

Municipal Pensions Oversight Board

City of Princeton West Virginia Policemen's Pension and Relief Fund

GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2021

Bolton

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December 15, 2021

Mr. Danny Dillow Finance Director City of Princeton 800 Bee Street Princeton, WV 24740 Chief Tim Gray Pension Board Secretary City of Princeton Policemen's Pension and Relief Fund

Re: City of Princeton Policemen's Pension and Relief Fund GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2021

Dear Danny,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Princeton Policemen's Pension and Relief Fund to be included in the City's financial statements for FY 2021. The GASB 67 information has been provided as of June 30, 2021 (the GASB 68 measurement date for FY 2021).

Methodology, Reliance and Certification

This report is prepared for the City. The report contains the actuarial information to be included with the City's financial statements for the year ending June 30, 2021 (the City's fiscal year end date) as required by GASB 68. This information has been prepared for use in the financial statements of the City. This information is not intended for, nor should it be used for, any additional purposes.

The total pension liability is based on the July 1, 2020 actuarial valuation rolled forward to June 30, 2021. The methods, assumptions, and participant data used are detailed in the July 1, 2020 actuarial valuation report with the exception of the actuarial cost method. These calculations are based on the Entry Age Normal cost method as required by GASB 67. The calculation of the Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2021 is contained in the July 1, 2019 actuarial valuation report. The discount rate assumption may have changed if a blended rate was used for GASB purposes.

The included calculations are based on the valuation discount rate of 5.00%. The plan's expected gross rate of investment return of 5.00% has been blended with the 1.92% yield corresponding to the 20-year maturity on a municipal general obligation AA bond yield curve published on Fidelity's Fixed Income Market Data webpage as of June 30, 2021. The development of the blended discount rate is included within this report. Since the plan assets are estimated to be sufficient to cover benefit payments throughout the projection period, the liability discount rate used for this June 30, 2021 measurement date is equal to the plan's expected rate of investment return.

The long-term nominal expected rate of return on pension plan investments was determined using a methodology approved by the Municipal Pensions Oversight Board (MPOB) and is based on the funded status (current and projected), equity exposure, and funding policy.

The included calculations assume that the members and the City will continue to make all required contributions in accordance with the City's funding policy.

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Methodology, Reliance and Certification (cont.)

These calculations and comparisons with assets are applicable for the valuation date only. The future is uncertain, and the plan may become better funded or more poorly funded in the future. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. Other assumptions may be equally valid. The future is uncertain and the plan's actual experience will differ from the assumptions; the differences may be significant or material because the results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

The City is responsible for selecting the plan's funding policy based on four methods allowed for under state law. The actuarial valuation methods are chosen by the actuary in accordance with actuarial standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries and as required by GASB 67 & 68. The MPOB selects the asset valuation methods and assumptions; these selections are reviewed by a qualified actuary no less than every five years. The actuarial process. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The City and MPOB are solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

The City could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. That type of analysis would be a separate assignment.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the City or, in this case, a measure of accounting expense. It does not affect the cost of the plan. As the experience of the plan evolves, it is normal for the level of contributions and expense of the plan to change.

We make every effort to ensure that our calculations are accurately performed. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

The valuation was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.



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Methodology, Reliance and Certification (cont.)

This report is based on plan provisions, census data, and asset data submitted by the City. We have relied on this information for purposes of preparing this report, but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The City is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton Partners, Inc.'s actuaries have not provided any investment advice to the City.

