

September 10, 2020

Mr. Christopher Cotta
Interim Town Administrator
343 Highland Road
Tiverton, Rhode Island 02878

Dear Mr. Cotta:

An actuarial valuation of the Town of Tiverton Police Department Pension Plan (Plan) was performed as of July 1, 2020. The purpose of the valuation is to:

- Compare the current value of Trust assets with accrued liabilities to assess the funded condition of the Pension Plan,
- Compute the Town's recommended contribution rate for the Fiscal Year ending June 30, 2021, and
- Provide information which may be required by the Town's auditors under GASB 67/68.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The employee data and Plan asset data was provided by the plan administrator. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. Employee data is snapshot data as of the valuation date.

The valuation was based on the provisions of the Plan as amended through the beginning of the Plan Year. Each actuarial assumption used in this valuation is reasonably related to the past experience of the Plan and represents reasonable expectations of future experience under the Plan. The Plan trustees with advice and approval of the actuary set the assumptions and methods for the valuation.

This report is only valid when presented in its entirety and is intended for use by the Trustees. It must not be reproduced without permission or used for any purpose other than as stated herein. This report is only valid when presented in its entirety. It must not be reproduced without permission.

Neither the signing actuary nor the firm of McCloud Consulting Group has a conflict of interest that would impair the objectivity of our work. The undersigned meets the Qualification Standards for Prescribed Statements of Actuarial Opinion promulgated by the American Academy of Actuaries.

Respectfully submitted,



Traci M. Christian, EA, MAAA
Enrollment Number: 20-06694
McCloud Consulting Group



Jeffrey A. Brown
JD, LL.M., QPA, ERPA
Compensation Planning



Table of Contents

Section One: Valuation Summary

Valuation Summary	1
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Section Two: Actuarial Calculations – Funding

Unfunded Actuarial Accrued Liability.....	3
Computed Contribution Rates and Recommendation	3
Projection of Funded Status and Recommended Contributions.....	4
History of Contributions, Assets and Liabilities	5

Section Three: Retirement Plan Benefit Provisions

Benefit Provision Summary	6
---------------------------------	---

Section Four: Actuarial Assumptions and Methods

Actuarial Assumptions	8
Actuarial Methods	9

Section Five: Valuation Data

Asset Summary.....	11
Participant Summary	12

Section Six: Accounting Disclosures

Information for GASB Statements No. 67 and No. 68	15
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Section Seven: Glossary of Terms

Glossary of Terms	20
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Section One:

Valuation Summary

Liabilities and Funded Condition of Pension Plan

	<u>July 1, 2019</u>	<u>July 1, 2020</u>
Actuarial Accrued Liability	\$19,331,488	\$19,601,842
Actuarial Value of Assets	\$13,182,526	\$13,843,625
Funded Status of the Plan	68.2%	70.6%

Actuarial Value of Assets

The market value of assets including accrued contributions was used for the July 1, 2020 valuation.

Town's Computed Contribution Rate

The Town's recommended contribution rate was computed as a percentage of active member payroll and assumed to be payable at the end of the year.

	<u>July 1, 2019</u>	<u>July 1, 2020</u>
Normal Cost	18.4%	18.8%
Amortization of Unfunded Liability	22.4%	22.7%
Interest	3.1%	3.1%
Total Computed Contribution	43.9%	44.6%
Member portion	10.0%	10.0%
Net Computed Contribution Rate	33.9%	34.6%

Pension Fund Experience

Overall experience during the year ended June 30, 2020, was more favorable than expected. The plan assets earned a rate of return of approximately 6.2%, compared to an expected return of 7.5%, resulting in an investment loss of about \$181,000. Liability gains due to lower than expected pay increases offset the asset losses, resulting in a net actuarial gain for the year ended June 30, 2020 of \$334,385.

Benefit Provision Changes

There were no changes to the Plan provisions.

Assumption and Method Changes

The mortality projection scale was updated to MP-2019, from scale MP-2018 used in the prior valuation.

