# Town of Smithfield Postretirement Benefits Plan

**Financial Disclosure Information** 

in accordance with Statement of Governmental Accounting Standards Board No. 75

for the period beginning July 1, 2019 and ending June 30, 2020

Prepared By:

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December, 2020

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#### I. INTRODUCTION

The purpose of this report is to present certain financial information relative to the The Town of Smithfield Postretirement Benefit Plan in accordance with the Statement of Governmental Accounting Standards Board No. 75 (GASB 75).

The report presents the disclosure results for the Town of Smithfield Postretirement Benefit Plan for the Fiscal Year ending June 30, 2020 based on the valuation as of July 1, 2020. This report includes the determination of the Plan's current discount rate, Net OPEB Liability. OPEB expense, and balances of deferred inflows and outflows.

This report was based on information submitted to our firm by the Town of Smithfield in the form of census data, substantive plan provisions, medical premium rates, asset/benefit payment information, and other ancillary material pertaining to the plan.

Actuarial computations under GASB 75 are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with my understanding of GASB 75 and are in conformity with applicable actuarial standards of practice. To the best of my knowledge, the information contained in this report was determined in accordance with GASB 75. In addition, no relationship exists with the plan or plan sponsor that impairs the objectivity of our work.

I meet the GASB 75 Qualification Standards of the American Academy of Actuaries to render the actuarial opinions included in this report, based upon my education, experience and continuing education.

Simon R. Encarnacion, F.S.A., E.A.

Simon R. Emanación

Consulting Actuary

12/15/2020

Date

#### II. DESCRIPTIVE INFORMATION

Plan Description: Single-employer, defined benefit postretirement health and dental insurance

program.

Groups Covered: Town, Police, Fire, and School employees.

Eligibility: Group Eligibility

Town

Service Retirement Age 58 with 20 years of service.

Disability Retirement No service requirement.

**Police and Fire** 

Service Retirement 20 years of service.

Disability Retirement No service requirement.

**School** 

Hired before

6/20/1989 Age 60 with 15 years of service. Hired on or after Age 60 with 20 years of service: or

6/20/1989 28 years of service with at least 15 years with

Smithfield

Benefit Formula: Group Contribution Structure

Town

Non-Union hired after

12/31/1988 Participants and Spouses contribute 100%.

Other Town

Employees Participants and Spouses are non-contributory. **Police and Fire** Participants and Spouses are non-contributory.

**School** 

Hired before If either (1) age 60 with 20 years of service: or (2) 6/20/1989 28 years of service with at least 15 years with Smithfield, participant and spouse are non-

contributory.

Otherwise (i.e., 60/15 but not 60/20, or service <28), plan contribution is frozen at the date of

retirement.

Hired on or after 6/20/1989 but before

7/1/1992

If 28 years of service with at least 15 years with

Smithfield, participant is non-contributory.

Otherwise (i.e., 60/20 and service <28), 50%

contribution.

Hired on or after

7/1/1992 Plan Contributes a maximum of \$5,000 annually.

Significant Events: None.

#### III. ACTUARIAL METHODS

Measurement Date: July 1, 2019 (for purposes of determining the

OPEB Expense) and June 30, 2020 (for purposes

of Net OPEB Liability)

Actuarial Cost Method:

Costs have been computed in accordance with the Entry Age Actuarial Cost Method. The service cost is the sum of the service costs for all participants. For an active participant, the individual service cost is (a) the present value of future benefits as of the participant's entry age divided by (b) the present value of future compensation as of the participant's entry age multiplied by (c) current compensation. For other than a current active participant, the service cost equals \$0.

The accrued liability is the sum of the individual accrued liabilities for all participants. The individual accrued liability is equal to (d) the present value of future benefits less (e) the service cost accrual rate multiplied by (f) the present value of future compensation.

Asset Valuation Method:

The Fiduciary Net Position is based on the fair market value of assets as of the measurement date.

Census Information:

Census data and premium information as of July 01, 2018 was used to calculate the OPEB Expense. Census data and premiums information as of July 1, 2020 was used to determine the Total OPEB Liability to June 30, 2020.

Net OPEB Liability at Fiscal Year End: Based on actual benefit payments, actual contributions to the Plan trust (if applicable), and estimated implicit rate subsidy, for the fiscal year ending June 30, 2020.

#### IV. ACTUARIAL ASSUMPTIONS

Actuarial assumptions are estimates as to the occurrence of future events impacting the costs of the plan such as mortality rates, withdrawal rates, medical trend rates, retirement ages, rates of investment earnings, etc. The assumptions have been chosen to anticipate the long-term experience of the plan.

#### **Assumptions for the Current Valuation**

*Discount Rate:* 2.68% as of 6/30/2020

2.81% as of 6/30/2019 3.00% as of 6/30/2018

*Index Rate:* 2.66% as of 6/30/2020

2.79% as of 6/30/2019 2.98% as of 6/30/2018

Long Term Rate of Return on 7.01%

Healthy Mortality: 2010 Public sector Retirement Plans Mortality table for

General/Safety/Teachers employee populations with MP-2020 as of

6/30/2020

2010 Public sector Retirement Plans Mortality table for

General/Safety/Teachers employee populations with MP-2018 as of

0.18%

0.29%

0.41%

0.18%

0.29%

0.41%

1.82%

1.82%

1.82%

2.12%

2.12%

2.12%

6/30/2019

50

55

60

Disabled Rates: **ESRI** General **Teachers** Fire Hancock Service Male Female Male Female <20 YOS 20+ YOS 20 0.04% 0.09% 0.03% 0.03% 0.30% 0.26% 25 0.09% 0.04% 0.03% 0.03% 0.30% 0.26% 30 0.03% 0.03% 0.33% 0.11% 0.04% 0.39% 35 0.14% 0.06% 0.04% 0.44% 0.04% 0.51% 40 0.21% 0.08% 0.06% 0.06% 0.77% 0.66% 45 0.34% 0.14% 0.10% 0.10% 1.26% 1.08%