The information in this report was prepared for the internal use of the City, the plan and their auditors in connection with our actuarial valuations of the pension plan as required by GASB 68. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, an assumption based on the expected long-term rate of return on plan investments is used. If the plan is expected to become insolvent, the return assumption is blended with a long-term municipal bond rate. Using a lower discount rate assumption, such as a rate solely based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2020 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,

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James Ritchie, ASA, EA, FCA, MAAA

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Jordan McClane, FSA, EA, FCA, MAAA





Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2021, were as follows:

Total pension liability	\$ 13,333,474
Plan fiduciary net position	(5,598,427)
Employer's net pension liability	\$ 7,735,047
Plan fiduciary net position as a percentage of the total pension liability	41.99%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2020 rolled forward to June 30, 2021 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50 percent
Salary increases	Rates vary by years of service
Single discount rate (BOY)	5.00%
Single discount rate (EOY)	5.00%
Investment rate of return (BOY)	5.00%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	5.00%, net of pension plan investment expense, including inflation
Long-term municpal bond rate (BOY)	2.45%
Long-term municpal bond rate (EOY)	1.92%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019
Year Fund is projected to be fully funded	2053
Year assets are expected to be depleted	N/A
for a closed plan	

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2020 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1%	Decrease 4.00%	Current scount Rate 5.00%	19	% Increase 6.00%
Employer's net pension liability	\$	9,898,907	\$ 7,735,047	\$	6,022,506



Changes in the Net Pension Liability

	lı Total Pension Liability (a)	ncrease (Decrease Plan Fiduciary Net Position (b)) Net Pension Liability (a) - (b)
Balances at 6/30/20	\$ 14,162,611	\$ 4,584,765	\$ 9,577,846
Changes for the year:			
Service cost	532,733		532,733
Interest	693,322		693,322
Changes of benefit terms	-		-
Differences between expected and actual experience	(91,047)		(91,047)
Changes of assumptions	(1,371,799)		(1,371,799)
Contributions - employer (including Premium Tax Allocation)		495,973	(495,973)
Contributions - member		105,798	(105,798)
Net investment income		1,004,417	(1,004,417)
Benefit payments, including refunds of member contributions	(592,346)	(592,346)	-
Administrative expense		(180)	180
Other		-	-
Net Changes	(829,137)	1,013,662	(1,842,799)
Balances at 6/30/21	\$ 13,333,474	\$ 5,598,427	\$ 7,735,047
Return on Investments		21.9%	



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2021

Note	Description	Amount
А	Service cost	\$ 532,733
В	Interest on the total pension liability	693,322
А	Changes of benefit terms	-
С	Differences between expected and actual experience	(37,216)
С	Changes of assumptions	115,265
А	Employee contributions	(105,798)
D	Projected earnings on pension plan investments	(229,468)
С	Differences between expected and actual earnings on	(138,990)
	plan investments	
А	Pension plan administrative expense	180
А	Other changes in fiduciary net position	-
	Total Pension Expense	\$ 830,028

Notes:

- A Provided in the Changes in Net Pension Liability exhibit.
- B Based on the following calculation:

	,	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	E	rojected arnings x (b) x (c)
Beginning total pension liability	\$	14,162,611	100%	5.00%	\$	708,131
Service cost (End of Year)		532,733	0%	5.00%		-
Benefit payments, including refunds of employee contributions		(592,346)	50%	5.00%		(14,809)
Total interest on the total pension liability					\$	693,322

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	A	mount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	E	rojected arnings x (b) x (c)
Beginning plan fiduciary net position	\$	4,584,765	100%	5.00%	\$	229,238
Employer contributions		495,973	50%	5.00%		12,399
Employee contributions		105,798	50%	5.00%		2,645
Benefit payments, including refunds of employee contributions		(592,346)	50%	5.00%		(14,809)
Administrative expense and other		(180)	50%	5.00%		(5)
Total Projected Earnings					\$	229,468



Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2021, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	red Outflows Resources	Deferred Inflows of Resources			
Differences between expected and actual experience	\$ 654,506	\$	386,129		
Changes of assumptions	563,330		1,852,180		
Net difference between projected and actual earnings	-				
on pension plan investments			517,688		
Total	\$ 1,217,836	\$	2,755,997		

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2022	\$ (607,809)
2023	(429,773)
2024	(171,265)
2025	(329,314)
2026	-
Thereafter	-

