



The Town of Middletown Postretirement Benefits Plan

Actuarial Valuation Report
for Fiscal Year Ending
June 30, 2021

Governmental Accounting Standards Board
Statements No. 74 & 75

December 10, 2021



December 10, 2021

Mr. Marc W. Tanguay
Finance Director
Town Hall
Town of Middletown
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GASB 74 & 75 Actuarial Valuation of the Town of Middletown's Postretirement Benefits Plan (the "Plan") for Fiscal Year Ending June 30, 2021

Dear Marc:

Buck was retained by the Town of Middletown ("Middletown") to complete this actuarial valuation report which provides information for Middletown's Postretirement Benefits Plan (the "Plan") for the fiscal year ending June 30, 2021. The purposes of the valuation are to measure the fiduciary net position of the Plan, to measure the accounting amounts required for the costs to maintain the Plan for Middletown and to provide reporting and disclosure information for financial statements of the Plan and of Middletown, as well as for governmental agencies and other interested parties. This valuation report contains information that is required for compliance with the Governmental Accounting Standards Board's Statement 74, Financial Reporting for Postemployment Benefit Plans Other than Pension Plans ("GASB 74") and Statement 75, Accounting and Financial Reporting for Postemployment Benefits Other than Pensions ("GASB 75").

Purpose of This Report

Middletown may use this report as a source of information for its financial statements and for the recommended Actuarially Determined Contribution ("ADC"). Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. This report should not be provided except in its entirety.

Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will accept no liability for any such statements made without prior review by Buck.

Future actuarial measurements may differ significantly from current measurements due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions, changes in assumptions, changes 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, applicable law or regulations. Retiree group benefit 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. An analysis of the potential range of such future differences other than the required disclosures related to the sensitivity to discount rate and healthcare cost trend rate assumptions is beyond the scope of this report.

Data, Assumptions, Methods and Plan Provisions

This valuation was performed using employee census data and plan provisions provided by Middletown personnel as of June 30, 2020. The participant data provided contained detailed census data for all active employees and retirees participating in the Middletown Postretirement Benefits Plan as of June 30, 2020. Although we did not audit the data, we reviewed the data for reasonableness and consistency with information provided for prior valuations. A detailed review of the data and its sources beyond that necessary to develop the analysis was not performed and is beyond the scope of the analysis. The results of the valuation are dependent on the accuracy of the data.

The entry age normal liabilities presented herein were determined as of June 30, 2020 using data as of that date provided by Middletown. The one-year roll-forward of the June 30, 2020 valuation results to June 30, 2021 was performed on a no gain/loss basis.

The assumptions, methods, and plan provisions used were the same as those described in the Middletown Postretirement Benefits Plan GASB 74 & 75 Valuation Report as of June 30, 2020 dated December 2, 2020, except for the following:

- The per capita cost assumptions were updated to reflect premiums effective July 1, 2021. This decreased the liability.
- Mortality improvement scale was updated to scale MP-2020 to reflect a more recent improvement scale published by the Society of Actuaries (SOA). This decreased the liability.
- The Municipal Bond 20-year Index Rate was updated from 2.66% to 2.18% based on the S&P Municipal Bond 20 Year High Grade Rate Index as of June 30, 2021. This had no impact on liabilities given that the discount rate used in the calculation of liabilities is the long term expected rate of return of the plan's assets (see Appendix A for more details).

The impact of health care reform under the Affordable Care Act ("ACA") has been evaluated and reflected in determining the liabilities and costs for the Plan. Please see Appendix E for a discussion of Health Care Reform (HCR) related provisions.

While the potential impact of the ongoing COVID-19 pandemic on costs and liabilities was considered, the results do not reflect any impact of this pandemic. The impact is expected to be limited given the offsetting effects of the decrease in utilization of non-critical services and the marginal increase in costs related to the testing and treatment of COVID-19 related care. In addition, any potential increase in future costs is expected to be limited to the short-term, and therefore should not have a material impact on the Plan's long-term healthcare costs. It is our understanding that the premium rates provided to us were properly adjusted to not reflect the unusually low claims costs in 2020, as we do not expect this to have significant long term implications. We will continue to monitor the emerging experience and consider any impacts of the virus in future measurements of the Plan's liabilities.

Use of Models

Actuarial Standard of Practice No. 56 (“ASOP 56”) provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Buck used the third-party software Proval in the performance of this valuation. The model is intended to calculate the liabilities associated with the provisions of the plan using data and assumptions as of the measurement date under the accounting standards specified in this report. Further, the model applies those accounting standards to the liabilities derived and other inputs, such as plan assets, to generate the exhibits found in this report. Buck has an extensive review process whereby the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other accounting outputs are similarly reviewed in detail and at a high level for accuracy, reasonability, and consistency with prior results. Buck also reviews the model when significant changes are made to the software. The review is performed by experts within the company who are familiar with applicable accounting rules as well as the manner in which the model generates its output.

Key Results

Middletown’s total OPEB liability of \$26,798,439 was calculated as of June 30, 2021 reflecting a no gain/loss roll forward of valuation results as of June 30, 2020 and the updated assumptions described above. After reflecting the Plan Fiduciary Net Position of \$22,204,091, the Net OPEB Liability as of June 30, 2021 is \$4,594,348. The total OPEB liability of \$27,799,802 as of June 30, 2020 was based on valuation results as of that date. The total OPEB liability decreased from June 30, 2020 to June 30, 2021 primarily due to favorable benefit payment and per capita claims cost experience, which was partially offset by the increase in liability due to the passage of time.

The ADC is decreasing from \$1,505,947 for the fiscal year ending June 30, 2021, to \$869,388 for the fiscal year ending June 30, 2022.

Actuarial Certification

The assumptions used for financial accounting purposes were selected by the plan sponsor with our advice. In our opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are reasonably related to the experience of the Plan and to reasonable long-term expectations. The cost results and actuarial exhibits presented in this report were determined on a consistent and objective basis in accordance with applicable Actuarial Standards of Practice and generally accepted actuarial procedures. To the best of our knowledge, the information fairly presents the actuarial position of Middletown’s Postretirement Benefits Plan in accordance with the requirements of GASB Statement No. 74 and 75 as of June 30, 2021.

It is important to note that the measurement of postretirement medical obligations is extremely sensitive to the assumptions chosen. The results presented above and in more detail in the next sections are based upon one set of reasonable assumptions. Other sets of equally reasonable assumptions can yield materially lesser or greater obligations.

This report represents a statement of actuarial opinion by the undersigned actuaries. The report was prepared under the supervision of Brian Hlava and Chris Lombardi, and the assumptions were set under the supervision of Prakash Sankaran. Brian Hlava is an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries. Chris Lombardi is a fellow of the Society of Actuaries

and a Member of the American Academy of Actuaries. Prakash Sankaran is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Both Brian and Chris have met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice and they are available to answer questions about these results.

Sincerely,



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Contents

GASB 74 & 75 Information	1
Funding Analysis (ADC Determination) for FYE 2022.....	7
Appendix A: Actuarial Assumptions and Methods	9
Appendix B: Summary of Plan Provisions	16
Appendix C: Summary of Employee Data	20
Appendix D: Required Schedules for GASB 75	21
Appendix E: Health Care Reform	22
Appendix F: Key Terms.....	24

GASB 74 & 75 Information

Method Used to Value Investments

Investments are reported at market value.