0.23%

0.38%

0.54%

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0.58%

0.96%

1.34%

# IV. ACTUARIAL ASSUMPTIONS (cont'd)

Turnover:		Town	Police and Fire	School
	Service	Employees	Employees	Employees
	0	17.50%	10.00%	18.00%
	1	11.88%	4.73%	12.00%
	2	10.14%	3.69%	8.00%
	3	8.61%	3.08%	6.48%
	4	7.29%	2.65%	4.82%
	5	6.15%	2.32%	3.83%
	6	5.18%	2.04%	3.17%
	7	4.36%	1.81%	2.70%
	8	3.69%	1.61%	2.36%
	9	3.14%	1.43%	2.09%
	10	2.71%	1.28%	1.87%
	11	2.37%	1.13%	1.70%
	12	2.13%	1.00%	1.55%
	13	1.95%	0.88%	1.43%
	14	1.83%	0.77%	1.32%
	15	1.75%	0.67%	1.23%
	16	1.70%	0.57%	1.15%
	17	1.66%	0.48%	1.08%
	18	1.62%	0.39%	1.02%
	19	1.57%	0.00%	0.96%
	20	1.49%	0.00%	0.91%
	21	1.36%	0.00%	0.87%
	22	1.18%	0.00%	0.83%
	23	0.92%	0.00%	0.79%
	24	0.58%	0.00%	0.76%
	25+	0.00%	0.00%	0.00%

### IV. ACTUARIAL ASSUMPTIONS (cont'd)

#### Retirement:

For Town Employees: A flat 25% per year retirement probability for members eligible for unreduced retirement. A 50% retirement probability at first eligibility will be only applied if they have reached age 65 or with at least 25 years of service.

For Police and Fire Employees: A All Members are assumed to retire upon reaching age 65 with at least 10 years of service. Rates vary based on service as follows.

Service	With Optional 20 year Retirement Election	Without Optional 20 year Retirement election.
20	12.00%	
21	10.00%	
22	10.00%	
23	10.00%	
24	12.00%	
25	14.00%	50.00%
26	16.00%	16.00%
27	18.00%	18.00%
28	20.00%	20.00%
29	20.00%	20.00%
30+	35.00%	35.00%

For School Employees: A flat 25% per year retirement probability for members eligible for unreduced retirement. A 60% retirement probability at first eligibility will be only applied if they have reached age 65 or with at least 25 years of service.

#### IV. ACTUARIAL ASSUMPTIONS (cont'd)

Participation: Based on experience for similar clients, for non-School non-union

employees hired after December 31, 1989, 50% for all future retirees. For all other non-School employees, 100% for all future retirees. For School employees, 100% for future retirees expecting to receive full subsidy and 75% for future retirees without full subsidy. Future School retirees are expected to elect same medical plan

coverage as their current active medical plan.

Current Health Care Monthly Premium Rates: Please Refer to Section XI.

Health Care Cost Trend Rates: 6.5% per year graded down by the Getzen model to an ultimate rate

of 4.04% per year after 60 years.

Marital Status: 80% of future male retirees and 60% of future female retirees are

assumed to be married and elect family medical coverage. Female spouses are assumed to be 3 years younger than males. Actual spousal information is used for current retirees if available.

Aging Assumption: 3.50%

Salary Increases:

	Town	Police and Fire	School
Service	Employees	Employees	Employees
0	7.50%	14.00%	13.50%
1	6.50%	13.00%	12.50%
2	6.25%	11.00%	9.75%
3	6.00%	8.00%	9.00%
4	5.75%	6.50%	8.50%
5	5.50%	7.00%	8.50%
6	4.75%	4.50%	8.00%
7	4.25%	4.50%	7.75%
8	4.00%	4.00%	7.50%
9	4.00%	4.00%	7.50%
10+	3.75%	3.00%	3.50%