Changes in the Employer's Net Pension Liability and Related Ratios Last 10 Fiscal Years

Total pension liability	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Service cost	\$ 532,733	\$ 518,000	\$ 450,914	\$ 422,417	\$ 536,890	\$ 271,757	\$ 237,821	\$ 216,080	\$-	\$-
Interest	693,322	629,746	598,080	570,241	512,106	572,905	550,980	551,456	-	-
Changes of benefit terms	-	-	-	-		-	-			-
Differences between expected and actual experience	(91,047) 709,475	360,077	(166,623)	(1,151,572)	54,627	(188,795)	-	-	-
Changes of assumptions	(1,371,799) -	895,619	(797,790)	(2,073,963)	4,245,789	-	-	-	-
Benefit payments, including refunds of member contributions	(592,346) (579,045)	(588,893)	(439,700)	(491,271)	(510,173)	(479,794)	(499,192)	-	-
Net change in total pension liability	(829,137) 1,278,176	1,715,797	(411,455)	(2,667,810)	4,634,905	120,212	268,344		-
Total pension liability - beginning	14,162,611	12,884,435	11,168,638	11,580,093	14,247,903	9,612,998	9,492,786	9,224,442	-	-
Total pension liability - ending (a)	\$ 13,333,474	\$ 14,162,611	\$ 12,884,435	\$ 11,168,638	\$ 11,580,093	\$ 14,247,903	\$ 9,612,998	\$ 9,492,786	\$-	\$-

Plan fiduciary net position	2021		2020		2019	2018	2017	2016	2015		2014		2013	2012
Contributions - employer (including Premium Tax Allocation)	\$ 495,973	\$	467,950	\$	429,816	\$ 414,154	\$ 380,690	\$ 550,085	\$ 173,527	\$	367,187	\$	-	\$
Contributions - member	105,798		108,018		102,763	88,524	80,332	76,114	71,592		68,439		-	-
Net investment income	1,004,417		121,759		155,350	126,728	358,532	(82,353)	92,071		412,241		-	-
Benefit payments, including refunds of member contributions	(592,346)		(579,045)		(588,893)	(439,700)	(491,271)	(510,173)	(479,794)		(499,192)		-	-
Administrative expense	(180)		(180)		(24)	(180)	(180)	(180)	(308)		(232)		-	-
Other	 -	_	-	_	(180)	2	-	5,755	-	_	4	_	-	-
Net change in plan fiduciary net position	\$ 1,013,662	\$	118,502	\$	98,832	\$ 189,528	\$ 328,103	\$ 39,248	\$ (142,912)	\$	348,447	\$	-	\$ -
Plan fiduciary net position - beginning	4,584,765		4,466,263		4,367,431	4,177,903	3,849,800	3,810,552	3,947,819		3,605,017		-	
Plan fiduciary net position - ending (b)	\$ 5,598,427	\$	4,584,765	\$	4,466,263	\$ 4,367,431	\$ 4,177,903	\$ 3,849,800	\$ 3,804,907	\$	3,953,464	\$	-	\$ -
Employer's net pension liability - ending (a)-(b)	\$ 7,735,047	\$	9,577,846	\$	8,418,172	\$ 6,801,207	\$ 7,402,190	\$ 10,398,103	\$ 5,808,091	\$	5,539,322	\$	-	\$ -
Plan fiduciary net position as a percentage of the total pension liability	41.99%		32.37%		34.66%	39.10%	36.08%	27.02%	39.58%		41.65%		N/A	N/A
Covered payroll	\$ 1,227,240	\$	1,233,179	\$	1,034,188	\$ 933,350	\$ 901,229	\$ 927,966	\$ 781,090	\$	730,141		N/A	N/A
Employer's net pension liability as a percentage of covered payroll	630.28%		776.68%		813.99%	728.69%	821.34%	1120.53%	743.59%		758.66%		N/A	N/A
Expected average remaining service years of all participants	5.00		6.00		6.00	6.48	6.38	6.17	5.76		N/A		N/A	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2021.