Plan Administration

Middletown administers the Plan, a single-employer defined benefit postretirement benefits plan. The Plan covers eligible retirees and disabled employees of the Middletown Town and Schools, as well as their spouses and survivors. Middletown officially set up an OPEB trust fund in June 2011 through its trustee, Citizens Bank. The trust fund is segregated and dedicated to providing OPEB benefits.

Plan Membership

Membership Status as of June 30, 2020	Count
Inactive plan members or beneficiaries currently receiving benefits	221
Inactive plan members entitled to but not yet receiving benefits	0
Active plan members	<u>349</u>
Total Participants	570

Net OPEB Liability

Components of the Net OPEB Liability	
Total OPEB Liability	\$ 26,798,439
Plan Fiduciary Net Position	<u>22,204,091</u>
Net OPEB Liability	\$ 4,594,348
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	82.86%

Actuarial Assumptions

Please see Appendix A of this report for a description of the actuarial assumptions.

Benefits Provided

Please see Appendix B of this report for a summary of the plan provisions.

Funded Status and Contributions

In recent years, Middletown has contributed at least the actuarially determined contribution ("ADC"). For the fiscal year ending June 30, 2021, Middletown contributed \$4,010,476 (net of retiree contributions). For purposes of this analysis, we have assumed Middletown will contribute the ADC for fiscal years ending 2022 and after.

The plan is funded by Middletown contributions and some current retiree contributions. Current retiree contributions are described in Appendix B.

Rate of Return

For the fiscal year ending June 30, 2021, the annual money-weighted rate of return on investments, net of investment expense, was 26.86%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Discount Rate

As part of our valuation work, we projected benefit payouts and the fiduciary net position of the plan for as long as benefits were expected to be paid to current active and inactive plan participants and their dependents. The amounts were compared for each year in the projection period. For each future period, the plan fiduciary net position is projected to be greater than the benefits to be made in that period. Thus, the valuation discount rate used in these calculations is the long term expected rate of return of the plan's assets.

Schedule of Required Supplementary Information

The following schedule outlines the required information pertaining to the Total OPEB Liability, the Plan Fiduciary Net Position and the Net OPEB Liability for the fiscal years ending June 30, 2020 and June 30, 2021:

Schedule of Changes in Net OPEB Liability and Related Ratios	FYE 2021	FYE 2020
<u>Total OPEB Liability</u>		
Service Cost	\$ 391,768	\$ 515,325
Interest	2,056,345	2,148,492
Changes of Benefit Terms	-	(87,428)
Differences Between Expected and Actual Experience	(415,551)	122,554
Changes of Assumptions	(1,458,153)	(2,202,682)
Benefit Payments	(1,575,772)	(1,625,989)
Net Change in Total OPEB Liability	\$ (1,001,363)	\$ (1,129,728)
Total OPEB Liability at Beginning of Year	\$ 27,799,802	\$ 28,929,530
Total OPEB Liability at End of Year (a)	\$ 26,798,439	\$ 27,799,802
<u>Plan Fiduciary Net Position</u>		
Contributions - Employer	\$ 4,010,476	\$ 4,418,603
Contributions - Employees	25,674	22,383
Net Investment Income	4,452,204	283,629
Benefit Payments	(1,575,772)	(1,625,989)
Administrative Expenses	(24,830)	(18,747)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 6,887,752	\$ 3,079,879
Plan Fiduciary Net Position Beginning of Year	\$ 15,316,339	\$ 12,236,460
Plan Fiduciary Net Position End of Year (b)	\$ 22,204,091	\$ 15,316,339
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	82.86%	55.10%
Net OPEB Liability End of Year ((a) - (b))	\$ 4,594,348	\$ 12,483,463
Covered Employee Payroll	\$ 26,443,469	\$ 29,376,747
Net OPEB Liability as a Percentage of Covered Employee Payroll	17.37%	42.49%

The below table outlines the components of the total OPEB expense for the fiscal years ending June 30, 2021 and June 30, 2020:

Components of OPEB Expense	FYE 2021	FYE 2020
Service Cost	\$ 391,768	\$ 515,325
Interest on the Total OPEB Liability and Net Cash Flow	2,056,345	2,148,492
Projected Earnings on OPEB Plan Investments	(1,238,407)	(1,020,698)
Current Period Effect of Benefit Changes	-	(87,428)
Current Period Difference Between Expected and Actual Experience	(44,828)	13,220
Current Period Effect of Changes in Assumptions	(157,298)	(237,614)
Current Period Difference Between Projected and Actual Investment Earnings	(642,759)	147,414
Member Contributions	(25,674)	(22,383)
Administrative Expenses	24,830	18,747
Current Period Recognition of Prior Years' Deferred Outflows of Resources	244,709	84,075
Current Period Recognition of Prior Years' Deferred Inflows of Resources	(965,383)	(727,769)
Total OPEB Expense	\$ (356,697)	\$ 831,381

The following tables depict the sensitivity of the Net OPEB Liability due to changes in both the discount rate and the healthcare cost trend rate which are required under GASB No. 75.

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate	1% Decrease	Current Discount Rate	1% Increase
Net OPEB Liability	\$ 7,430,421	\$ 4,594,348	\$ 2,182,817

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate	1% Decrease	Current Trend Rate	1% Increase
Net OPEB Liability	\$ 1,833,985	\$ 4,594,348	\$ 7,923,145

The following table outlines the employer contributions for the fiscal years ending June 30, 2021 and the four prior fiscal years. The actual contributions were provided by Middletown.

Schedule of Employer Contributions	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017
Actuarially Determined Contribution	\$ 1,505,947	\$ 1,971,037	\$ 2,011,938	\$ 2,415,706	\$ 2,174,483
Contributions Related to the Actuarially Determined Contribution	4,010,476	4,418,603	3,610,377	3,550,098	2,846,481
Contribution Deficiency (Excess)	\$ (2,504,529)	\$ (2,447,566)	\$ (1,598,439)	\$ (1,134,392)	\$ (671,998)
Covered Employee Payroll	\$ 26,443,469	\$ 29,376,747	\$ 24,564,252	\$ 25,008,014	\$ 22,684,805
Contribution as a Percentage of Covered Employee Payroll	15.17%	15.04%	14.70%	14.20%	12.55%

Deferred Inflows and Outflows for the Fiscal Year Ending June 30, 2021

Following are the details of the recognized and deferred outflows and inflows of resources.

The amounts due to changes in assumptions and differences between expected and actual experience are amortized over the average expected service of the covered population.