# **V. DETERMINATION OF DISCOUNT RATE**

## A. Determination of Discount Rate as of June 30, 2020 - Analysis of Crossover Point

				Projected Benefit Payments		Actua	rial Present Value of Ber	nefit Payments
Plan		Projected		"Funded"	"Unfunded"	Present Value	Present Value	Present Value
Year	Total	Market	Projected	Portion of	Portion of	of "Funded"	of "Unfunded"	of All Benefit
Valuation	Prior Year	Value of	Benefit	Benefit	Benefit	Portion	Portion	Payments - Single Rate
6/30	Contributions	<u>Assets</u>	Payments Payments	<b>Payments</b>	<u>Payments</u>	7.01%	2.66%	2.68%
2020	1,643,179	4,302,618	1,643,179	1,643,179	0	1,535,538	0	1,600,293
2021	1,830,579	2,961,053	1,830,579	1,830,579	0	1,598,600	0	1,736,271
2022	2,040,347	1,338,043	2,040,347	1,338,043	702,304	1,091,936	649,114	1,884,723
2023	2,300,464	0	2,300,464	0	2,300,464	0	2,071,145	2,069,538
2024	2,511,805	0	2,511,805	0	2,511,805	0	2,202,823	2,200,688
2025	2,740,212	0	2,740,212	0	2,740,212	0	2,340,866	2,338,144
2026	3,072,426	0	3,072,426	0	3,072,426	0	2,556,658	2,553,189
2027	3,313,448	0	3,313,448	0	3,313,448	0	2,685,778	2,681,614
2028	3,489,750	0	3,489,750	0	3,489,750	0	2,755,389	2,750,584
2029	3,641,526	0	3,641,526	0	3,641,526	0	2,800,727	2,795,300
2030	3,730,946	0	3,730,946	0	3,730,946	0	2,795,150	2,789,193
2031	3,781,426	0	3,781,426	0	3,781,426	0	2,759,564	2,753,149
2032	3,809,849	0	3,809,849	0	3,809,849	0	2,708,266	2,701,446
2033	4,004,295	0	4,004,295	0	4,004,295	0	2,772,735	2,765,216
2034	4,120,917	0	4,120,917	0	4,120,917	0	2,779,553	2,771,478
2035	4,200,958	0	4,200,958	0	4,200,958	0	2,760,121	2,751,569
2036	4,334,902	0	4,334,902	0	4,334,902	0	2,774,328	2,765,196
2037	4,593,333	0	4,593,333	0	4,593,333	0	2,863,553	2,853,573
2038	4,738,771	0	4,738,771	0	4,738,771	0	2,877,675	2,867,090
2039	4,731,225	0	4,731,225	0	4,731,225	0	2,798,649	2,787,813
2040	4,963,088	0	4,963,088	0	4,963,088	0	2,859,733	2,848,109
2041	4,849,553	0	4,849,553	0	4,849,553	0	2,721,911	2,710,321
2042	4,821,026	0	4,821,026	0	4,821,026	0	2,635,788	2,624,056
2043	4,995,316	0	4,995,316	0	4,995,316	0	2,660,313	2,647,958
2044	5,058,057	0	5,058,057	0	5,058,057	0	2,623,930	2,611,237
2045	5,185,413	0	5,185,413	0	5,185,413	0	2,620,297	2,607,117
2046	4,986,892	0	4,986,892	0	4,986,892	0	2,454,686	2,441,864
2047	5,307,845	0	5,307,845	0	5,307,845	0	2,544,972	2,531,188
2048	5,171,614	0	5,171,614	0	5,171,614	0	2,415,403	2,401,855
2049	4,823,100	0	4,823,100	0	4,823,100	0	2,194,262	2,181,531
2050	4,395,275	0	4,395,275	0	4,395,275	0	1,947,812	1,936,135

2051	3,927,611	0	3,927,611	0	3,927,611	0	1,695,462	1,684,972
2052	3,919,707	0	3,919,707	0	3,919,707	0	1,648,208	1,637,692
2053	3,840,562	0	3,840,562	0	3,840,562	0	1,573,084	1,562,744
2054	3,714,524	0	3,714,524	0	3,714,524	0	1,482,037	1,472,010
2055	3,608,803	0	3,608,803	0	3,608,803	0	1,402,548	1,392,789
2056	3,713,463	0	3,713,463	0	3,713,463	0	1,405,829	1,395,776
2057	3,271,442	0	3,271,442	0	3,271,442	0	1,206,400	1,197,541
2058	2,898,200	0	2,898,200	0	2,898,200	0	1,041,068	1,033,223
2059	2,236,444	0	2,236,444	0	2,236,444	0	782,542	776,494
2060	1,867,431	0	1,867,431	0	1,867,431	0	636,492	631,450
2061	1,479,948	0	1,479,948	0	1,479,948	0	491,353	487,366
2062	839,855	0	839,855	0	839,855	0	271,613	269,357
2063	765,148	0	765,148	0	765,148	0	241,040	238,992
2064	513,618	0	513,618	0	513,618	0	157,610	156,240

4,226,073 +

87,835,791 =

92,061,864

<sup>\*</sup> The 2.66% discount rate is the 6/30/2020 S&P Municipal Bond 20 yr High Grade Rate Index.

## V. DETERMINATION OF DISCOUNT RATE (cont'd)

#### C. Funding Policy

Currently, the funding policy is to fund the expected employer-only benefit payments.

#### D. Long Term Expected Rate of Return and Asset Allocation

The long term expected rate of return on Plan investments was determined by the investment manager.

Asset Class	June 30, 2020 Asset Allocation*	Target <u>Asset Allocation*</u>	Long Term Expected Rate of Return*
US Equity	48.30%	48.30%	8.00%
Non-US Equity	20.70%	20.70%	8.60%
US Aggregate Bonds	9.00%	9.00%	3.60%
Intermediate-Term Credit	5.40%	5.40%	4.20%
Short-Term Credit	3.60%	3.60%	3.90%
Inflation-Protected Securities Fund	5.00%	5.00%	2.70%
REITs	8.00%	8.00%	6.80%
	100.00%	100.00%	

Projected Rate of Return\*: 7.01%

Money-Weighted Rate of Return for Fiscal Year Ending 06/30/2020\*\*:

3.70%

<sup>\*</sup> The Projected Rate of Return was estimated based on returns for similarly situated plans.

<sup>\*\*</sup> This rate is determined assuming contributions and expenses are paid in the middle of the plan year.

#### VI. NET OPEB LIABILITY

#### A. Net OPEB Liability as of July 1, 2019

The Net OPEB Liability for the Plan was measured as of July 1, 2019, and the Total OPEB Liability used to calculate the Net OPEB Liability was determined by an actuarial valuation as of July 1, 2018 and adjusted through July 1, 2019.

The components of the Net OPEB Liability of the Plan as of July 1, 2019, were as follows:

Total OPEB Liability	\$48,180,184
Plan Fiduciary Net Position	(\$3,822,064)
Net OPEB Liability	\$ 44,358,120

Plan Fiduciary Net Position as a percentage of the Total OPEB Liability 7.93%

The discount rate used to calculate the Total OPEB Liability was 2.81% under the Entry Age Normal Cost Method.

#### B. Net OPEB Liability as of June 30, 2020

The Net OPEB Liability for the Plan was measured as of June 30, 2020, and the Total OPEB Liability used to calculate the Net OPEB Liability was determined by an actuarial valuation as of July 1, 2020.