Changes of assumptions: Changes were made to salary scale assumptions, pay spiking assumptions, inflation, cost-of-living increases, mortality rates, retirement rates, termination rates, disability rates, marital status, and non-spouse beneficiary loads.

*The Plan Fiduciary Net Position as of July 1, 2015, includes \$5,645, which was excluded from the Plan Fiduciary Net Position as of June 30, 2015.

*The Plan Fiduciary Net Position as of July 1, 2014, excludes \$5,645, which was included in the Plan Fiduciary Net Position as of June 30, 2014.

Schedule of Employer Contributions Last 10 Fiscal Years

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Actuarially determined contribution	\$ 972,925	\$ 853,954	\$ 715,674	\$ 631,477	\$ 674,315	\$ 675,818	\$ 434,627	\$ 421,933	\$ 475,653	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	260,418	243,500	227,500	212,600	198,672	185,674	173,527	162,175	201,565	-
State provided	235,555	224,450	202,316	201,554	182,018	183,874	180,537	205,012	169,853	-
Contribution deficiency (excess)	\$ 476,952	\$ 386,004	\$ 285,858	\$ 217,323	\$ 293,625	\$ 306,270	\$ 80,563	\$ 54,746	\$ 104,235	\$ -
Covered payroll	\$ 1,227,240	\$ 1,233,179	\$ 1,034,188	\$ 933,350	\$ 901,229	\$ 927,966	\$ 781,090	\$ 730,141	\$ 711,063	N/A
Contributions as a percentage of covered employee payroll	40.41%	37.95%	41.56%	44.37%	42.24%	39.82%	45.33%	50.29%	52.23%	N/A

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. Actuarial valuations are performed every year.

Methods and assumptions used to determine co	ntribution rates:
Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	30.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	5.00%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014

Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

In conformity with paragraph 33b of Statement 68, the effects of differences between projected and actual earnings on pension plan investments are recognized in pension expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

Year	betw and A on F	ifferences een Projected ctual Earnings Pension Plan vestments	Recognition Period (Years)	2017		2018		2019	2020	2021	2022	:	2023	2024	2025
2017	\$	(166,803)	5	\$ (33,361)	33,361) (33,361)		(33,361)	(33,361)	(33,359)						
2018		83,737	5		\$	16,747		16,747	16,747	16,747	16	6,749			
2019		61,592	5				\$	12,318	12,318	12,318	12	2,318	12,320		
2020		101,472	5						\$ 20,294	20,294	20	0,294	20,294	20,296	
2021		(774,949)	5							\$ (154,990)	(154	4,990)	(154,990)	(154,990)	(154,98
let increa	se (decr	ease) in pension	expense							\$ (138,990)	\$ (105	5,629)	\$ (122,376)	\$ (134,694)	\$ (154,98

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on Pension Plan Investments

					Balan June 3		
Year	tment Earnings than Projected (a)	nent Earnings Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	0	Deferred utflows of lesources (a) - (c)	I	Deferred nflows of esources (b) - (c)
2017	\$ -	\$ 166,803	\$ 166,803	\$	-	\$	-
2018	83,737	-	66,988		16,749		-
2019	61,592	-	36,954		24,638		-
2020	101,472	-	40,588		60,884		-
2021	-	774,949	154,990		-		619,959
				\$	102,271	\$	619,959

In conformity with paragraph 33a of Statement 68, the effects of differences between expected and actual experience are recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