Participant Data

	<u>July 1, 2019</u>	<u>July 1, 2020</u>
Active Members	31	28
Active Member Payroll	\$1,982,955	\$1,889,588
Average Member Payroll	63,966	67,485
Retirees and Beneficiaries	31	34
Annual Pensions	\$950,005	\$1,113,157

Financial Data

Market Value of Assets	\$13,182,526	\$13,843,625
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Conclusion and Comments

The long-term viability of this plan is dependent on adherence to funding the actuarial recommended contribution each year. The Funding Improvement Plan, which required town contributions of at least \$700,000 each year, has run its course. The plan's projected contributions are expected to increase each year because the funding method is intended to keep plan contributions relatively level as a percentage of payroll.



Section Two:

***Actuarial Calculations –
Funding***

Unfunded Actuarial Accrued Liability

	<u>July 1, 2019</u>	<u>July 1, 2020</u>
Actuarial Accrued Liability	\$19,331,488	\$19,601,842
Actuarial Value of Assets	<u>\$13,182,526</u>	<u>\$13,843,625</u>
Unfunded Actuarial Accrued liability	\$6,148,962	\$5,758,217
Funded Status of the Plan	68.2%	70.6%

Computed Contribution Rates

The normal cost represents the benefits earned in the current year.

Accrued liabilities exceeded accumulated assets as of July 1, 2012. The excess is being amortized as a level percent of payroll over 25 years (until June 30, 2037). Beginning with the July 1, 2017 valuation, annual changes to the unfunded liability due to assumption changes, actuarial gains and losses, etc. are amortized as a level percent of pay over fixed periods. The sum of the annual amortization charges and credits is a component of the recommended contribution. The following table sets forth the schedule of amortizations as of the current valuation date:

Date	Rem.	Outstanding	2020-21	
Estab.	Years	Balance	Payment	
25 7/1/12	Unfunded Actuarial Liability	17	\$5,670,697	\$444,084
20 7/1/17	Change Mortality Table	17	671,872	52,616
	Actuarial (Gain)/Loss	12	(478,939)	(48,748)
7/1/18	New Mortality Projection Scale	18	(83,304)	(6,266)
7/1/18	Actuarial (Gain)/Loss	13	(319,180)	(30,517)
7/1/19	Change Mortality Table	19	620,244	44,946
7/1/19	Actuarial (Gain)/Loss	14	50,284	4,542
7/1/20	Change Mortality Table	20	(39,072)	(2,735)
7/1/20	Actuarial (Gain)/Loss	15	(334,385)	(28,683)
Total			\$5,758,217	\$429,239

Contribution Recommendation for Fiscal Year Beginning July 1, 2020:

	<u>Dollar Amount</u>	<u>As a Percent Of Current Payroll</u>
Total Normal Cost	\$354,423	18.8%
Amortization of Unfunded Liability	429,239	22.7%
Interest to End of Fiscal Year	58,775	3.1%
Total Computed Contribution	842,437	44.6%
Expected Member portion	(188,959)	(10.0)%
Town's Net Computed Contribution Rate	<u>\$653,478</u>	34.6%