The components of the Net OPEB Liability of the Plan as of June 30, 2020, were as follows:

Total OPEB Liability	\$54,464,906
Plan Fiduciary Net Position	(\$4,302,618)
Net OPEB Liability	\$ 50,162,288

Plan Fiduciary Net Position as a percentage of the Total OPEB Liability 7.90%

The discount rate used to calculate the Total OPEB Liability was 2.68% under the Entry Age Normal Cost Method.

## **VI. NET OPEB LIABILITY**

# VI. NET OPEB LIABILITY (cont'd)

## C. Changes in Net OPEB Liability for the Fiscal Year ending June 30, 2020

	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balance as of 7/1/2019	\$48,180,184	\$3,822,064	\$44,358,120
Changes for the year:			
Service Cost	1,657,275		1,657,275
Interest on Total OPEB Liability	1,328,854		1,328,854
Differences Between Expected and			0
Actual Experience	6,490,809		6,490,809
Changes of Assumptions			
HCCTR	224,893		224,893
Mortality	(479,683)		(479,683)
Age Variance	(3,032,280)		(3,032,280)
Participation	(229,502)		(229,502)
Salary Scale	670,753		670,753
Discount Rate	741,261		741,261
Changes in Benefit Terms	0		0
Contributions - Employer		1,430,641	(1,430,641)
Contributions - Employee	43,523	43,523	0
Net Investment Income		147,719	(147,719)
Benefit Payments	(1,131,180)	(1,131,180)	0
Administrative Expense		(10,149)	10,149
Other Changes	0	0	0
Net Changes	\$6,284,722	\$480,554	\$5,804,168
Balance as of 6/30/2020	\$54,464,906	\$4,302,618	\$50,162,288

#### VI. NET OPEB LIABILITY

## VI. NET OPEB LIABILITY (cont'd)

#### D. Sensitivity of the Net OPEB Liability to Changes in Discount Rate as of June 30, 2020

The following presents the Net OPEB Liability as of June 30, 2020 calculated using the discount rate of 2.68%, as well as what the Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (1.68%) or 1-percentage-point higher (3.68%) than the current rate:

	Current				
	<u>1% Decrease</u> <u>Discount Rate</u> <u>1%</u>				
	1.68%	2.68%	3.68%		
Plan's Net OPEB Liability					
as of June 30, 2020:	56,283,251	50,162,288	44,757,533		

# E. Sensitivity of the Net OPEB Liability to Changes in Health Care Cost Trend Rate as of June 30, 2020

The following presents the Net OPEB Liability as of June 30, 2020 calculated using the trend rate of 6.50% down by the getzen model to 4.04%, as well as what the Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower (5.50% down by the getzen model to 3.04%) or 1-percentage-point higher (7.50% down by the getzen model to 5.04%) than the current rate:

	Current	
1% Decrease	<u>HCCTR</u>	1% Increase
5.50% down	6.50% down	
by the getzen	by the getzen	7.50% down by
model to	model to	the getzen model
3.04%	4.04%	to 5.04%
43,691,415	50,162,288	57,855,028
	5.50% down by the getzen model to 3.04%	5.50% down by the getzen model to 3.04%  6.50% down by the getzen model to 4.04%

#### VI. NET OPEB LIABILITY (cont'd)

#### F. Schedule of Changes in the Net OPEB Liability and Related Ratios - Last 10 Fiscal Years

Fiscal Year Ending	6/30/2020		6/30/2019	6/30/2018	6/30/2017	6/30/2016	6/30/2015	6/30/2014	6/30/2013	6/30/2012	6/30/2011
Total OPEB Liability (TOL)											
Service Cost	\$ 1,657,275	\$	1,511,943	\$ 1,354,976	\$ 2,333,000						
Interest on TOL	1,328,854		1,311,505	1,297,215	1,198,000						
Differences between exp. and actual experience	6,490,809		(473,625)	(1,947,270)	(463,000)						
Changes of assumptions	(2,104,558)		2,311,331	2,773,187	(2,214,000)						
Employee contributions	43,523		30,685	0	0						
Benefit payments	(1,131,180)	1	(998,873)	(1,120,890)	(1,187,000)						
Net Change in TOL	6,284,722		3,692,966	2,357,218	(333,000)						
Total OPEB Liability - beginning	48,180,184		44,487,218	42,130,000	42,463,000						
Total OPEB Liability - end (a)	\$ 54,464,906	\$	48,180,184	\$ 44,487,218	\$ 42,130,000						
Plan Fiduciary Net Position (FNP)											
Contributions - Employer	\$ 1,430,641	\$	1,206,684	\$ 1,250,066	\$ 1,321,000						
Contributions - Employee	43,523		30,685	30,344	0						
Net investment income	147,719		243,318	269,557	304,000						
Benefit payments	(1,131,180)		(998,873)	(1,120,890)	(1,187,000)						
Administrative expense	(10,149)		(8,583)	(13,244)	(25,000)						
Other changes	<u>0</u>		<u>0</u>	<u>0</u>	<u>0</u>						
Net Changes in FNP	480,554		473,231	415,833	413,000						
Fiduciary Net Position - beginning	3,822,064		3,348,833	2,933,000	2,520,000						
Fiduciary Net Position - end (b)	\$ 4,302,618	\$	3,822,064	\$ 3,348,833	\$ 2,933,000						
Net OPEB Liability - ending (a) - (b)	\$ 50,162,288	\$	44,358,120	\$ 41,138,385	\$ 39,197,000						
Plan Fiduciary Net Position as a percentage											
of the Total OPEB Liability	7.90%		7.93%	7.53%	6.96%						
of the Total of 22 Ememy	7.5070		7.5570	7.0070	0.5070						
Covered Employee Payroll	\$ 33,717,465	\$	34,289,000	\$ 33,049,345	\$ 30,222,000						
Net OPEB Liability as a percentage of											
covered employee payroll	148.77%		129.37%	124.48%	129.70%						

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, governments should present information for those years for which information is available.