B

	Differences						Increase	(Decrease) in	Pension Expense	Arising from th	e Recognition o	f Differences be	tween Expected	l and Actual Exp	erience				
Year	between Expected and Actual Experience	Recognition Period (Years)	Prior	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	-																		
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	(188,795)	5.758612					\$ (32,785)	(32,785)	(32,785)	(32,785)	(32,785)	(24,870)							
2016	54,627	6.167813						\$ 8,857	8,857	8,857	8,857	8,857	8,857	1,485					
2017	(1,151,572)	6.383004							\$ (180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(69,100)				
2018	(166,623)	6.480654								\$ (25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(12,357)			
2019	360,077	6.000000									\$ 60,013	60,013	60,013	60,013	60,013	60,012			
2020	709,475	6.000000										\$ 118,246	118,246	118,246	118,246	118,246	118,245		
2021	(91,047)	5.000000											\$ (18,209)	(18,209)	(18,209)	(18,209)	(18,211)		
Net increase	se (decrease) in per	sion expense											\$ (37,216)	\$ (44,588)	\$ 65,239	\$ 147,692	\$ 100,034	\$-	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)		ces at 0, 2021 Deferred Inflows of Resources (b) - (c)
Prior	\$-	\$ -	\$-	\$-	\$-
2012			-		-
2013		-	-		-
2014			-		-
2015	-	188,795	188,795	-	-
2016	54,627	-	53,142	1,485	-
2017		1,151,572	902,060	-	249,512
2018	-	166,623	102,844	-	63,779
2019	360,077	-	180,039	180,038	-
2020	709,475		236,492	472,983	-
2021	-	91,047	18,209		72,838
				\$ 654,506	\$ 386,129

In conformity with paragraph 33a of Statement 68, the effects of changes of assumptions should be recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

		Recognition						Increa	se (Decrease) in F	ension Expens	e Arising from th	e Effects of Ch	anges of Assum	ptions					
Year	Changes of Assumptions	Period (Years)	Prior	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	\$-	-																	-
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	-	5.758612																	
2016	4,245,789	6.167813						\$ 688,378	688,378	688,378	688,378	688,378	688,378	115,521					
2017	(2,073,963)	6.383004							\$ (324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(124,443)				
2018	(797,790)	6.480654								\$ (123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(59,172)			
2019	895,619	6.000000									\$ 149,270	149,270	149,270	149,270	149,270	149,269			
2020	-	6.000000																	
2021	(1,371,799)	5.000000											\$ (274,360)	(274,360)	(274,360)	(274,360)	(274,359)		
Net increase	e (decrease) in pen	sion expense											\$ 115,265	\$ (457,592)	\$ (372,636)	\$ (184,263)	\$ (274,359)	\$-	\$ -

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Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

					nces at 30, 2021
Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	ş -	\$-	\$-	\$ -	\$-
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	-	-	-	-
2016	4,245,789	-	4,130,268	115,521	-
2017	-	2,073,963	1,624,600	-	449,363
2018	-	797,790	492,412	-	305,378
2019	895,619	-	447,810	447,809	-
2020	-	-	-	-	-
2021		1,371,799	274,360	-	1,097,439
				\$ 563.330	\$ 1.852.180