Amortization of Difference Between Expected and Actual Experience

Fiscal Year Ending	2018	2019	2020	2021	Outflows	Inflows	Total
Amount established	\$ (3,021,201)	\$ (312,797)	\$ 122,554	\$ (415,551)			
Recognition Period	7.34	7.34	9.27	9.27			
Amount recognized in FY							
2018	\$ (411,608)	\$ -	\$ -	\$ -	\$ -	\$ (411,608)	\$ (411,608)
2019	(411,608)	(42,615)	-	-	-	(454,223)	(454,223)
2020	(411,608)	(42,615)	13,220	-	13,220	(454,223)	(441,003)
2021	(411,608)	(42,615)	13,220	(44,828)	13,220	(499,051)	(485,831)
2022	(411,608)	(42,615)	13,220	(44,828)	13,220	(499,051)	(485,831)
2023	(411,608)	(42,615)	13,220	(44,828)	13,220	(499,051)	(485,831)
2024	(411,608)	(42,615)	13,220	(44,828)	13,220	(499,051)	(485,831)
2025	(139,945)	(42,615)	13,220	(44,828)	13,220	(227,388)	(214,168)
2026	-	(14,492)	13,220	(44,828)	13,220	(59,320)	(46,100)
2027	-	-	13,220	(44,828)	13,220	(44,828)	(31,608)
2028	-	-	13,220	(44,828)	13,220	(44,828)	(31,608)
2029	-	-	3,574	(44,828)	3,574	(44,828)	(41,254)
2030	-	-	-	(12,099)	-	(12,099)	(12,099)
Deferred Balance at 6/30							
2018	\$ (2,609,593)	\$ -	\$ -	\$ -	\$ -	\$ (2,609,593)	\$ (2,609,593)
2019	(2,197,985)	(270,182)	-	-	-	(2,468,167)	(2,468,167)
2020	(1,786,377)	(227,567)	109,334	-	109,334	(2,013,944)	(1,904,610)
2021	(1,374,769)	(184,952)	96,114	(370,723)	96,114	(1,930,444)	(1,834,330)
2022	(963,161)	(142,337)	82,894	(325,895)	82,894	(1,431,393)	(1,348,499)
2023	(551,553)	(99,722)	69,674	(281,067)	69,674	(932,342)	(862,668)
2024	(139,945)	(57,107)	56,454	(236,239)	56,454	(433,291)	(376,837)
2025	-	(14,492)	43,234	(191,411)	43,234	(205,903)	(162,669)
2026	-	-	30,014	(146,583)	30,014	(146,583)	(116,569)
2027	-	-	16,794	(101,755)	16,794	(101,755)	(84,961)
2028	-	-	3,574	(56,927)	3,574	(56,927)	(53,353)
2029	-	-	-	(12,099)	-	(12,099)	(12,099)
2030	-	-	-	-	-	-	-

Amortization of Changes in Assumptions

Fiscal Year Ending	2018	2019	2020	2021	Outflows	Inflows	Total
Amount established Recognition Period	\$ (2,007,827) 7.34	\$ 68,486 7.34	\$ (2,202,682) 9.27	\$ (1,458,153) 9.27			
Amount recognized in FY							
2018	\$ (273,546)	\$ -	\$ -	\$ -	\$ -	\$ (273,546)	\$ (273,546)
2019	(273,546)	9,331	-	-	9,331	(273,546)	(264,215)
2020	(273,546)	9,331	(237,614)	-	9,331	(511,160)	(501,829)
2021	(273,546)	9,331	(237,614)	(157,298)	9,331	(668,458)	(659,127)
2022	(273,546)	9,331	(237,614)	(157,298)	9,331	(668,458)	(659,127)
2023	(273,546)	9,331	(237,614)	(157,298)	9,331	(668,458)	(659,127)
2024	(273,546)	9,331	(237,614)	(157,298)	9,331	(668,458)	(659,127)
2025	(93,005)	9,331	(237,614)	(157,298)	9,331	(487,917)	(478,586)
2026	-	3,169	(237,614)	(157,298)	3,169	(394,912)	(391,743)
2027	-	-	(237,614)	(157,298)	-	(394,912)	(394,912)
2028	-	-	(237,614)	(157,298)	-	(394,912)	(394,912)
2029	-	-	(64,156)	(157,298)	-	(221,454)	(221,454)
2030	-	-	-	(42,471)	-	(42,471)	(42,471)
Deferred Balance at 6/30							
2018	\$ (1,734,281)	\$ -	\$ -	\$ -	\$ -	\$ (1,734,281)	\$ (1,734,281)
2019	(1,460,735)	59,155	-	-	59,155	(1,460,735)	(1,401,580)
2020	(1,187,189)	49,824	(1,965,068)	-	49,824	(3,152,257)	(3,102,433)
2021	(913,643)	40,493	(1,727,454)	(1,300,855)	40,493	(3,941,952)	(3,901,459)
2022	(640,097)	31,162	(1,489,840)	(1,143,557)	31,162	(3,273,494)	(3,242,332)
2023	(366,551)	21,831	(1,252,226)	(986,259)	21,831	(2,605,036)	(2,583,205)
2024	(93,005)	12,500	(1,014,612)	(828,961)	12,500	(1,936,578)	(1,924,078)
2025	-	3,169	(776,998)	(671,663)	3,169	(1,448,661)	(1,445,492)
2026	-	-	(539,384)	(514,365)	-	(1,053,749)	(1,053,749)
2027	-	-	(301,770)	(357,067)	-	(658,837)	(658,837)
2028	-	-	(64,156)	(199,769)	-	(263,925)	(263,925)
2029	-	-	-	(42,471)	-	(42,471)	(42,471)
2030	-	-	-	-	-	-	-

Amortization of Difference Between Projected and Actual Investment Earnings

Fiscal Year Ending	2018	2019	2020	2021	Outflows	Inflows	Total
Amount established Recognition Period	\$ 99,361 5.0	\$ 274,362 5.0	\$ 737,069 5.00	\$ (3,213,797) 5.00			
Amount recognized in FY							
2018	\$ 19,872	\$ -	\$ -	\$ -	\$ 19,872	\$ -	\$ 19,872
2019	19,872	54,872	-	-	74,744	-	74,744
2020	19,872	54,872	147,414	-	222,158	-	222,158
2021	19,872	54,872	147,414	(642,759)	222,158	(642,759)	(420,601)
2022	19,872	54,872	147,414	(642,759)	222,158	(642,759)	(420,601)
2023	-	54,872	147,414	(642,759)	202,286	(642,759)	(440,473)
2024	-	-	147,414	(642,759)	147,414	(642,759)	(495,346)
2025	-	-	-	(642,759)	-	(642,759)	(642,759)
Deferred Balance at 6/30							
2018	\$ 79,489	\$ -	\$ -	\$ -	\$ 79,489	\$ -	\$ 79,489
2019	59,617	219,490	-	-	279,107	-	279,107
2020	39,745	164,617	589,655	-	794,017	-	794,017
2021	19,872	109,745	442,241	(2,571,038)	571,858	(2,571,038)	(1,999,179)
2022	-	54,872	294,828	(1,928,278)	349,700	(1,928,278)	(1,578,578)
2023	-	-	147,414	(1,285,519)	147,414	(1,285,519)	(1,138,105)
2024	-	-	-	(642,759)	-	(642,759)	(642,759)
2025	-	-	-	-	-	-	-

Following is a summary of the schedule of deferred outflows and inflows of resources.