Town of Tiverton Police Department
Pension Plan

700K

**Town of Tiverton Police Department Pension Plan
Projection of Funded Status and Recommended Contributions**

Year	Total Normal Cost	Amortization of Unfunded	Recommended Contribution	Member Contribution	Town Contribution	Town Payroll	Town Contribution as a % of Payroll	Benefit Payments	Assets	Accrued Liability	Unfunded Liability	Funded Ratio
Beginning												
2020	354,423	429,239	842,437	188,959	653,478	1,889,588	34.6%	1,142,407	13,843,625	19,601,842	5,758,217	70.6%
2021	366,828	444,263	871,923	195,572	676,350	1,955,724	34.6%	1,222,207	14,570,678	20,267,738	5,697,060	71.9%
2022	379,667	459,813	902,441	202,417	700,023	2,024,174	34.6%	1,255,098	15,300,058	20,914,118	5,614,060	73.2%
2023	392,955	475,906	934,026	209,502	724,524	2,095,020	34.6%	1,305,190	16,081,681	21,588,655	5,506,974	74.5%
2024	406,709	492,563	966,717	216,835	749,882	2,168,346	34.6%	1,344,115	16,902,724	22,276,096	5,373,372	75.9%
2025	420,943	509,801	1,000,550	224,424	776,126	2,244,238	34.6%	1,499,688	17,778,878	22,989,495	5,210,617	77.3%
2026	435,676	527,644	1,035,569	232,279	803,291	2,322,786	34.6%	1,518,677	18,594,438	23,610,295	5,015,857	78.8%
2027	450,925	546,111	1,071,814	240,408	831,405	2,404,084	34.6%	1,537,819	19,487,797	24,273,792	4,785,995	80.3%
2028	466,707	565,224	1,109,326	248,823	860,504	2,488,227	34.6%	1,556,392	20,465,901	24,983,584	4,517,683	81.9%
2029	483,042	585,006	1,148,152	257,531	890,620	2,575,314	34.6%	1,587,782	21,537,013	25,744,306	4,207,293	83.7%
2030	499,949	605,481	1,188,337	266,545	921,792	2,665,450	34.6%	1,610,195	22,696,173	26,547,076	3,850,903	85.5%
2031	517,447	626,687	1,229,944	275,874	954,070	2,758,741	34.6%	1,626,419	23,960,708	27,404,974	3,444,266	87.4%
2032	535,557	722,266	1,352,160	285,530	1,066,631	2,855,297	37.4%	1,643,346	25,346,418	28,329,193	2,982,775	89.5%
2033	554,302	795,272	1,450,792	295,523	1,155,269	2,955,233	39.1%	1,681,412	26,945,294	29,324,635	2,379,341	91.9%
2034	573,703	815,751	1,493,663	305,867	1,187,796	3,058,666	38.8%	1,694,570	28,726,923	30,375,392	1,648,469	94.6%
2035	593,782	892,362	1,597,605	316,572	1,281,033	3,165,719	40.5%	1,691,515	30,673,001	31,512,160	839,160	97.3%
2036	614,565	923,541	1,653,463	327,652	1,325,812	3,276,519	40.5%	1,702,595	32,876,044	32,758,941	(117,103)	100.4%
2037	636,074	64,488	753,104	339,120	413,985	3,391,197	12.2%	1,769,232	35,290,773	34,110,077	(1,180,697)	103.5%
2038	658,337	78,462	792,059	350,989	441,070	3,509,889	12.6%	1,794,381	36,883,349	35,516,534	(1,366,815)	103.8%
2039	681,379	(5,200)	726,892	363,274	363,619	3,632,735	10.0%	1,824,797	38,609,691	37,026,316	(1,583,375)	104.3%
2040	705,227	-	758,119	375,988	382,131	3,759,881	10.2%	1,872,298	40,366,342	38,642,545	(1,723,797)	104.5%

The results presented here are ESTIMATES. They are based on the data, assumptions, methods and plan provisions outlined in this report unless otherwise noted. These results are for **discussion purposes only** and should not be relied upon for puposes of making cash contributions to the Plan nor for any other purposes.

Recommended Town Contributions

Year Ended June 30	Computed Contribution	% of Payroll Contribution Rates
2009	711,225	47.0
2010	1,023,362	59.6
2011	1,067,884	60.6
2012	682,092	43.0
2013	590,573	40.1
2014	544,334	37.6
2015	536,634	36.9
2016	503,576	29.3
2017	559,740	33.2
2018	575,463	33.9
2019	583,132	30.9
2020	672,532	33.9
2021	653,478	34.6

History of Assets and Accrued Liabilities

Valuation Date July 1	Valuation Assets	Actuarial Accrued Liabilities	Funded Ratio	Unfunded Actuarial Accrued Liabilities
2008	6,925,601	12,155,294	57.0	5,229,693
2009	5,732,961	14,242,648	40.3	8,509,687
2010	5,632,552	14,529,430	38.8	8,896,878
2011	6,959,498	12,858,385	54.1	5,898,887
2012	6,694,416	13,228,181	50.6	6,533,765
2013	7,465,375	13,616,401	54.8	6,151,026
2014	8,848,568	14,002,853	63.2	5,154,285
2015	9,778,266	14,604,337	67.0	4,826,071
2016	9,556,569	15,266,488	62.6	5,709,919
2017	11,051,030	16,938,557*	65.2	5,887,527
2018	12,374,127	17,853,211	69.3	5,479,084
2019	13,182,526	19,331,488*	68.2	6,148,962
2020	13,843,625	19,601,842	70.6	5,758,217

*Mortality was changed in the 2017 valuation from RP-2000 to tables reflecting generational improvements. The mortality projection scales are updated each year since 2017. In the 2019 valuation, the base table was changed to one newly developed for public safety workers.