Projection of Pension Plan's Fiduciary Net Position

	Gross Normal Cost (BOY)				Emp	loye	e Contrib	ution	s	Er	nplo		Normal	Cos	st			openses	_			 Emplo		Contribut	tions	6	Prem		ax Alloc	atior	<u>ו</u>		
			(BOY)			_			(BOY)					(В	OY)					(MOY)					(MOY)				(M	OY)		
Fiscal Year	Current Members		Future /lembers		Total		Current Iembers		Future <i>I</i> lembers		Total	Current Iembers			ture nbers		Total	urrent embers		Future embers		То	otal	Current Iembers		uture embers		Total	Current lembers		ture 1bers		Total
2021	\$ 412,867	\$	-	\$	412,867	\$	105,417	\$	-	\$	105,417	\$ 307,45	0 :	\$	-	\$	307,450	\$ 197	\$	-	\$	6	197	\$ 260,419	\$	-	\$	260,419	\$ 235,555	\$	-	\$	235,555
2022	\$ 387,063	\$	36,413	\$	423,476	\$	98,283	\$	9,727	\$	108,010	\$ 288,78	0 :	\$	26,686	\$	315,466	\$ 184	\$	18	в\$	6	202	\$ 251,285	\$	27,363	\$	278,648	\$ 239,257	\$	-	\$	239,257
2023	\$ 357,971	\$	80,426	\$	438,397	\$	90,977	\$	21,243	\$	112,220	\$ 266,99	4 :	\$	59,183	\$	326,177	\$ 184	\$	23	3\$	6	207	\$ 237,485	\$	60,668	\$	298,153	\$ 240,985	\$	-	\$	240,985
2024	\$ 334,446	\$	123,339	\$	457,785	\$	84,775	\$	32,390	\$	117,165	\$ 249,67	1 :	\$	90,949	\$	340,620	\$ 184	\$	33	3\$	6	217	\$ 225,796	\$	93,228	\$	319,024	\$ 251,143	\$	-	\$	251,143
2025	\$ 316,682	\$	163,220	\$	479,902	\$	79,706	\$	42,727	\$	122,433	\$ 236,97	6 :	\$1	20,493	\$	357,469	\$ 184	\$	38	в\$	6	222	\$ 217,849	\$	123,507	\$	341,356	\$ 256,868	\$	-	\$	256,868
2026	\$ 302,709	\$	200,774	\$	503,483	\$	75,445	\$	52,449	\$	127,894	\$ 227,26	4 :	\$1	48,325	\$	375,589	\$ 184	\$	44	4 \$	6	228	\$ 213,219	\$	152,032	\$	365,251	\$ 262,736	\$	-	\$	262,736
2027	\$ 290,955	\$	236,760	\$	527,715	\$	71,713	\$	61,757	\$	133,470	\$ 219,24	2 :	\$1	75,003	\$	394,245	\$ 178	\$	56	5\$	6	234	\$ 211,438	\$	179,381	\$	390,819	\$ 269,273	\$	-	\$	269,273
2028	\$ 280,049	\$	272,034	\$	552,083	\$	68,276	\$	70,849	\$	139,125	\$ 211,77	3	\$2	01,185	\$	412,958	\$ 177	\$	63	3\$	6	240	\$ 211,960	\$	206,216	\$	418,176	\$ 277,238	\$	-	\$	277,238
2029	\$ 267,471	\$	305,936	\$	573,407	\$	64,667	\$	79,600	\$	144,267	\$ 202,80	4 :	\$2	26,336	\$	429,140	\$ 181	\$	59	9\$	6	240	\$ 215,464	\$	231,984	\$	447,448	\$ 284,714	\$	-	\$	284,714
2030	\$ 254,742	\$	347,725	\$	602,467	\$	61,202	\$	90,249	\$	151,451	\$ 193,54	0 :	\$2	57,476	\$	451,016	\$ 180	\$	72	2 \$	6	252	\$ 214,863	\$	263,906	\$	478,769	\$ 293,221	\$	-	\$	293,221
2031	\$ 247,768	\$	384,658	\$	632,426	\$	58,787	\$	99,737	\$	158,524	\$ 188,98	1 :	\$2	84,921	\$	473,902	\$ 185	\$	73	3\$	6	258	\$ 220,253	\$	292,030	\$	512,283	\$ 299,973	\$	-	\$	299,973