Future Years' Recognition of Deferred Outflows/Inflows			
Fiscal year	Deferred Outflows	Deferred Inflows	Total
2022	244,709	(1,810,268)	(1,565,559)
2023	224,837	(1,810,268)	(1,585,431)
2024	169,965	(1,810,268)	(1,640,304)
2025	22,551	(1,358,064)	(1,335,513)
2026	16,389	(454,232)	(437,843)
2027	13,220	(439,740)	(426,520)
2028	13,220	(439,740)	(426,520)
2029	3,574	(266,282)	(262,708)
2030	0	(54,570)	(54,570)
2031	0	0	0

Funding Analysis (ADC Determination) for FYE 2022

Funding Results Comparison*

The below table outlines the components for determined the Actuarially Determined Contribution (ADC) for the fiscal years ending June 30, 2021 and June 30, 2022:

Actuarially Determined Contribution	FYE 2022	FYE 2021
a) Actuarial Value of Assets	\$ 22,204,091	\$ 15,316,339
b) Actuarial Accrued Liability "AAL"		
Active Participants	8,879,386	8,144,781
Retired Participants	18,264,986	19,748,503
Total AAL	\$ 27,144,373	\$ 27,893,284
c) Unfunded Actuarial Accrued Liability "UAAL" [b - a]	4,940,282	12,576,945
d) Funded ratio [a / b]	81.80%	54.91%
e) Annual covered payroll	26,443,469	29,376,747
f) UAL as percentage of covered payroll	18.68%	42.81%
g) Normal Cost for fiscal year beginning on valuation date (with interest)	448,846	483,029
h) Amortization of UAAL for fiscal year beginning on valuation date	391,202	951,552
i) Interest to end of fiscal year	29,340	71,366
j) Actuarially Determined Contribution ("ADC")** for fiscal year beginning on valuation date [g + h + i]	\$ 869,388	\$ 1,505,947
k) Expected benefit payments for fiscal year beginning on valuation date	\$ 1,897,723	\$ 1,976,960

*The results above are not appropriate under the GASB 75 Accounting Standard and should not be reflected in the Town's financials.

Splits by Department

The below table outlines results presented above split by town department.

Number of Employees	Fire	Police	Public Works	Town Hall	Clerical & Custodial	Teachers & Administration	Total
Actives	33	37	17	33	33	196	349
Retirees and Spouses	76	92	1	1	6	45	221
Total	109	129	18	34	39	241	570

June 30, 2021 Actuarially Accrued Liability @ 7.5%	Fire	Police	Public Works	Town Hall	Clerical & Custodial	Teachers & Administration	Total
Actives	\$ 1,858,197	\$ 2,740,120	\$ 225,225	\$ 194,847	\$ 333,550	\$ 3,527,446	\$ 8,879,386
Retirees and Spouses	10,933,643	6,533,494	3,947	9,124	48,904	735,876	18,264,986
Total	\$ 12,791,839	\$ 9,273,613	\$ 229,172	\$ 203,971	\$ 382,454	\$ 4,263,322	\$ 27,144,373
Plan Assets	\$ 10,463,722	\$ 7,585,814	\$ 187,463	\$ 166,848	\$ 312,847	\$ 3,487,397	\$ 22,204,091
Unfunded Actuarially Accrued Liability (UAAL)	\$ 2,328,117	\$ 1,687,799	\$ 41,709	\$ 37,123	\$ 69,607	\$ 775,925	\$ 4,940,282

FYE 2021 Actuarially Determined Contribution @ 7.5%	Fire	Police	Public Works	Town Hall	Clerical & Custodial	Teachers & Administration	Total
Normal Cost	\$ 126,434	\$ 210,939	\$ 6,222	\$ 2,169	\$ 4,839	\$ 98,243	\$ 448,846
Amortization of UAAL	184,355	133,649	3,303	2,940	5,512	61,443	391,202
Interest	13,827	10,023	248	221	413	4,608	29,340
Total	\$ 324,616	\$ 354,611	\$ 9,773	\$ 5,330	\$ 10,764	\$ 164,294	\$ 869,388
Expected Pay-as-you-go Costs	\$ 942,691	\$ 625,787	\$ 2,240	\$ 13,590	\$ 46,812	\$ 263,378	\$ 1,894,498

Appendix A: Actuarial Assumptions and Methods

Actuarial Methods

Valuation Date

June 30, 2020.

Measurement Date

June 30, 2021.

Actuarial Cost Method

GASB 74 & 75: Entry Age Normal, Level Percent of Salary. Service Costs are attributed through all assumed ages of exit from active service.

Actuarially Determined Contribution: Projected Unit Credit. Service Costs are attributed through all ages until the participant becomes eligible for benefits.

Asset Valuation

Market Value.

Funding Method

In the past, Middletown has made contributions based on the ADC, contributing at least the ADC in recent years.

The ADC is equal to the sum of the normal cost plus an amortization of the Unfunded Actuarial Accrued Liability (UAAL). The amortization period used in calculating the ADC was established effective July 1, 2007, reflecting a 30-year period and an amortization payment that increases by 3.0% per year. The prior valuation used an amortization increase assumption of 4.0% per year. This was updated to be consistent with the 3.0% payroll growth rate. As of July 1, 2021, there are 16 years remaining in the amortization period, which was reflected in the ADC calculated for fiscal year ending June 30, 2022.

Unless otherwise specified, the funding valuation relies upon the same assumptions as are used in the GASB 74 & 75 valuations.

Miscellaneous

The valuation was prepared on an on-going plan basis. This assumption does not necessarily imply that an obligation to continue the plan actually exists.

Economic Assumptions

Discount Rate

7.50% per year, net of investment expenses; based on a projection of Middletown's future benefit payments compared to its fiduciary net position. Based on Middletown's current funding policy, Middletown is expected to cover the projected benefit payments through the projection period so the long-term asset rate of return can be used as the interest rate under GASB 74 & 75.

Long Term Expected Rate of Return

7.50% per annum, net of investment expenses and including inflation.

Municipal Bond 20-year Index Rate

2.18% for the measurement date of June 30, 2021, which is based on the S&P Municipal Bond 20-Year High Grade Rate Index as of June 30, 2021. The rate used for the previous measurement date of June 30, 2020 is 2.66%, which is based on the S&P Municipal Bond 20-Year High Grade Rate Index as of June 30, 2020.

Future Salary Increases

Compensation was assumed to increase at 3%. This is consistent with the rate used for the valuation of Middletown's pension plan.

Consumer Price Index

2.50%.

Benefit Related Assumptions

Assumed Trend

The combined effect of price inflation and utilization on gross eligible medical and prescription drug charges is according to the table below. The initial trend rate was developed using Buck's National Health Care Trend Survey. The survey gathers information of trend expectations for the coming year from various insurers and pharmacy benefit managers. These trends are broken out by drug and medical, as well as type of coverage (e.g. PPO, HMO, POS). We selected plans that most closely match Middletown's benefits to set the initial trend. The ultimate trend is developed based on a building block approach which considers CPI, GDP, and technology growth. The healthcare cost trend rates are shown below:

FYE	Pre-Medicare	Post-Medicare / Part B
2022	7.00%	5.75%
2023	6.75%	5.50%
2024	6.50%	5.25%
2025	6.25%	5.00%
2026	6.00%	4.75%
2027	5.75%	4.50%
2028	5.50%	4.50%
2029	5.25%	4.50%
2030	5.00%	4.50%
2031	4.75%	4.50%
2032	4.50%	4.50%
2033+	4.50%	4.50%

Dental costs are assumed to increase by 4.00% each year.