Section Three:

***Retirement Plan
Benefit Provisions***

Benefit Provision Summary

Effective Date

July 1, 1978

Eligibility

All employees are eligible after completing their probationary service.

Monthly Compensation

Compensation includes regular base pay including longevity and incentive earnings.

Credited Service

Service measured from the date of employment (or one year prior to completing probationary service, if later.)

Final Average Earnings

Average of the highest three consecutive years of total Monthly Compensation in a ten-year period prior to retirement or termination of employment.

Normal Retirement Benefit

For retirements on or after June 1, 2000, a monthly benefit equal to 2.5% of Final Average Earnings multiplied by Credited Service for the first 20 years of Service, Plus 2% of Final Average Earnings multiplied by Credited Service in excess of 20 years subject to a maximum benefit of 75% of Final Average Earnings.

Normal Form

The Normal Form of payment is a Life Annuity.

Normal Retirement Date

All Members hired after June 30, 2007 must have at least 10 years of Credited Service or be at least 65 with 5 years of Credited Service in order to be able to retire. Members who satisfy the previous sentence or who were hired before July 1, 2007 may retire in accordance with the following rules:

A Member hired prior to July 1, 2012 may retire, with full benefits, on the earlier of his 55th birthday or upon completion of 20 years of Credited Service.

A Member hired on or after July 1, 2012 may retire, with full benefits, upon the earlier of his 55th birthday or upon completion of 25 years of Credited Service.

Disability Retirement

If the disability was duty-related, the benefit is 66 2/3% of Final Average Compensation. The non-duty-related Disability Benefit is 50% of final Compensation.

Pre-Retirement Death Benefit

The Beneficiary of a Participant who dies shall receive a benefit of \$400 for each year of service, subject to a minimum of \$2,000 and a maximum of \$8,000. After retirement, the benefit is reduced by 25% per year but not less than \$2,000.

Vesting

100% after 10 years.

Pre-Retirement Death Benefit

50% of Accrued Benefit at time of death payable to spouse until death or remarriage with additional benefits payable to surviving children under age 18 if no spouse survives.

Employee Contributions

10% of compensation

Post-Retirement COLA

Base Benefit increased 1% of the compensation each year for the position from which they retired. These increases are cumulative, not compounded.



Section Four:

***Actuarial Assumptions
And Methods***

Actuarial Assumptions

Economic Assumptions

- (i) Interest Rate 7.5% (net of administrative and investment expenses paid by the Trust)
- (ii) Salary Increases 3.5%

Demographic Assumptions

- (i) Mortality Public Safety 2010 base mortality, projected generationally using mortality improvement scale MP-2019. (Previously, scale MP-2018)
- (ii) Disability Sample disability rates are as follows:

Annual Rates of Disability		
Age	Males	Females
25	.03%	.05%
30	.04	.06
40	.07	.10
50	.18	.26
55	.36	.49
60	.90	1.21

- (iii) Turnover None Assumed
- (iv) Retirement The rate is 50% at first eligibility, then the rate is 10% per year thereafter with 100% at age 55 (or first eligible if later.)
- (v) Marital Status 80% of participants are assumed to be married with males 3 years older than their female spouses.
- (vi) COLA adjustments 1.3% increase each year.
- (vii) Asset Value Assets are valued at market, plus receivables.

Actuarial Methods Used for the Valuation

Normal Cost

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- ❖ The annual normal costs for each individual active member, payable from date of hire to date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- ❖ Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Financing of Unfunded Actuarial Accrued Liability

The excess of actuarial accrued liabilities over accrued assets is amortized as a level percent-of-payroll in layers, with the original unfunded accrued liability being amortized over the remaining period that was previously established (ending June 30, 2037). New layers of amortization are established for changes in method, changes of assumptions, changes to the plan, and actuarial gains and losses. The annual net amount of amortization is added to the normal cost and increased with interest to compute the recommended contribution amount.