#### **VII. SCHEDULE OF PLAN CONTRIBUTIONS**

#### A. Schedule of Plan Contributions - Last 10 Fiscal Years

Fiscal Year Ending Valuation Date	6/30/2020 7/1/2020	6/30/2019 7/1/2018	6/30/2018 7/1/2018	6/30/2017 7/1/2016	6/30/2016 7/1/2015	6/30/2015 7/1/2014	6/30/2014 7/1/2013	6/30/2013 7/1/2012	6/30/2012 7/1/2011	6/30/2011 7/1/2010
<b>Actuarially Determined Contribution</b>	\$ 3,865,167	\$ 3,610,793	\$ 3,391,137	\$ 1,408,000						
Contributions in relation to the actuarially determined contribution	\$ 1,430,641	\$ 1,206,684	\$ 1,250,066	\$ 1,513,000						
Contribution deficiency / (excess)	\$ 2,434,526	\$ 2,404,109	\$ 2,141,071	\$ (105,000)						
Covered Employee Payroll	\$ 33,717,465	\$ 34,289,000	\$ 33,049,345	\$ 30,222,000						
Contributions as a percentage of covered employee payroll	4.24%	3.52%	3.78%	5.01%						

#### VII. SCHEDULE OF PLAN CONTRIBUTIONS

The Annual Recommended Contribution (ARC) of the employer is the portion of the present value of future benefits that is to be recognized in the current fiscal year. It is made of the following components (See the Glossary for definitions of terms):

- A. Normal cost, or the portion of the TOL attributable to service in the current year
- B. 30 year Amortization of the NOL resulting from plan amendments, actuarial (gains)/losses or initial adoption(s) of the plan
- C. Interest Cost, or the expected increase in the TOL attributable to the passage of time (during the year)

A.	Normal cost as of July 1, 2019	\$ 1,611,978
B.	Amortization of Unfunded Liability	
1.	Amortization of initial unfunded liability	\$ 2,147,546
2.	Amortization of UAAL: plan amendments	0
3.	Amortization of UAAL: (gains)/losses	0
4.	Amortization of UAAL, $[(1) + (2) + (3)]$	\$ 2,147,546
C.	Interest on Normal Cost and Unfunded Liability	
1.	Normal Cost + Amortization of UAAL, $[(A) + (B.4)]$	\$ 3,759,524
2.	Interest to end of period at 2.810%	\$ 105,643
D.	Annual Recommended Contribution $[(A) + (B.4) + (C.2)]$	\$ 3,865,167
E.	<b>Expected Benefit Payments</b>	\$ 1,643,112
F.	Annual Contribution with 20 yr amortization	\$ 4,586,708

#### **VIII. SCHEDULE OF INVESTMENT RETURNS**

#### A. Schedule of Investment Returns - Last 10 Fiscal Years

Fiscal Year Ending 6/30/2020 6/30/2019 6/30/2018 6/30/2017 6/30/2016 6/30/2015 6/30/2014 6/30/2013 6/30/2012 6/30/2011

Annual money-weighted rate

of return,

**net of investment expense** 3.70% 7.02% 8.97% 12.13%

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, governments should present information for those years for which information is available.

# IX. OPEB EXPENSE

## A. OPEB Expense for the Fiscal Year Ending June 30, 2020

1.	Service Cost as of July 1, 2019	\$	1,611,978
2.	Interest on the Total OPEB Liability a. Total OPEB Liability as of July 1, 2019 b. Service Cost c. Expected benefit payments (time-weighted) d. Average expected Total OPEB Liability e. Discount Rate f. Interest on the Total OPEB Liability [(d) x (e)]	\$	\$48,180,184 1,611,978 (890,019) 48,902,143 2.81% 1,374,150
3.	Projected earning on OPEB plan investments a. Fiduciary Net Position as of July 1, 2019 b. Plan Contributions (time-weighted) c. Expected benefit payments (time-weighted) d. Average expected Fiduciary Net Position e. Long Term Rate of Return on Investments f. Earnings on Fiduciary Net Position [(d) x (e)]	\$ \$	\$3,822,064 890,019 (890,019) 3,822,064 7.01% 267,927
4.	Recognition of Deferred Outflows and (Inflows) of Resources  a. Difference between expected and actual experience b. Changes of assumptions c. Difference between projected and actual earnings on Plan investments d. Total recognized deferred outflow and (inflows) of resources [(a) + (b) + (c)]	\$ \$ \$	459,691 122,471 (10,262) 571,900
6.	Employee Contributions Administrative Expenses Other changes	\$ \$ \$	0 10,149 0
8.	Total OPEB Expense for the Fiscal Year Ending June 30, 2020 $[(1) + (2.f) - (3.f) + (4.d) + (5) + (6) + (7)]$	\$	3,300,250

<sup>&</sup>lt;sup>1</sup> Please refer to Section X for details of the recognition of deferred outflows and inflows of resource.

## IX. OPEB EXPENSE

# B. OPEB Expense and Deferred Outflows of Resources and Deferred (Inflows) of Resources Related to the Plan

The Plan's deferred outflows of resources and deferred (inflows) of resources as of June 30, 2020 are as follows:

		rred Outflows Resources	erred (Inflows) f Resources
1.	Difference between expected and actual experience	\$ 5,709,537	\$ (1,930,157)
2.	Changes of assumptions	\$ 3,597,041	\$ (3,228,979)
3.	Difference between projected and actual earnings on Plan investments	\$ 96,166	\$ (50,520)
4.	Total Deferred Outflows / (Inflows)	\$ 9,402,744	\$ (5,209,656)

Amounts reported as deferred outflows of resources and deferred (inflows) of resources will be recognized in OPEB expense as follows:

5. Fiscal Year Ending:	June 30, 2021 June 30, 2022 June 30, 2023 June 30, 2024 June 30, 2025	\$ \$ \$ \$	571,900 591,701 604,491 606,202 582,162
	Thereafter	\$	1,236,632
	Total	\$	4,193,087

#### X. DEFERRED OUTFLOWS AND INFLOWS

#### A. Schedule of Differences Between Expected and Actual Plan Experience

	Difference		Deferred														
	Between		Outflow/		Increase/(Decrease) in OPEB Expense Arising from the Recognition of the Effects of Differences between												
	Expected	Recognition	(Inflow)		Expected and Actual Experience												
Year	and Actual	Period	as of														
Ending	Experience	(Years)	7/1/2019	6/30/2020	6/30/2021	6/30/2022	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	6/30/2028	6/30/2029	6/30/2030	6/30/2031	6/30/2032	6/30/2033
6/30/2017	(462,995)	10.5900	(331,835)	(43,720)	(43,720)	(43,720)	(43,720)	(43,720)	(43,720)	(43,720)	(25,795)	0	0	0	0	0	0
6/30/2018	(1,947,270)	8.727	(1,501,007)	(223,132)	(223,132)	(223,132)	(223,132)	(223,132)	(223,132)	(162,215)	0	0	0	0	0	0	0
6/30/2019	(473,625)	8.654	(418,896)	(54,729)	(54,729)	(54,729)	(54,729)	(54,729)	(54,729)	(54,729)	(35,793)	0	0	0	0	0	0
6/30/2020	6,490,809	8.308	6,490,809	781,272	781,272	781,272	781,272	781,272	781,272	781,272	781,272	240,633	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
				\$ 459,691	\$ 459,691	\$ 459,691	\$ 459,691	\$ 459,691	\$ 459,691	\$ 520,608	\$ 719,684	\$ 240,633	\$ -	\$ -	\$ -	\$ -	\$ -

#### **B.** Schedule of Changes in Plan Assumptions

	Difference		Deferred														
	Between		Outflow/		Increase/(Decrease) in OPEB Expense Arising from the Recognition of the Effects of												
	Expected	Recognition	(Inflow)						Chan	ges of Plan Assu	mptions						
Year	and Actual	Period	as of														
Ending	Experience	(Years)	7/1/2019	6/30/2020	6/30/2021	6/30/2022	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	6/30/2028	6/30/2029	6/30/2030	6/30/2031	6/30/2032	6/30/2033
6/30/2017	(2,213,998)	10.5900	(1,586,803)	(209,065)	(209,065)	(209,065)	(209,065)	(209,065)	(209,065)	(209,065)	(123,348)	0	0	0	0	0	0
6/30/2018	2,773,187	8.727	2,137,645	317,771	317,771	317,771	317,771	317,771	317,771	231,019	0	0	0	0	0	0	0
6/30/2019	2,311,331	8.654	2,044,249	267,082	267,082	267,082	267,082	267,082	267,082	267,082	174,675	0	0	0	0	0	0
6/30/2020	(2,104,558)	8.308	(2,104,558)	(253,317)	(253,317)	(253,317)	(253,317)	(253,317)	(253,317)	(253,317)	(253,317)	(78,022)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
				\$ 122,471	\$ 122,471	\$ 122,471	\$ 122,471	\$ 122,471	\$ 122,471	\$ 35,719	\$ (201,991) \$	(78,022)	\$ -	\$ -	\$ -	\$ -	\$ -

#### C. Schedule of Difference Between Projected and Actual Earnings on Plan Investments

	Difference		Deferred							
	Between		Outflow/			Increase	(Decrease) in C	PEB Expense A	Arising from the F	Recognition of Difference Between
	Expected	Recognition	(Inflow)				Proj	ected and Actua	d Earnings on Pla	n Investments
Year	and Actual	Period	as of							
Ending	Experience	(Years)	7/1/2019	6/30/2020	6/30/2021	6/30/2022	6/30/2023	6/30/2024	6/30/2025	
6/30/2017	(99,000)	5.000	(39,600)	(19,800)	(19,800)	0	0	0	0	
6/30/2018	(63,954)	5.000	(38,372)	(12,791)	(12,791)	(12,790)	0	0	0	
6/30/2019	(8,565)	5.000	(6,852)	(1,713)	(1,713)	(1,713)	(1,713)	0	0	
6/30/2020	120,208	5.000	120,208	24,042	24,042	24,042	24,042	24,040	<u>0</u>	
				\$ (10.262)	\$ (10.262)	\$ 9.539	\$ 22,329	\$ 24,040	\$ -	

# X. DEFERRED OUTFLOWS AND INFLOWS

# D. Plan Demographics as of July 1, 2019

Status	Count	Avg. Future Service
Active	485	9.182
Retirees and Beneficiaries	58	1.000
Total	543	8.308

### **XI. PER CAPITA MEDICAL COSTS**

## A. Under Age 65 Per Capita Medical Costs, July 1, 2020

b. Family Coverage

1. 2.	Fiscal 2020 single premium cost for Town Estimate fiscal 2020 premium cost adjust		10,778.64	
2.	a. Average age of covered participants			46.71
	<ul><li>b. Factor to adjust to age 65 per assumpt [1.035 ^ (65.00 - (a))]</li><li>c. Annual single cost adjusted to fiscal 2</li></ul>			187.61%
	$[(2.b) \times (1)]$			20,221.95
1. 2.	Fiscal 2020 single premium cost for Scho Estimate fiscal 2020 premium cost adjust			9,806.40
۷.	<ul><li>a. Average age of covered participants</li><li>b. Factor to adjust to age 65 per assumpt</li></ul>	_		47.95
	[1.035 ^ (65.00 - (a))] c. Annual single cost adjusted to fiscal 2		179.78%	
	[ $(2.b) \times (1)$ ]	020 age 03 basis,		17,629.60
B.	Historical Premiums			
		<u>7/1/2016</u>	7/1/2018	7/1/2020
	School			
	Healthmate Coast to Coast	0.227.00	0.400.40	0.006.40
	a. Single Coverage	8,337.00	8,490.48	9,806.40
	b. Family Coverage	21,394.00	21,788.52	25,165.56
	Healthmate Coast to Coast 80/20			
	a. Single Coverage	7,556.00	7,694.76	8,887.32
	b. Family Coverage	19,387.00	19,744.08	22,804.20
	Classic			
	a. Single Coverage	9,939.00	10,121.52	11,690.16
	b. Family Coverage	25,090.00	25,551.84	25,165.56
	Dental			
	a. Single Coverage	446.00	444.84	391.08
	1 1 1 0	1.004.00	1 000 04	051.01