2032	\$ 236,449	\$	418,326	\$	654,775	\$	55,708	\$	108,411	\$	164,119	\$ 180,74	1 :	\$3	09,915	\$	490,656	\$ 178	\$	86	5\$	6	264	\$ 230,489	\$	317,654	\$	548,143	\$ 306,892	\$	-	\$	306,892
2033	\$ 219,565	\$	457,801	\$	677,366	\$	51,663	\$	118,432	\$	170,095	\$ 167,90	2 :	\$3	39,369	\$	507,271	\$ 189	\$	82	2 \$	6	271	\$ 238,681	\$	347,832	\$	586,513	\$ 314,810	\$	-	\$	314,810
2034	\$ 206,200	\$	498,701	\$	704,901	\$	48,232	\$	128,796	\$	177,028	\$ 157,96	в :	\$3	69,905	\$	527,873	\$ 187	\$	91	1 \$	6	278	\$ 248,438	\$	379,131	\$	627,569	\$ 324,299	\$	-	\$	324,299
2035	\$ 188,014	\$	534,380	\$	722,394	\$	44,051	\$	137,749	\$	181,800	\$ 143,96	3	\$ 3	96,631	\$	540,594	\$ 185	\$	100	D \$	6	285	\$ 264,973	\$	406,526	\$	671,499	\$ 333,150	\$	-	\$	333,150
2036	\$ 153,230	\$	577,142	\$	730,372	\$	37,350	\$	148,169	\$	185,519	\$ 115,88	0 9	\$4	28,973	\$	544,853	\$ 183	\$	116	5\$	6	299	\$ 278,821	\$	439,683	\$	718,504	\$ 351,569	\$	-	\$	351,569
2037	\$ 147,954	\$	630,956	\$	778,910	\$	35,724	\$	161,622	\$	197,346	\$ 112,23	0 :	\$4	69,334	\$	581,564	\$ 181	\$	125	5\$	6	306	\$ 287,750	\$	481,049	\$	768,799	\$ 363,599	\$	-	\$	363,599
2038	\$ 134,194	\$	667,610	\$	801,804	\$	32,588	\$	170,675	\$	203,263	\$ 101,60	6 3	\$4	96,935	\$	598,541	\$ 186	\$		в\$	6	314	\$ 313,280	\$	509,335	\$	822,615	\$ 372,053	\$	-	\$	372,053
2039	\$ 110,581	\$	717,488	\$	828,069	\$	27,430	\$	182,390	\$	209,820	\$ 83,15			35,098		618,249	\$ 191	\$	138		6	329	\$	•	,	\$	880,198	\$ 	\$	-	\$	389,843
2040	\$ 94,184	\$	771,662	\$	865,846	\$	23,594	\$	195,018	\$	218,612	\$ 70,59	0 :	\$5	76,644	\$	647,234	\$ 189	\$	148	в\$	6	337	\$ 350,780	\$	591,032	\$	941,812	\$ 398,929	\$	-	\$	398,929
2041	\$ 81,517	\$		\$	898,703	\$	20,363	\$	205,308	\$	225,671	\$ 61,15			11,878			\$ 194			1 \$	6	345	\$				1,007,739	\$ 408,242	\$	-	\$	408,242
2042	\$ 67,240	\$	865,390	\$	932,630	\$	16,761	\$	216,024	\$	232,785	\$ 50,47	9 :	\$6	49,366	\$	699,845	\$ 191	\$	170	D \$	6	361	\$ 412,709	\$	665,572	\$	1,078,281	\$ 417,788	\$	-	\$	417,788
2043	\$ 57,108	•	,	\$	966,711	\$	14,225	\$	226,361	\$	240,586	\$ 42,88		•	83,242			\$ 196			4 \$		370	\$ 453,472		,		1,153,761	\$ 439,373		-	\$	439,373
2044	\$ 47,638	\$	- ,	\$	995,483	\$	11,884	\$	235,648	\$	247,532	\$ 35,75		•	12,197		747,951	\$ 193		186		6	379	\$	•	- / -	•	1,234,524	\$ 449,679	\$	-	\$	449,679