Retiree contribution trend: Same as medical trend.

Individual Initial Premium Thresholds (i.e., the caps) are assumed to continue to grow by 2.00% each year.

Rebates are assumed to remain flat.

Health Care Claim Cost

We understand that Middletown accesses health benefits through the Rhode Island Interlocal Risk Management Trust. However, we assumed that the provided rates represent the experience of Middletown's population. For valuation purposes, the cost of coverage for non-Medicare plans was based on the stated premium for individual coverage adjusted for the age of the participant, based on the actual age distribution of pre-65 active employees and retirees with medical coverage. The cost of coverage for Medicare plans was based on the stated premium adjusted for the age of the participant, based on the actual age distribution of post-65 active employees and retirees with medical coverage.

The age adjustments were made using the Age Related Morbidity discussed later in this section. Age Related Morbidity is not applied to dental rates.

Spouses are assumed to cost the same as a retiree with the same age and sex.

Employee cost sharing is based on current individual and family rates.

Dental Plan Costs

Dental plan costs are based on the provided individual premium. The premium is assumed to be self-supporting, with costs that do not vary by age.

Spouses are assumed to cost the same as the retiree.

Medicare Part B Premium

The premium amount for calendar year 2022 is \$170.10 per month. We trended it backwards 6 months to adjust it to reflect fiscal year 2022. This is the Medicare Part B premium in effect for most Medicare beneficiaries in 2022¹.

Child Coverage

Dependent children are assumed to be covered for as long as the spouse is covered and under age 65.

The cost for dependent children is assumed to be 20% of the cost of the spouse.

Employee Contributions

Fire employees' contributions to the trust are not directly reflected in the valuation. The Actuarial Determined Contribution amount is assumed to reflect overall contribution amounts for the fiscal year, with Middletown's required Normal Cost contribution to be directly reduced by any contributions made by the employees.

Plan Election

Retirees are assumed to remain in their chosen plan for the duration of their coverage or until age 65. For those groups that are eligible to receive coverage upon turning 65, we assume the retiree will be eligible for Medicare and elect the post-65 plans noted in the Plan Provisions.

For future Fire retirees, we assumed 100% would participate in the HSA plan, which is reasonable based on current retiree elections and guidance from Town personnel.

Administrative Expenses

It is our understanding that all administrative costs are reflected in the premiums provided.

¹ Other Medicare beneficiaries who will pay a higher Medicare Part B premium include those who do not have their Medicare Part B premium deducted from their Social Security checks, those who have taxable income of \$91,000 or more (\$182,000 or more if filing jointly with spouse), and new enrollees.

Age Related Morbidity

Per capita costs are adjusted to reflect expected cost differences due to age and gender. Age morbidity factors for pre-Medicare morbidity were developed from "Health Care Costs—From Birth to Death" sponsored by the Society of Actuaries and prepared by Dale H. Yamamoto (May 2013)¹. Table 4 from Mr. Yamamoto's study formed the basis of Medicare morbidity factors that are gender distinct and assumed a cost allocation of 60% for pharmacy, 20% for inpatient, 10% for outpatient, and 10% for professional services. Adjustments were made to Table 4 factors for inpatient costs at age 70 and below to smooth out what appears to be a spike in utilization for Medicare retirees gaining healthcare for the first time through Medicare. While such retirees were included in the study, their specific experience is not applicable for a valuation of an employer retiree medical plan where participants had group active coverage before retirement. Morbidity factors at sample ages are shown below:

Age	Male	Female
50	0.4602	0.5723
55	0.6038	0.6667
60	0.7779	0.7776
65	1.0000	0.9107
70	1.0894	1.0178
75	1.1700	1.1024
80	1.2283	1.1652
85	1.2372	1.2087
90	1.2143	1.2208

Morbidity is not applied to dental rates.

Demographic Assumptions

Participation Rates

Future retirees eligible for subsidized retiree coverage are assumed to elect medical (and dental, if applicable) coverage at retirement at the following percentages.

Group	Rate
Fire	Varies ²
Police	100%
Public Works	80%
Town Hall	80%
Clerical	90%
Custodial	90%
Teachers ¹	90%
Administration ¹	90%

¹ The remaining 10% of Teachers and Administration are assumed to elect the \$2,500 buyback option.

² The participation rate for Fire varies by year, based on the projected employee cost sharing percentages. Since future Fire retirees contribute 50% of the excess over the premium threshold, their

¹ <https://www.soa.org/resources/research-reports/2013/research-health-care-birth-death/>

employee cost sharing percentage is expected to increase each year. As a result, our assumed participation assumption decreases each year; sample rates are shown in the below table.

FYE	Rate
2021	99%
2026	96%
2031	94%
2036	92%
2041	91%
2046	90%

The various participation assumptions described above were derived using actuarial judgment based on observations of participation levels given contribution levels over a variety of plans.

Marital Status

80% of employees are assumed to have a covered spouse at retirement, except as noted. Teachers and Administrators are not assumed to cover their spouses as retirees must pay 100% of the stated premium for dependent coverage. Wives are assumed to be three years younger than their husbands. These assumptions were developed using actuarial judgment based on observations of dependent coverage over a variety of plans.

Mortality Rates

The mortality rates assumed for Fire and Police are as follows.

- PubS.H-2010 Headcount Weighted Public Safety Mortality, projected with mortality improvement scale MP-2020.

The mortality rates for Public Works, Town Hall, Clerical and Custodial are as follows.

- PubG.H-2010 Headcount Weighted General Mortality, projected with mortality improvement scale MP-2020.

The mortality rates assumed for Teachers and Administration are as follows.

- PubT.H-2010 Headcount Weighted Teachers Mortality, projected with mortality improvement scale MP-2020.

The mortality rates assumed for disabled members are as follows.

- Fire and Police: PubS.H-2010 Headcount Weighted Safety Disabled Mortality, projected with mortality improvement scale MP-2020.
- All other groups: PubT/G.H-2010 Headcount Weighted Teachers/General Disabled Mortality, projected with mortality improvement scale MP-2020.

These rates are consistent with the SOA study on public pension plan mortality published in January 2019 and the updated mortality improvement scale published in October 2020.

Withdrawal Rates

All employees are assumed to withdraw from active service based on the MERS General Employees' rate tables published in the 2019 ERSRI Experience Study.

Disability Rates

All employees are assumed to become disabled from active service based on the MERS General Employees' rate tables published in the 2019 ERSRI Experience Study.

Retirement Rates

The retirement rates assumed for Public Works, Town Hall, Clerical and Custodial are as follows.