Assessment and Disclosure of Risk

The results presented in this report are based upon actuarial assumptions and methods. The assumptions represent the expected experience for the Plan and the methods allocate costs to past and future service. When the actual experience of the Plan is different from what is assumed in the valuation, volatility in the funded status of the Plan and the contribution requirements can result.

The Actuarial Standards of Practice require the plan's actuary to assess certain risks to the plan. Specifically, the impact of future events that may differ significantly from the assumptions used to produce the current actuarial valuation. The purpose of this information is to make the plan sponsor aware of such risks. For a more detailed analysis of any of these items, please contact our office.

Assumptions: Actuarial assumptions such as interest rates, rates of retirement and withdrawal as well as mortality tables used for calculating the actuarially recommended contribution are important factors. Each actuarial assumption used in this valuation is reasonably related to the past experience of the Plan and represents reasonable expectations of future experience under the Plan. With advice from the actuary, the trustees approve the assumptions for the valuation. When actual plan experience deviates from what is expected, the resulting gain or loss is amortized over future years and becomes part of the recommended contribution. If there is a decrease in the assumed future return on plan investments, the overall funding requirement,

barring other mitigating circumstances, will increase. Updates to mortality tables often extend life expectancies, which also results in an increase to plan liabilities.

Contribution Risk: Funding less than the actuarially recommended contribution will not typically fully fund the Plan on a long-term basis. If the Plan is underfunded, additional contributions may be required.

Investment Risk: Plan assets include contributions and asset earnings. The Plan's investment portfolio should take into consideration the funded status of the Plan, anticipated future contribution levels, and the expected future years of the Plan. Investment performance may have a significant impact on future required contributions to fully fund the Plan on a long-term basis.

Demographic Risk: Demographic changes from year to year can have a significant impact on valuation results.



Section Five:

Valuation Data

Summary of Asset Information Submitted for the Valuation

Statement of Assets

As of June 30, 2020, the net market value of Pension Plan assets was reported to be \$13,182,526.

Market Value of Assets as of July 1, 2019	\$13,182,526
a. Revenues	
(i) Member Contributions	\$196,811
(ii) Employer (Town) Contributions	700,000
(iii) Investment Income (Net of investment fees)	842,654
b. Disbursements	
(i) Benefits Paid	\$1,048,841
(ii) Administrative expenses	11,525
Market Value of Assets as of July 1, 2020	\$13,843,625

Actuarial Value of Assets

The market value of assets was used for the July 1, 2020 valuation.

Participant Summary

Retirees Included in the Valuation

There were 34 retirees and beneficiaries of deceased retirees included in the valuation, with annual pensions totaling \$1,113,157. The breakdown by age division is as follows:

Retirees and Beneficiaries

Age	Number	Average Annual Pensions
Under 40		
40-44		
45-49	3	\$32,299
50-54	7	39,715
55-59	6	36,401
60-64	1	38,058
65-69	3	29,048
70-74	5	23,991
75-79	5	34,817
Over 80	4	25,152
Total	34	\$32,740

Active Members – Age and Service Distribution

Age	Service							Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	Over 30	
20 - 24								
25 - 29	6	1						7
30 - 34	3	2						5
35 - 39		1	2					3
40 - 44		1		2	1			4
45 - 49		1		3		1		5
50 - 54				2		1		3
55 - 59								
60 - 64				1				1
65+	—	—	—	—	—	—	—	—
Total	9	6	2	8	1	2		28

Total Active Participant Information

	2018	2019	2020
Active Members	30	31	28
Valuation Payroll	1,888,393	1,982,955	1,889,588
Average Compensation	62,946	63,966	67,485
Average Age (yrs.)	38.4	39.4	39.0
Average Service (yrs.)	11.4	12.0	11.2

Reconciliation with Prior Year

	Actives	Retirees
July 1, 2019 Participants	31	31
Corrections		
New Participants	1	
Returned to Active		
Retirements	(3)	3
Deaths		
New Beneficiaries		
Benefits Expire		
Terminations		
- Vested		
- Non-Vested		
- Lump-Sums	(1)	
July 1, 2020 Participants	28	34