1,082.04

1,084.00

951.24

# XI. PER CAPITA MEDICAL COSTS (cont'd)

	Town					
	Police					
	a. Single Cove	_		9,454.00	9,655.56	11,588.76
	b. Family Cov	verage		23,856.00	24,364.44	29,242.44
	Fire					
	a. Single Cove	•		9,518.00	9,518.04	11,423.64
	b. Family Cov	verage		24,110.00	24,109.56	28,936.44
	Town					
	a. Single Cove	•		8,981.00	8,980.68	10,778.64
	b. Family Cov	verage		22,660.00	22,659.72	27,196.44
	Dental Town					
	a. Single Cove	•		430.00	419.52	381.84
	b. Family Cov	verage		1,037.00	1,013.28	919.68
	Dental Police/I	Fire				
	a. Single Cove	erage		430.00	419.52	381.84
	b. Family Cov	erage		1,070.00	1,045.92	949.32
C.	Sample Proje	cted Per Capit	ta Medical Cos	ts		
		Aging	Town	Police	Fire	Town Dental
	<u>Age</u>	Assumption	Claims Costs	Claims Costs	Claims Costs	Claims Costs
	50	3.50%	12,070.29	12,977.49	12,792.58	381.84
	55	3.50%	14,335.72	15,413.19	15,193.58	381.84
	60	3.50%	17,026.34	18,306.03	18,045.20	381.84
	65	3.50%	20,221.95	21,741.82	21,432.04	381.84
				School	School	
			School	Healthmate	Healthmate	
		Aging	Classic	Standard	80/20	School Dental
	<u>Age</u>	Assumption	Claims Costs	Claims Costs	Claims Costs	Claims Costs
	50	3.50%	12,544.35	10,522.95	9,536.71	391.08
	55	3.50%	14,898.75	12,497.96	11,326.62	391.08
	60	3.50%	17,695.04	14,843.65	13,452.47	391.08
	65	3.50%	21,016.16	17,629.60	15,977.31	391.08

# **XII. PARTICIPANT DATA**

## A. Reconciliation of Participant Data

	<u>Actives</u>	<u>Retirees</u>	<u>Total</u>
Total as of July 1, 2018	485	58	543
New Entrants	70	n/a	70
Terminations	(54)	n/a	(54)
Active deaths	-	n/a	0
New retirees	(12)	12	0
Retiree/beneficiary deaths	n/a	-	0
Dropped coverage	n/a	(17)	(17)
Data adjustments	-	1	1
Total as of July 1, 2020	489	54	543

## **B.** Age and Service Distribution of Members

# 1. Eligible Active Members:

Complete Years of Service as of July 1, 2020

Attained <u>Age</u>	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	<u>Total</u>
Under 25	12	_	-	-	-	-	-	12
25-29	29	4	-	-	-	-	-	33
30-34	19	20	5	-	-	-	-	44
35-39	13	11	29	8	-	-	-	61
40-44	13	5	14	26	9	-	-	67
45-49	17	5	10	13	29	2	-	76
50-54	7	6	8	15	13	10	4	63
55-59	6	5	15	16	9	14	11	76
60-64	3	6	10	8	12	5	3	47
65+	-	2	1	4	1	2	-	10
Total	119	64	92	90	73	33	18	489

# XII. PARTICIPANT DATA (cont'd)

## 2. Retired Members:

<u>Attained Age</u>	<u>Total</u>
Under 50	5
50-54	13
55-59	9
60-64	27
65+	-
Total	54

# C. Participant Statistics

1.	Eligible Active Members:	7/1/2020	7/1/2018
	Average age of active members:	46.3	46.9
	Average past service of active members:	13.6	13.6
	Average future service until retirement:	11.9	9.7
	Average age of retirement for active members:	58.2	56.6
2.	Retired Members and Spouses:		
	Average age of all retired members under 65:	58.1	58.4

<u>Actuarial Accrued Liability (AAL)</u> – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value (APV) of plan benefits and expenses allocated to all periods prior to the valuation date. This is the amount of the APV not provided by future Normal Costs.

- a) 100% of the actuarial present value of benefits expected to be paid (APV) to:
  - i) Retirees and their dependents
  - ii) Active employees who have attained their expected retirement date and their dependents
- b) Proportionate amount, based on employee service recognized up to the valuation date, of the actuarial present value of benefits expected to be paid (AAL) for active employees who have not yet attained their expected retirement date.

The AAL is the benefit obligation disclosed in the financial statements representing current plan liability.