- Employees are assumed to retire at a flat rate of 20% each year once eligible for an unreduced ERSRI pension benefit as determined by the earlier of (a) 65 & 30, (b) 64 & 31, (c) 63 & 32, (d) 62 & 33, or (e) the employee's RIRSA date.
- The 20% becomes 25% in the first year of eligibility if eligibility for an unreduced pension benefit occurs at age 65 or at 25 years of service.
- In some cases, the first eligibility date was furnished by ERSRI. In other cases, the RIRSA date was calculated by Buck based on the employee's RIRSA retirement schedule (1-4 for General employees). Employees who are Middletown pension plan participants are also assumed to follow the same decrement schedule as outlined in the 2015 Pension Settlement Agreement; the RIRSA date for these employees was calculated by Buck for the purpose of assigning retirement decrement rates consistent with the Town pension plan.
- Retirement rates are assumed to apply when the employee becomes eligible for both retiree medical coverage and for an unreduced pension. Otherwise, withdrawal rates are assumed to apply.

The retirement rates assumed for Police and Fire are as follows.

- Employees participating in the state pension plans are assumed to retire, become disabled, or withdraw from active service based on the MERS Police & Fire rate tables published in the 2019 ERSRI Experience Study.
- Retirement rates are assumed to apply when the employee becomes eligible for both retiree medical coverage and for an unreduced pension. Otherwise, withdrawal rates are assumed to apply.

The retirement rates assumed for Teachers and Administration are as follows.

- Employees are assumed to retire at a flat rate of 20% each year once eligible for an unreduced ERSRI pension benefit as determined by the earlier of (a) 65 & 30, (b) 64 & 31, (c) 63 & 32, (d) 62 & 33, or (e) the employee's RIRSA date, under the age of 67, and a flat rate of 35% if over age 67.
- The 20% or 35% becomes 30% in the first year of eligibility if eligibility for an unreduced pension benefit occurs at age 65 or at 25 years of service.
- In some cases, the first eligibility date was furnished by ERSRI. In other cases, the RIRSA date was calculated by Buck based on the employee's RIRSA retirement schedule (1-4 for General employees).
- Retirement rates are assumed to apply when the employee becomes eligible for both retiree medical coverage and for an unreduced pension. Otherwise, withdrawal rates are assumed to apply.

Appendix B: Summary of Plan Provisions

Eligibility

The retirement eligibility criteria for retiree health benefits are shown in the following table. Note: The below eligibility criteria apply to most active employees. *Certain active employees are subject to different eligibility criteria; we did not consider such special cases in this valuation.*

Group	Criteria	Retirement Eligibility
Fire	Hired after 7/1/2004	Service = 20
Fire	Hired after 7/1/2011	Age = 57 and Service = 30
Police	Hired before 7/1/2015	Service = 20
Police	Hired on/after 7/1/2015	Age = 50 and Service = 25
Public Works	n/a	Age = 60 and Service = 10, or Service = 30
Town Hall/Fire Civilian	n/a	Service = 25
School Clerical	n/a	Service = 15
School Custodial	n/a	Service = 15
Teachers	n/a	Age = 55 and Service = 15
Administration	n/a	Age = 55 and Service = 15

Additionally, an employee is eligible for retiree health benefits if he/she becomes disabled after attaining 10 years of service.

Medical Benefits

Subsidized medical benefits offered to current and future retirees, including the benefit term, are shown in the following table. We did not include benefits in which the retiree and/or spouse is required to fully cover the cost of coverage. Note: Certain individuals are subject to different benefit terms; we did not consider such special cases in this valuation.

Group	Criteria	Retiree Medical	Spouse Medical ²
Fire	n/a	Lifetime	Lifetime
Police	n/a	Lifetime	Lifetime
Public Works	n/a	Until age 70	None
Town Hall	n/a	Until age 65	Until age 65
School Clerical	n/a	Earlier of 5 years or age 65	Earlier of 3 years or age 65
School Custodial	n/a	Earlier of 3 years or age 65	Earlier of 1 years or age 65
Teachers ¹	n/a	Later of 10 years or age 65	None
Administration ¹	n/a	Later of 10 years or age 65	None

¹ If a retiree in one of these groups waives coverage, he/she is eligible to receive a fixed rebate of \$2,500 per year. For Teachers and Administration, the rebate is paid for seven years for regular retirees and for ten years for disabled retirees. This rebate is not available for spouses.

² Spouse coverage ends when the member coverage ends, including the member turning age 65 for Town hall, Clerical or Custodial. Additionally, no subsidized coverage is available for surviving spouses.

Dental Benefits

Subsidized dental benefits are offered for retirees in the Clerical and Custodial groups only. The length of coverage for these dental benefits is the same as for medical benefits.

Part B Benefits

Retirees in the Fire group, who retired on/after July 1, 2001 are eligible to receive reimbursement of Part B premiums if enrolled in Medicare Part B coverage upon submission to the Town per contract.

Premium Rates

The medical and dental premium rates for the plan year July 1, 2021 to June 30, 2022, applicable to Middletown's current and future retirees, are shown in the following table. For the non-Medicare plans, we also indicated the plan that the retirees will be enrolled in upon turning 65 years old. Future retirees are limited to select plans, as indicated in the Future Retirees column.

Group	Plan, Group #	Individual	Family	Plan once Age 65	Future Retirees
<i>Non-Medicare Plans</i>					
Fire Retiree	Classic, 0007	\$ 789.85	\$2,067.77	Classic, 0007	No
Fire Retiree	Classic, 0014	789.85	2,019.44	Classic, 0014	No
Fire/Fire Civilian	HDHP \$2/\$4, 0001	518.48	1,357.87	Plan 65 w/ MM, 0008	Yes
Fire Retiree	Healthmate, 0003	702.63	1,840.90	Plan 65 w/ MM, 0008	No
Fire/Fire Civilian	Healthmate, 0006	600.49	1,572.64	Plan 65 w/ MM, 0008	Yes
Fire Retiree	Healthmate, 0007	717.19	1,879.20	Plan 65 w/ MM, 0008	No
Fire Retiree	Healthmate, 0014	717.19	1,879.20	Healthmate, 0014	No
Police	HDHP \$1.5/\$3, 0004	590.59	1,548.34	Plan 65, 0010	Yes
Police	HDHP \$2/\$4, 0004	547.47	1,435.31	Plan 65, 0010	Yes
Police Retiree	Healthmate, 0001	748.02	1,961.29	Plan 65, 0010	No
Police Retiree	Healthmate, 0011	732.67	1,897.27	Plan 65, 0010	No
Public Works	Healthmate, 0016	639.55	n/a	Plan 65, 0010	Yes
Town Hall	Healthmate, 0017	654.86	1,716.43	n/a	Yes
Clerical/Custodial	Dental, 0012	31.77	94.14	n/a	Yes
Clerical/Custodial	Healthmate, 0011	713.46	1,869.34	n/a	Yes
Teachers	Classic, 0008	766.34	n/a	Plan 65 w/ MM, 0003	No
Teachers	Healthmate, 0008	640.05	n/a	Plan 65 w/ MM, 0003	Yes
Administration	Healthmate, 0010	713.46	n/a	Plan 65 w/ MM, 0003	Yes
<i>Medicare Plans</i>					
Fire	Plan 65C w/ MM, 0008	488.02	n/a	n/a	n/a
Fire	Plan 65G w/ MM 0008	467.38	n/a	n/a	n/a
Police	Plan 65C, 0010	189.70	n/a	n/a	n/a
Police	Plan 65G, 0010	169.06	n/a	n/a	n/a
Public Works	Plan 65C, 0010	189.70	n/a	n/a	n/a
Public Works	Plan 65G, 0010	169.06	n/a	n/a	n/a
Teachers/Admin	Plan 65C w/ MM, 0003	475.08	n/a	n/a	n/a
Teachers/Admin	Plan 65G w/MM, 0003	454.44	n/a	n/a	n/a

Per MACRA Legislation, retirees eligible for Medicare effective 1/1/2020 and after can no longer have a plan that covers the Part B deductible. Newly eligible employees must be enrolled in Plan 65G.