Section Six:

Accounting Disclosures

GASB Statement Nos. 67 and 68 Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation as well as the previous 10 years follows:

Valuation Date June 30	Total Pension Liability	Plan Assets	Net Pension Liability	Percent Funded	Annual Covered Payroll	NPL As a % Of Covered Payroll
2010	14.529	5.633	8.897	38.8	1.762	504.9
2011	12.858	6.959	5.899	54.1	1.587	371.6
2012	13.228	6.694	6.534	50.6	1.473	443.5
2013	13.616	7.465	6.151	54.8	1.448	424.8
2014	14.003	8.849	5.154	63.2	1.455	354.3
2015	14.604	9.778	4.826	67.0	1.716	281.2
2016	15.266	9.556	5.710	62.6	1.686	338.6
2017	16.939	11.051	5.888	65.2	1.700	346.3
2018	17.853	12.374	5.479	69.3	1.888	290.1
2019	19.332	13.183	6.149	68.2	1.983	310.1
2020	19.602	13.844	5.758	70.6	1.890	304.7

Dollar amounts in millions.

Schedule of Employer Contributions

Year Ended June 30	Annual Recommended Contribution	Percent Contributed
2010	1,023,362	0%
2011	1,067,884	42%
2012	682,092	81%
2013	590,573	119%
2014	544,334	152%
2015	536,634	149%
2016	503,576	139%
2017	559,740	116%
2018	575,463	122%
2019	583,132	120%
2020	672,532	104%

Schedule of Changes in Net Pension Liability

Year End June 30	Beginning of Year Net Pension Liability	Service Cost	Interest Cost	Expected Return On Assets	Employer Contrib.	Employee Contrib.	Plan Changes	Assumption Changes	(Gain)/ Loss	End of Year Net Pension Liability
2013	6,533,765	318,749	989,770	(507,331)	(700,000)	(143,389)	-	-	(340,538)	6,151,026
2014	6,151,026	285,815	1,016,416	(595,528)	(825,000)	(166,440)	-	-	(712,004)	5,154,285
2015	5,154,285	315,103	1,047,597	(699,268)	(800,000)	(179,257)	-	-	(12,389)	4,826,071
2016	4,826,071	322,696	1,091,027	(763,745)	(700,000)	(172,701)	-	-	1,106,571	5,709,919
2017	5,709,919	302,324	1,138,411	(741,343)	(650,000)	(186,677)	-	677,967	314,893	5,887,527
2018	5,887,527	289,431	1,257,599	(852,452)	(700,000)	(195,936)	-	(83,567)	(207,085)	5,479,084
2019	5,479,084	334,284	1,328,812	(950,560)	(700,000)	(193,790)	-	620,398	851,132	6,148,962
2020	6,148,962	364,994	1,437,861	(998,439)	(700,000)	(192,361)	-	(39,072)	(302,800)	5,758,217

Schedule of Contributions

Year Ending June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2010	1,023,362	--	1,023,362	1,716,156	0.00%
2011	1,067,884	452,407	615,477	1,762,244	25.67%
2012	682,092	550,000	132,092	1,587,328	34.65%
2013	590,573	700,000	(109,427)	1,473,196	47.52%
2014	544,334	825,000	(280,666)	1,448,086	56.97%
2015	536,634	800,000	(263,366)	1,454,719	54.99%
2016	503,576	700,000	(196,424)	1,716,424	40.78%
2017	559,740	650,000	(90,620)	1,686,288	38.55%
2018	575,463	700,000	(124,537)	1,700,026	41.18%
2019	583,132	700,000	(116,868)	1,888,393	37.07%
2020	672,532	700,000	(27,468)	1,982,955	35.30%

Pension Expense for Year Ended June 30, 2020

Service cost	\$ 364,994
Interest on the total pension liability	1,437,861
Employee contributions	(196,811)
Projected earnings on pension plan investments	(998,439)
Pension plan administrative expense	11,525
Outflows / (inflows) of resources recognized in the current year due to	
Difference between expected and actual experience	62,079
Changes of assumptions	200,599
Difference between projected and actual earnings on plan investments	23,467
Pension expense	<u>\$ 905,275</u>