- <u>Active Plan Participant</u> Any active employee who has rendered service during the credited service period and is expected to receive benefits, including benefits to or for any beneficiaries and covered dependents, under the Postemployment benefit plan.
- <u>Actuarial Cost Method or Funding Method</u> A procedure for determining the Actuarial Present Value of OPEB plan benefits and expenses and for developing an actuarial equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
- <u>Actuarial determined contribution (ADC)</u> 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 Total Projected Benefits (APV) The actuarial present value of the cost to finance, as of a specified date, all future benefit costs or a series of benefit costs, with each amount adjusted to reflect (a) the time value of money (through discounts for interest) and (b) the probability of payment (for example, by means of decrements for events such as death, disability, withdrawal or retirement) between the specified date and the expected date of payment. This includes benefits to current active members, terminated employees entitled to benefits but not yet receiving them, if any, retirees, their beneficiaries and any covered dependents pursuant to the terms of the OPEB plan. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
- <u>Amortization Payment</u> That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability (UAAL).
- Attribution Period The period of an employee's service to which the actuarial present value of total projected benefits for that employee is assigned. The beginning of that period is generally the employee's date of hire and the end of the attribution period is the full eligibility date.

- <u>Discount Rate</u> 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 this Statement) to be greater than the benefit payments that are projected to be made in that 35 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).
- 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 (AAL).
- <u>Full Eligibility Date</u> The date at which an employee has rendered all service necessary to receive full benefits under the plan.
- <u>Gains and Losses</u> Changes in the Unfunded Actuarial Accrued Liability (UAAL) that is the result of actual experience of the plan being different than what was expected.
- Health Care Cost Trend Rate (HCCTR) An assumption about the annual rate(s) of change in the cost of health care benefits which are currently provided by the Postemployment benefit plan, due to factors other than changes in the composition of the plan population by age and dependency status, for each year from the measurement date until the end of the period in which benefits are expected to be paid. The Health Care Cost Trend Rate implicitly considers estimates of health care inflation, changes in health care utilization or delivery patterns, technological advances, and changes in the health status of the plan participants.

Differing types of service, such as hospital care and dental care, may have different trend rates as may service for different portions of the plan population, such as Medicare eligible and non-Medicare eligible members.

<u>Implicit Rate Subsidy</u> – It is a common practice to permit retired employees to continue in the plan sponsor's group health insurance plan at their own cost once eligibility for plan sponsor paid benefits is exhausted. This practice creates an OPEB liability based on the theory that retirees have higher utilization of health care benefits than active employees. Therefore, unless the premium rate for retirees is set to fully recover their health costs, the premium for active employees is implicitly overstated to subsidize utilization by retirees. This is called implicit rate subsidy. This rate subsidy is considered a benefit subject to OPEB valuation, included in GASB75.

The OPEB liability normally includes the cost of the implicit rate subsidy for the years in which the retiree is paying the insurance costs for continued coverage. When the retiree is eligible for Medicare, the cost of coverage is generally much closer to the premium cost. Therefore, there is no OPEB liability assumed for Medicare-eligible retirees paying 100% of the premium.

- <u>Interest on Total OPEB Liability</u> The accrual of interest on the TOL for the year of the valuation. It is calculated by applying the beginning of year Discount Rate to the sum of the Expected Benefit Payments and ToL as of the beginning of year.
- <u>Market Value (or Fair Value) of Plan Assets</u> The amount that a plan could reasonable expect to receive for an investment in a current sale between a willing buyer and a willing seller.
- <u>Market-Related Value of Plan Assets</u> A balance used to calculate the Expected Return of Plan Assets. Market-related value can be either fair value or a calculated value that recognizes changes in fair value in a systematic and rational manner over not more than five years.
- Normal Cost The portion of the Actuarial Present Value of Total Projected Benefits (APV) attributed to employee service during a valuation year by the Actuarial Cost Method.
- Net OPEB Liability The liability of employers and nonemployer contributing entities to plan members for benefits provided through a defined benefit OPEB plan that is administered through a trust that meets the criteria in paragraph 3 of GASB 74.
- <u>OPEB Assets</u> The amount recognized by an employer for contributions to an OPEB plan greater than the OPEB expense.
- <u>OPEB Expenditures</u> The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the modified accrual basis of accounting.
- <u>OPEB Expense</u> The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the accrual basis of accounting.
- <u>OPEB Liabilities</u> The amount recognized by an employer in each accounting period for contributions to an OPEB plan less than OPEB expense/expenditures.

- Open Group/Closed Group Terms used to distinguish between two classes of Actuarial Cost Methods. Under an Open Group Actuarial Cost Method, Actuarial Present Values associated with expected future entrants are considered; under a Closed Group Actuarial Cost Method, Actuarial Present Values associated with expected future entrants are not considered.
- <u>Pay-As-You-Go (PAYGO)</u> A method of expensing retiree medical benefits recognizing as an expense the cash currently paid as benefits to retirees, spouses and covered dependents. The minimum method of financing a plan, having no pre-funding until benefits actually become payable.
- <u>Per Capita Benefit Cost by Age</u> The current cost of providing OPEB health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
- <u>Plan Fiduciary Net Position</u> Assets which have been irrevocably dedicated to the payment of benefits under the
- <u>Postemployment</u> The period between termination of employment and retirement as well as the period after retirement.
- <u>Postemployment Benefits</u> All forms of benefits, other than retirement income (pensions), provided by the employer to the retiree, including, but not limited to, health care, life insurance and legal assistance.
- <u>Substantive Plan</u> The terms of a postemployment benefit plan as understood by an employer and plan members that provides postemployment benefits to the employees who render services in exchange for those benefits. The substantive plan is the basis for the accounting for this transaction. In some situations an employer's cost-sharing policy, as evidenced by past practice or by communication of intended changes to a plan's cost-sharing provisions, or a past practice of regular increases in certain monetary benefits may indicate that the substantive plan differs from the existing written plan.
- <u>Total OPEB Liability</u> The portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service in conformity with the requirements of GASB 74. The total OPEB liability is the liability of employers and nonemployer contributing entities to plan members for benefits provided through a defined benefit OPEB plan that is not administered through a trust that meets the criteria in paragraph 3 of GASB 74.
- <u>Unfunded Actuarial Accrued Liability (UAAL)</u> -- The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.
- Valuation Date The date as of which the plan assets and OPEB obligations are measured.