



GASB 74/75 INTERIM ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2020

TOWN OF CUMBERLAND

CONTACT

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December 9, 2020

**Raymond Chauvin
Town of Cumberland
45 Broad Street
Cumberland, RI 02864**

This report summarizes the interim GASB actuarial valuation for the Town of Cumberland 2019/20 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans) and GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

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

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

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

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

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

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

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

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



Suraj M. Datta, ASA, MAAA
Consulting Actuary



Matt Sherertz, ASA, MAAA
Valuation Actuary

Executive Summary

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Summary of Results

Presented below is the summary of GASB 75 results for the fiscal year ending June 30, 2020 compared to the prior fiscal year as shown in the Town's Notes to Financial Statement.

	As of June 30, 2019	As of June 30, 2020
Total OPEB Liability	\$ 22,625,721	\$ 22,743,170
Actuarial Value of Assets	\$ (4,523,497)	\$ (5,211,084)
Net OPEB Liability	\$ 18,102,224	\$ 17,532,086
Funded Ratio	20.0%	22.9%

	FY 2018/19	FY 2019/20
OPEB Expense	\$ 1,396,421	\$ 716,668
Annual Employer Contributions	\$ 1,575,235	\$ 1,320,000
Actuarially Determined Contribution	\$ 1,608,912	\$ 1,316,810

	As of June 30, 2019	As of June 30, 2020
Discount Rate	7.25%	7.25%
Expected Return on Assets	7.25%	7.25%

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2019/20	FY 2018/19	FY 2017/18	FY 2016/17
Total OPEB Liability				
Total OPEB Liability - beginning of year	\$ 22,625,721	\$ 24,410,114	\$ 25,225,070	\$ 21,785,100
Service cost	306,987	426,530	426,356	434,661
Interest	1,632,408	1,832,913	1,890,431	1,568,378
Change of benefit terms	0	0	0	0
Changes in assumptions	0	(130,760)	0	394,753
Differences between expected and actual experience	(973,636)	(3,102,808)	(2,223,963)	2,821,128
Benefit payments	(848,310)	(810,268)	(907,780)	(1,778,950)
Net change in total OPEB liability	\$ 117,449	\$ (1,784,393)	\$ (814,956)	\$ 3,439,970
Total OPEB Liability - end of year	\$ 22,743,170	\$ 22,625,721	\$ 24,410,114	\$ 25,225,070
Plan Fiduciary Net Position				
Plan fiduciary net position - beginning of year	\$ 4,523,497	\$ 3,423,480	\$ 2,642,534	\$ 2,235,019
Contributions - employer	1,320,000	1,575,235	1,503,461	1,903,000
Contributions - active employees	0	0	0	0
Net investment income	234,124	350,683	197,255	297,230
Benefit payments	(848,310)	(810,268)	(907,780)	(1,778,950)
Trust administrative expenses	(18,227)	(15,633)	(11,990)	(13,765)
Net change in plan fiduciary net position	\$ 687,587	\$ 1,100,017	\$ 780,946	\$ 407,515
Plan fiduciary net position - end of year	\$ 5,211,084	\$ 4,523,497	\$ 3,423,480	\$ 2,642,534
Net OPEB Liability - end of year	\$ 17,532,086	\$ 18,102,224	\$ 20,986,634	\$ 22,582,536
Plan fiduciary net position as % of total OPEB liability	22.9%	20.0%	14.0%	10.5%
Covered employee payroll	\$ 2,202,703	\$ 2,159,513	\$ 2,210,352	\$ 2,167,012
Net OPEB liability as % of covered payroll	795.9%	838.3%	949.5%	1,042.1%

* FY 2019/20 covered payroll is estimated based on the FY 2018/19 payroll increased by the inflation assumption (2.0%). FY 2017/18 covered payroll is estimated based on the FY 2016/17 payroll increased by the inflation assumption (2.0%).