Retiree Contribution Percentages

The retiree contribution percentages, applicable to Middletown's current and future retirees, are shown in the following table. These percentages generally apply to the premium rates. Note: Certain individuals are subject to different retiree contribution percentages; we did not consider such special cases in this valuation.

Group	Criteria	Non-Medicare	Medicare
Fire	Retired < 3/1/2011	0%	0%
Fire	< 7/1/2014	20%	0%
Fire	>= 7/1/2014 PPO	50% ¹	0%
Fire	>= 7/1/2020 HDP	0%	0%
Police	Retired < 7/1/2014	0%	0%
Police HDP \$1500/3000	Retired >= 7/1/2014, Hired < 7/1/2018	2.5%	0%
Police HDP \$2000/4000	Hired >= 7/1/2018	20%	50%
Public Works	n/a	35%	50%
Town Hall/Fire Civilian	n/a	50%	n/a
School Clerical	n/a	20%	n/a
School Custodial	n/a	20%	n/a
Teachers/Admin ²	Retired <= 9/1/2014	3%/20%/50%	3%/20%/50%
Teachers/Admin ²	Retired < 7/1/2017	10%/20%/50%	10%/20%/50%
Teachers/Admin ²	Retired < 9/1/2018	12%/20%/50%	12%/20%/50%
Teachers/Admin ²	Retired >= 9/1/2018	20%/20%/20%	20%/20%/20%

¹ This contribution percentage applies to the excess of the premium above a cap. For FYE 2022, the cap is \$5,451 for individual coverage and \$14,272 for family coverage for the PPO. This cap is scheduled to increase at 2% per annum.

² x%/y%/z% means x% for first seven years, y% for next three years, z% afterwards until age 65 or 10th anniversary whichever occurs first as defined in contract or until 10th year anniversary of retirement.

Active Contributions

All active fire fighters are required to contribute 1.5% of their base pay via payroll deduction to the OPEB trust fund.

Negotiations (Municipal)

The DPW Union is still in negotiations for a contract to commence retroactively from July 1, 2021.

Other union contracts which are publicly provided on the Town's website expire as follows:

- Town NEARI contract June 30, 2022
- Library NEARI contract June 30, 2022
- Fire IAFF Local 1933 June 30, 2023
- Police FOP Lodge 21 June 30, 2024

Negotiations (Teachers and Administration)

The Teachers and Administration group completed negotiations for a one year extension of the contract expiring August 31, 2021. It is our understanding the plan provisions for this group were previously changed as follows:

- All teachers and administrators who notify of retirement after August 31, 2018 shall pay 20% of the cost of medical coverage.
- All retired teachers who receive retiree coverage through a spouse or other means of coverage receive a rebate of \$2,500 per year for years 1 through 7 of retirement.
- All teachers and administrators who notify of retirement after July 1, 2020 have the following healthcare benefit based on their credited years of service (“YOS”) as of July 1, 2020.

Years of Service as of July 1, 2020	Postretirement Healthcare Benefit Eligibility
19.5 YOS or more	10 years of benefits
9.5 – 19.5 YOS	9 years of benefits
3.5 – 9.5 YOS	8 years of benefits
Less than 3.5 YOS	A maximum of 5 years or until age 65, whichever comes first

- Individuals hired on or after July 1, 2020 shall receive a maximum of three years of benefits or until age 65, whichever comes first. This provision does not impact the results provided in this letter because it will only affect employees hired on or after that date.
- Any postretirement healthcare benefit applicable to spouses shall run concurrent with, and not exceed, the time of the retiree’s benefit.

There were no changes in the benefits for this one year extension. At this time, Council 94, the Custodial Maintenance Group, have not completed negotiations for a successor agreement and benefits are following the expired contract.

Future Negotiations

The Town is in negotiations with the NEARI Town union for the period commencing July 1, 2022.

The Library Trustee board is in negotiations with the NEARI Library union for the period commencing July 1, 2022.

Middletown Public School will be in negotiations for contracts starting September 1, 2022.

These negotiations have not been reflected in this valuation.

Appendix C: Summary of Employee Data

Summary of Participant Data

Census data as of June 30, 2020.

Membership Status as of June 30, 2020	Count
Inactive plan members or beneficiaries currently receiving benefits	221
Inactive plan members entitled to but not yet receiving benefits	0
Active plan members	<u>349</u>
Total Participants	570

Number of Employees	Fire	Police	Public Works	Town Hall	Clerical & Custodial	Teachers & Administration	Total
Actives							
Count	33	37	17	33	33	196	349
Average Age	39.7	37.0	45.3	52.4	51.7	48.3	46.8
Average Service	9.3	9.7	15.0	14.7	17.1	15.7	14.5
Retirees							
Count	41	49	1	1	4	45	141
Average Age	65.6	65.7	65.3	63.4	63.5	66.3	65.8
Spouses							
Count	35	43	-	-	2	-	80
Average Age	62.7	62.2	-	-	-	-	60.9
Total							
Count	109	129	18	34	39	241	570

