11	3	\$745.00	\$268.20	36%	50%
• Family	7	0	7	0	\$1,952.00	\$702.72	36%	50%
Blue Cross Blue Shield High Deductible								
• Individual	3	2	5	2	\$807.00	\$338.94	42%	50%
• Family	4	1	5	0	\$2,166.00	\$909.72	42%	50%
Fallon Direct High Deductible								
• Individual	6	1	7	0	\$556.00	\$111.20	20%	50%
• Family	1	0	1	0	\$1,498.00	\$299.60	20%	50%
Fallon Select High Deductible								
• Individual	83	0	83	0	\$596.00	\$119.20	20%	50%
• Family	102	0	102	0	\$1,608.00	\$321.60	20%	50%
Non-Medicare Total	928	95	1023					

Medicare Supplement Plans	Retiree Subscribers	Premium (as of January 1, 2019)	Retiree cost	Retiree Cost %	Surviving Spouse Cost %
BC Medex	175	\$392.00	\$128.25	33%	50%
Harvard Pilgrim Medicare Enhance	131	\$370.00	\$117.25	32%	50%
BC Managed Blue for Seniors	9	\$365.00	\$114.75	31%	50%
Tufts Medicare Plus (formerly Prime Supp)	88	\$369.00	\$116.75	32%	50%
Tufts Medicare Preferred	66	\$317.00	\$90.75	29%	50%
Falon Senior Plan	3	\$399.00	\$131.75	33%	50%
Medicare Total	472				
Retiree Total**	567				

* 48 of 520 over-65 retirees are in a non-Medicare plan

** In addition, there are 338 spouses of retirees covered under an individual or family policy.

*** Counts exclude 73 active participants who elected the opt-out provision.

Plan Changes Since the Prior Valuation:

This valuation reflects the terms of the memorandum of agreement (MOA) effective July 1, 2018, concerning health insurance for Town employees and retirees. This includes changes to the retiree premium as illustrated above and the introduction of high deductible plans with a Health Savings Account and Health Reimbursement Account for non-Medicare retirees.

EXHIBIT IV – DEFINITION OF TERMS

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: <ul style="list-style-type: none"> (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; (c) Retirement rates — the rate or probability of retirement at a given age; (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Actuarial Accrued Liability (AAL):	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
Unfunded Actuarial Accrued Liability (UAAL):	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There are many approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Normal Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.
Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
Valuation Date:	The date at which the actuarial valuation is performed
Covered Employee Payroll:	The payroll of the employees that are provided OPEB benefits
Entry Age Actuarial Cost Method:	An actuarial cost method where the present value of the projected benefits for an individual is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time
Discount Rate:	The interest rate used to determine the actuarial present value of projected benefit payments.
Expected Return on Assets:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Real Rate of Return:	The rate of return on an investment after removing inflation