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Schedule of Employer Contributions

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

	FY 2019/20	FY 2018/19	FY 2017/18	FY 2016/17	FY 2015/16
Actuarially Determined Contribution (ADC)	\$ 1,316,810	\$ 1,608,912	\$ 1,677,202	\$ 1,778,950	\$ 1,393,964
Contributions in relation to the ADC	1,320,000	1,575,235	1,503,461	1,903,000	1,550,643
Contribution deficiency/(excess)	\$ (3,190)	\$ 33,677	\$ 173,741	\$ (124,050)	\$ (156,679)
Covered employee payroll	\$ 2,202,703	\$ 2,159,513	\$ 2,210,352	\$ 2,167,012	\$ 2,203,419
Contribution as a % of covered payroll	59.9%	72.9%	68.0%	87.8%	70.4%
	FY 2014/15	FY 2013/14	FY 2012/13	FY 2011/12	FY 2010/11
Actuarially Determined Contribution (ADC)	\$ 1,294,570	\$ 1,578,570	\$ 1,657,531	\$ 3,521,332	\$ 4,393,000
Contributions in relation to the ADC	1,420,875	1,320,001	1,311,166	1,565,322	857,393
Contribution deficiency/(excess)	\$ (126,305)	\$ 258,569	\$ 346,365	\$ 1,956,010	\$ 3,535,607
Covered employee payroll	N/A	N/A	N/A	\$ 32,459,010	N/A
Contribution as a % of covered payroll	N/A	N/A	N/A	4.8%	N/A

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

OPEB Expense

OPEB Expense	FY 2019/20	FY 2018/19
Discount Rate		
Beginning of year	7.25%	7.50%
End of year	7.25%	7.25%
Service cost	\$ 306,987	\$ 426,530
Interest	1,632,408	1,832,913
Change of benefit terms	0	0
Projected earnings on OPEB plan investments	(344,104)	(284,353)
Reduction for contributions from active employees	0	0
OPEB plan administrative expenses	18,227	15,633
Current period recognition of deferred outflows / (inflows) of resources		
Differences between expected and actual experience	\$ (950,956)	\$ (626,411)
Changes in assumptions	65,999	65,998
Net difference between projected and actual earnings on OPEB plan investments	(11,893)	(33,889)
Total current period recognition	\$ (896,850)	\$ (594,302)
Total OPEB expense	\$ 716,668	\$ 1,396,421

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)

The initial amortization period for the first two items noted above is based on expected future service lives while the difference between the projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the items above.

Differences between expected and actual experience for FYE	Initial Balance	Initial Amortization Period	Annual Recognition	Unamortized Balance as of June 30, 2020
June 30, 2017	\$ 2,821,128	4	\$ 705,282	\$ 0
June 30, 2018	\$ (2,223,963)	4	\$ (555,991)	\$ (555,990)
June 30, 2019	\$ (3,102,808)	4	\$ (775,702)	\$ (1,551,404)
June 30, 2020	\$ (973,636)	3	\$ (324,545)	\$ (649,091)

Changes in assumptions for FYE	Initial Balance	Initial Amortization Period	Annual Recognition	Unamortized Balance as of June 30, 2020
June 30, 2017	\$ 394,753	4	\$ 98,689	\$ 0
June 30, 2018	\$ 0	N/A	\$ 0	\$ 0
June 30, 2019	\$ (130,760)	4	\$ (32,690)	\$ (65,380)
June 30, 2020	\$ 0	N/A	\$ 0	\$ 0

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Deferred Outflows / (Inflows) of Resources (Continued)

Net Difference between projected and actual earnings in OPEB plan investments for FYE	Initial Balance	Initial Amortization Period	Annual Recognition	Unamortized Balance as of June 30, 2020
June 30, 2017	\$ (125,543)	5	\$ (25,109)	\$ (25,107)
June 30, 2018	\$ 22,428	5	\$ 4,486	\$ 8,970
June 30, 2019	\$ (66,330)	5	\$ (13,266)	\$ (39,798)
June 30, 2020	\$ 109,980	5	\$ 21,996	\$ 87,984

As of fiscal year ending June 30, 2020	Deferred Outflows	Deferred Inflows
Differences between expected and actual experience	\$ 0	\$ (2,756,485)
Changes in assumptions	0	(65,380)
Net difference between projected and actual earnings in OPEB plan investments	96,954	(64,905)
Total	\$ 96,954	\$ (2,886,770)

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2020 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

FYE	Balance
2021	\$ (1,700,818)
2022	\$ (1,119,724)
2023	\$ 8,730
2024	\$ 21,996
2025	\$ 0
Thereafter	\$ 0

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Sensitivity Results

The following presents the Net OPEB Liability as of June 30, 2020, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 7.25%.
- The 1% decrease in discount rate would be 6.25%.
- The 1% increase in discount rate would be 8.25%.