Appendix D: Required Schedules for GASB 75

Schedule of Changes in Net OPEB Liability and Related Ratios	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017
Total OPEB Liability					
Service Cost	\$ 391,768	\$ 515,325	\$ 486,018	\$ 478,012	\$ 506,972
Interest	2,056,345	2,148,492	2,093,795	2,380,004	2,296,966
Changes of Benefit Terms	-	(87,428)	-	-	-
Differences Between Expected and Actual Experience	(415,551)	122,554	(312,797)	(3,021,201)	-
Changes of Assumptions	(1,458,153)	(2,202,682)	68,486	(2,007,827)	-
Benefit Payments	(1,575,772)	(1,625,989)	(1,644,695)	(1,661,234)	(1,674,163)
Net Change in Total OPEB Liability	\$ (1,001,363)	\$ (1,129,728)	\$ 690,807	\$ (3,832,246)	\$ 1,129,775
Total OPEB Liability at Beginning of Year	\$ 27,799,802	\$ 28,929,530	\$ 28,238,723	\$ 32,070,969	\$ 30,941,194
Total OPEB Liability at End of Year (a)	\$ 26,798,439	\$ 27,799,802	\$ 28,929,530	\$ 28,238,723	\$ 32,070,969
Plan Fiduciary Net Position					
Contributions - Employer	\$ 4,010,476	\$ 4,418,603	\$ 3,610,377	\$ 3,550,098	\$ 2,846,481
Contributions - Employees	25,674	22,383	22,283	21,358	-
Net Investment Income	4,452,204	283,629	528,666	520,405	726,504
Benefit Payments	(1,575,772)	(1,625,989)	(1,644,695)	(1,661,234)	(1,674,163)
Administrative Expenses	(24,830)	(18,747)	(21,995)	(28,500)	(32,580)
Other	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	\$ 6,887,752	\$ 3,079,879	\$ 2,494,636	\$ 2,402,127	\$ 1,866,242
Plan Fiduciary Net Position Beginning of Year	\$ 15,316,339	\$ 12,236,460	\$ 9,741,824	\$ 7,339,697	\$ 5,743,455
Plan Fiduciary Net Position End of Year (b)	\$ 22,204,091	\$ 15,316,339	\$ 12,236,460	\$ 9,741,824	\$ 7,339,697
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	82.86%	55.10%	42.30%	34.50%	22.89%
Net OPEB Liability End of Year ((a) - (b))	\$ 4,594,348	\$ 12,483,463	\$ 16,693,070	\$ 18,496,899	\$ 24,731,272
Covered Employee Payroll	\$ 26,443,469	\$ 29,376,747	\$ 24,564,252	\$ 25,008,014	\$ 22,684,805
Net OPEB Liability as a Percentage of Covered Employee Payroll	17.37%	42.49%	67.96%	73.96%	109.02%

Schedule of Employer Contributions	FYE 2021	FYE 2020	FYE 2019	FYE 2018	FYE 2017
Actuarially Determined Contribution	\$ 1,505,947	\$ 1,971,037	\$ 2,011,938	\$ 2,415,706	\$ 2,174,483
Contributions Related to the Actuarially Determined Contribution	4,010,476	4,418,603	3,610,377	3,550,098	2,846,481
Contribution Deficiency (Excess)	\$ (2,504,529)	\$ (2,447,566)	\$ (1,598,439)	\$ (1,134,392)	\$ (671,998)
Covered Employee Payroll	\$ 26,443,469	\$ 29,376,747	\$ 24,564,252	\$ 25,008,014	\$ 22,684,805
Contribution as a Percentage of Covered Employee Payroll	15.17%	15.04%	14.70%	14.20%	12.55%

Appendix E: Health Care Reform

The Patient Protection and Affordable Care Act (PPACA), was signed March 23, 2010, with further changes enacted by the Health Care and Education Affordability Reconciliation Act (HCEARA), signed March 30, 2010. This valuation uses various assumptions that were modified based on considerations under Health Care Reform legislation. This Section discusses particular legislative changes that were reflected in our assumptions. We have not identified any other specific provision of Health Care Reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we continue to monitor any potential impacts.

Employer Mandate

Health Care Reform includes various provisions mandating employer coverage for active employees, with penalties for non-compliance. Those provisions do not directly apply to the postemployment coverage included in this valuation.

Elimination of Annual or Lifetime Maximums

Health Care Reform provides that annual or lifetime maximums have to be eliminated for all “essential services”. We assume that current premium rates already reflect the required elimination of any historic maximums.

Minimum Loss Ratio

Health Care Reform includes a provision that provides that medical benefit costs paid under large group health insurance insured premiums must be at least 85% of the premiums. It is anticipated that this provision will not have any significant impact on benefits or premium levels.

Expansion of Child Coverage to Age 26

Health Care Reform mandates that coverage be offered to any child, dependent or not, through age 26, consistent with coverage for any other dependent. We have reflected the cost of child coverage by including a load for dependent children. Specifically, dependent children are assumed to be covered for as long as the spouse is covered and under age 65. The cost for dependent children is assumed to be 20% of the cost of the spouse.

High Cost Plan Excise Tax (“Cadillac Tax”)

The Further Consolidated Appropriations Act repealed several ACA taxes, including the High Plan Cost Excise Tax (a.k.a. “Cadillac Tax”). We have removed any potential impacts of these taxes from the liabilities beginning with the June 30, 2020 measurement.

Individual Mandate

The Tax Cuts and Jobs Act passed in December 2017 included the elimination of the individual mandate penalty and changed the inflation rate measure for purposes of determining the limits for the High Cost Excise Tax to use chained CPI. It is our understanding the law does not directly impact other provisions of the ACA. While the nullification of the ACA’s individual mandate penalty does not directly impact employer group health plans, it could contribute to the destabilization of the individual market and increase the number of uninsured. Such destabilization could translate to increased costs for employers. We have considered this when setting our healthcare cost trend assumptions and will continue to monitor this issue.

Other Revenue Raisers

The Health Care Reform includes a variety of other revenue raisers that involve additional costs on providers (such as medical device manufacturers) and insurers. We considered these factors when developing the trend assumptions.

Other

We have not identified any other specific provision of health care reform that would be expected to have a significant impact on the measured obligation. We will continue to monitor any potential impacts of future legislation regarding health care.

Appendix F: Key Terms

Summary of Key Accounting Terms

Actuarially determined contribution

A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial present value of projected benefit payments

Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

Actuarial valuation

The determination, as of a point in time (the actuarial valuation date), of the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.

Actuarial valuation date

The date as of which an actuarial valuation is performed.

Ad hoc postemployment benefit changes

Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.

Automatic postemployment benefit changes

Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the OPEB plan) or to another variable (such as an increase in the consumer price index).

Covered-employee payroll

The payroll of employees that are provided with OPEB through the OPEB plan.

Discount rate

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

- a) The actuarial present value of benefit payments projected to be made in future periods in which (1) the amount of the OPEB plan's fiduciary net position is projected (under the requirements of GASB Statement No. 75) to be greater than the benefit payments that are projected to be made in that period and (2) OPEB plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on OPEB plan investments
- b) The actuarial present value of projected benefit payments not included in (a), calculated using a yield or index rate 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).

For defined benefit OPEB that is provided through an OPEB plan that is not administered through a trust that meets the criteria in paragraph 4 of GASB Statement No. 75, the discount rate is equal to the municipal bond rate.

Entry age actuarial cost method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the Actuarial accrued liability.

Healthcare cost trend rates

The rates of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

Inactive employees

Individuals no longer employed by an employer in the OPEB plan, or the beneficiaries of those individuals. Inactive employees include individuals who have accumulated benefits under the terms of an OPEB plan but are not yet receiving benefit payments and individuals currently receiving benefits.

Measurement period

The period between the prior and the current measurement dates.

Net OPEB liability

The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit OPEB plan that is administered through a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

Other postemployment benefits (OPEB)

Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.

Projected benefit payments

All benefits (including refunds of employee contributions) estimated to be payable through the OPEB plan (including amounts to be paid by employers or non-employer contributing entities as the benefits come due) to current active and inactive employees as a result of their past service and their expected future service.

Real rate of return

The rate of return on an investment after adjustment to eliminate inflation.

Service costs

The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

Total OPEB liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB Statement No. 75. The total OPEB liability is the liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit OPEB plan that is not administered through a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.