Long-term Expected Real Rates of Return

The long-term expected rate of return on pension plan investments was determined using a method in which the best-estimate ranges of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage as shown in the following table, and then adding expected inflation, which is 2.5%. The target allocation and

best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Equities	80%	6.0%
Fixed Income	17%	2.5%
Cash and Equivalents	3%	0.0%

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
Balances at 6/30/19	\$ 19,331,488	\$ 13,182,526	\$ 6,148,962
Changes for the year			
Service cost	364,994		364,994
Interest	1,437,861		1,437,861
Difference between expected and actual experience	(444,588)		(444,588)
Contributions - employer		700,000	(700,000)
Contributions - employee		196,811	(196,811)
Net investment income		824,654	(824,654)
Changes of Assumptions	(39,072)		(39,072)
Benefit payments	(1,048,841)	(1,048,841)	--
Administrative expense		(11,525)	11,525
Other changes		--	--
Net changes	270,354	661,099	(390,745)
Balances at 6/30/20	\$ 19,601,842	\$ 13,843,625	\$ 5,758,217

Statement of Outflows and Inflows Arising During the Current Period

1. Difference between expected and actual experience of the TPL (gains) / losses	\$(444,588)
2. Assumption Changes (gains) / losses	(39,072)
3. Recognition period: Average of the expected remaining service lives of all plan participants (in years)	6.27
4. Difference between expected and actual return on plan investments	\$173,785
5. Outflow (inflow) of resources recognized in the current pension expense:	
a. for difference between expected and actual experience of the TPL, (1) / (3)	\$ (70,907)
b. for assumption changes, (2) / (3)	(6,232)
c. for difference between expected and actual return on investments, (4) / 5	34,757

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1% Decrease 6.5%	Current Single Discount Rate Assumption 7.5%	1% Increase 8.5%
Total Pension Liability	\$ 21,993,255	\$ 19,601,842	\$ 17,626,298
Plan Fiduciary Net Position	13,843,625	13,843,625	13,843,625
Net Pension Liability / (Asset)	\$ 8,149,630	\$ 5,758,217	\$ 3,782,673

Deferred Outflows and Deferred Inflows of Resources to be Recognized in Future Years

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 405,619	\$ 374,157
Changes in Assumptions	616,197	81,442
Net difference between projected and actual earnings on pension plan investments	--	158,453
Total	\$ 1,021,816	\$ 614,052

Year Ending June 30	Net Deferred Outflows of Resources
2021	\$ 68,481
2022	127,726
2023	132,681
2024	115,014
2025	(15,312)
Thereafter	(20,826)
Total	\$ 407,764



Section Seven:

Glossary of Terms

Glossary of Terms

Accrued Benefit

The benefit earned by a participant payable in the form of a monthly benefit commencing at normal retirement age.

Actuarial Accrued Liability

The actuarial present value of benefits earned as of the valuation date.

Actuarial Gain or Loss

The difference between the plan's actual experience and expected experience based on the actuarial assumptions used in the valuation.

Actuarial Value of Assets

The value of assets as determined by the actuary for the purpose of the valuation. This may or may not include a method of smoothing investment gains and losses over time.

Amortization

The spreading of liabilities or costs over a period of years. A plan's unfunded actuarial accrued liability is amortized over a period of years.

Entry Age Normal Actuarial Cost Method

An actuarial method for determining the annual normal cost and the actuarial accrued liability of a pension plan. Under this method, the annual normal cost is the level amount that would have to be contributed each year from the time each employee entered employment so that his pension will be fully funded by his assumed retirement age.

Normal Cost

That portion of the actuarial present value of plan benefits and expenses allocated to the valuation year.

Present Value

The value of a benefit payment or series of benefit payments determined as of the valuation date by the application of a particular set of actuarial assumptions. It is the single sum which reflects the time value of money (through discounts for investment yield) and the probabilities of payment (taking into account death, disability, withdrawal and age at retirement).

Unfunded Actuarial Accrued Liability

The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefit

A benefit that is not forfeited if the participant leaves employment.