As of June 30, 2020	Net OPEB Liability
1% Decrease	\$ 20,494,721
Current Discount Rate	\$ 17,532,086
1% Increase	\$ 15,105,909

The following presents the Net OPEB Liability as of June 30, 2020, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 7.50%, decreasing to an ultimate rate of 4.50%.
- The 1% decrease in health care trend rates would assume an initial rate of 6.50%, decreasing to an ultimate rate of 3.50%.
- The 1% increase in health care trend rates would assume an initial rate of 8.50%, decreasing to an ultimate rate of 5.50%.

As of June 30, 2020	Net OPEB Liability
1% Decrease	\$ 14,809,666
Current Trend Rates	\$ 17,532,086
1% Increase	\$ 20,870,414

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Asset Information

Asset Breakdown		FY 2018/19		FY 2019/20
Assets				
Cash and deposits	\$	171,443	\$	459,612
Securities lending cash collateral		0		0
Total cash	\$	171,443	\$	459,612
Receivables				
Contributions	\$	0	\$	0
Accrued interest		14,097		12,546
Total receivables	\$	14,097	\$	12,546
Investments				
Fixed income	\$	1,418,855	\$	1,471,531
Equities		2,349,960		2,695,376
Mutual Funds		569,142		572,019
Total investments	\$	4,337,957	\$	4,738,926
Total Assets	\$	4,523,497	\$	5,211,084
Liabilities				
Payables				
Investment management fees	\$	0	\$	0
Securities lending expense		0		0
Total liabilities	\$	0	\$	0
Net Position Restricted to OPEB	\$	4,523,497	\$	5,211,084

GASB Disclosures

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Asset Information (Continued)

Asset Reconciliation	FY 2018/19	FY 2019/20
Additions		
Contributions Received		
Employer	\$ 1,575,235	\$ 1,320,000
Active employees	0	0
Total contributions	\$ 1,575,235	\$ 1,320,000
Investment Income		
Net increase in fair value of investments	\$ 255,096	\$ 119,475
Interest and dividends	95,587	114,649
Investment expense, other than from securities lending	0	0
Securities lending income	0	0
Securities lending expense	0	0
Net investment income	\$ 350,683	\$ 234,124
Total additions	\$ 1,925,918	\$ 1,554,124
Deductions		
Benefit payments	\$ 810,268	\$ 848,310
Administrative expenses	15,633	18,227
Other	0	0
Total deductions	\$ 825,901	\$ 866,537
Net increase in net position	\$ 1,100,017	\$ 687,587
Net position restricted to OPEB		
Beginning of year	\$ 3,423,480	\$ 4,523,497
End of year	\$ 4,523,497	\$ 5,211,084

Actuarially Determined Contributions

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

	FY 2019/20	FY 2020/21	FY 2021/22
Discount rate	7.25%	7.25%	7.25%
Payroll growth factor used for amortization	4.50%	4.50%	4.50%
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level % of Salary	Level % of Salary	Level % of Salary
Amortization period (years)	27	26	25
Actuarial accrued liability (AAL)	\$ 22,625,721	\$ 22,743,170	\$ 23,492,609
Actuarial value of assets	(4,523,497)	(5,211,084)	(5,690,973)
Unfunded AAL - beginning of year	\$ 18,102,224	\$ 17,532,086	\$ 17,801,636
Normal Cost	\$ 306,987	\$ 305,158	\$ 311,261
Amortization of Unfunded AAL	920,808	915,509	955,652
Total normal cost plus amortization	\$ 1,227,795	\$ 1,220,667	\$ 1,266,913
Interest to the end of year	89,015	88,498	91,851
Actuarially Determined Contribution - Preliminary	\$ 1,316,810	\$ 1,309,165	\$ 1,358,764
Expected benefit payments	1,120,623	1,184,535	1,324,225
Actuarially Determined Contribution - Final	\$ 1,316,810	\$ 1,309,165	\$ 1,358,764

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

Discussion of Discount Rates

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

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

For the current valuation:

1. The long-term expected rate of return on OPEB plan investment is 7.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.00%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2020 are summarized in the following table.
2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Asset Class	Target Allocation	L/T Expected Real ROR
Fixed income	38%	2.00%
Domestic equity	50%	7.25%
International equity	10%	7.75%
Cash	2%	0.00%
Total	100%	5.16%

Yield as of	July 1, 2019	June 30, 2020
Bond Buyer Go 20-Bond Municipal Bond Index	3.51%	2.21%
S&P Municipal Bond 20-Year High Grade Rate Index	2.79%	2.66%
Fidelity 20-Year Go Municipal Bond Index	3.13%	2.45%
Bond Index Range	2.79% - 3.51%	2.21% - 2.66%

3. The final equivalent single discount rate used for this year's valuation is 7.25%. This is based on the expectation that the Town of Cumberland will continue funding the Actuarially Determined Contribution annually.

Summary of Key Actuarial Assumptions

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

For a complete summary of actuarial methods and assumptions, refer to the GASB 74/75 actuarial valuation report for the fiscal year ending June 30, 2019.

Measurement Date

For fiscal year ending June 30, 2020, a June 30, 2020 measurement date was used.

Actuarial Valuation Date

July 1, 2019 with liabilities projected to the June 30, 2020 measurement date on a “no loss / no gain” basis. Liabilities as of July 1, 2019 are based on an actuarial valuation date of July 1, 2019 with no adjustments.

Discount Rate

7.25% as of July 1, 2019 and June 30, 2020 for accounting and funding disclosure purposes. Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

Payroll Growth

Sample payroll growth at select ages that includes wage inflation and merit / productivity increases are as shown below:

Age	Rates
25	6.0%
30	5.5%
35	5.0%
40	4.0%
45	3.0%
50	2.0%
55+	1.0%

Inflation Rate

2.0% per year

Cost Method

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

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

Summary of Key Actuarial Assumptions

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Health Care Trend Rates	FYE	Medical/Rx	Dental	Part B*
	2021	7.50%	3.75%	2.70%
	2022	7.00%	3.50%	3.75%
	2023	6.50%	3.25%	4.00%
	2024	6.00%	3.00%	4.25%
	2025	5.50%	3.00%	4.25%
	2026	5.00%	3.00%	4.25%
	2027+	4.50%	3.00%	4.25%

* Actual trend is used for Part B for FYE 2021 in place of an assumed 3.50% based on a Medicare Part B premium of \$148.50 effective January 1, 2021.

Actuary's Notes

Town of Cumberland Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2020

Interim year valuation results have been projected from the prior year's valuation with adjustments for actual premium increases for the Town's health plans from 2019/20 to 2020/21. Making this change resulted in a decrease in liabilities.

Premium Rates A comparison of the monthly premium rates effective July 1, 2019 and July 1, 2020 are as shown below.

Health Plans	Groups	Eff. 7/1/2019		Eff. 7/1/2020	
		Single	Family	Single	Family
Pre-65 Plans					
HDHP \$2,000 deductible	Actives	\$ 727.81	\$ 1,745.46	\$ 774.39	\$ 1,857.17
Healthmate \$0 deductible	Recruits	\$ 710.82	\$ 1,702.72	\$ 756.32	\$ 1,810.63
Classic Blue	Pre-65 retirees	\$ 725.12	\$ 1,871.22	\$ 771.53	\$ 1,990.97
HDHP \$3,000 deductible	Pre-65 retirees	\$ 566.01	\$ 1,460.54	\$ 602.38	\$ 1,554.01
Healthmate \$0 deductible	Pre-65 retirees	\$ 710.82	\$ 1,702.72	\$ 756.32	\$ 1,810.63
Post-65 Plans					
Medicare Plan C	Post-65 retirees	\$ 188.47	N/A	\$ 196.98	N/A
Medicare Rx Plan	Post-65 retirees	\$ 199.00	N/A	\$ 199.00	N/A
Dental Plans		\$ 29.24	\$ 94.37	\$ 29.18	\$ 94.26