2045	\$ 34,666	•			1,019,741	\$	8,622	\$	244,043	\$	252,665	\$ 26,04		•	41,032	•	767,076	\$ 190		198			388	\$	•			1,320,941	\$ 	\$	-	\$	464,804
2046	\$ 21,440		1,031,325			\$	5,249	\$	254,142		259,391	\$ 16,19	1 :	\$7	77,183		793,374	\$ 195			1 \$	5	406	\$				1,413,407	\$ 495,254	\$	-	\$	495,254
2047	\$ 14,021	•			1,091,249	\$	3,395	\$	264,737	\$	268,132	\$ 10,62			12,491	•	823,117	\$ 191		225			416	\$ 	•		•	1,512,345	\$ - / -	\$	-	\$	514,148
2048	\$ 10,199		1,121,810			\$	2,471	\$	275,389	\$	277,860	\$ 7,72			46,421			\$ 187		239			426	\$				1,618,209	\$ 544,157		-	\$	544,157
2049	\$ 6,521		1,165,629			\$	1,556	\$	285,706	\$	287,262	\$ 4,96			79,923			\$ 192			5\$		437	\$				1,731,484	\$, .	\$	-	\$	559,410
2050	\$ 3,386				1,214,224	\$	773	\$	296,333	\$	297,106	\$ 2,61			14,505			\$ 187		261			448	\$	•			1,852,688	\$,	\$	-	\$	757,067
2051	\$ 1,893	•	1,256,604		, , .	\$	422	\$	307,294	\$	307,716	\$ 1,47			49,310			\$ 192		267	•		459	\$,,	•		•	1,982,376	\$ 780,212		-		780,212
2052	\$ 1,076		1,302,880			\$	234	\$	318,456	\$	318,690	\$ 84			84,424			\$ 187		293			480					2,121,142	\$ 815,719	\$	-	\$	815,719
2053	\$ 629	•	1,351,802			\$	133	\$	330,244	\$	330,377	\$ 49			21,558		1,022,054	\$ 182	•		D\$		492	\$ 	•			1,944,213	\$ -	\$	-	\$	-
2054			1,400,965			\$	72		342,147	\$	342,219	\$					1,059,092	\$ 187			7 \$		504	\$				1,085,751	\$ -	\$	-	\$	-
2055	\$ 135	•	, . ,		1,451,331	\$	28	\$	354,384	\$	354,412	\$ 10			96,812		1,096,919	\$ 181	•	336			517	\$	•	, , -	•	1,124,525	\$	\$	-	\$	-
2056	\$ 55		1,502,325			\$	11		366,920	\$	366,931	\$ 4					1,135,449	\$ 186		344			530	\$				1,164,020	\$ -	\$	-	\$	-
2057	\$ 34	•			1,554,914	\$		\$	379,871	\$	379,878	\$ 2			75,009		1,175,036	\$ 179		364	•		543	\$				1,204,597	\$ -	\$	-	\$	-
2058	\$ 21		1,608,612			\$	4	\$	393,140	\$	393,144	\$ 1			15,472		1,215,489	\$ 172		385		·	557	\$				1,246,063	\$ -	\$	-	\$	-
2059	\$-		1,664,933			\$	-	\$	406,972		406,972	\$ -			57,961		1,257,961	\$ 176			5\$		571	\$, ,		1,289,598	\$ -	\$	-	\$	-
2060	\$-				1,723,985	\$	-	\$	421,462	\$	421,462	\$ -			02,523		1,302,523	\$ 168		429			597	\$				1,335,286	\$ -	\$	-	\$	-
2061	\$-	\$	1,781,978	\$ 1	1,781,978	\$	-	\$	435,801	\$	435,801	\$ -	:	\$ 1,3	46,177	\$	1,346,177	\$ 172	\$	44(D \$	6	612	\$ 172	\$1	,379,861	\$	1,380,033	\$ -	\$	-	\$	-



Projection of Pension Plan's Fiduciary Net Position

		Actu	arial Accrued Liability (I	воү)						Cl	osed	d Group Asset Projection	on		
Fiscal Year	Cu	rrent Members	Future Members		Total	Fi	duciary Net Position (BOY)	Funded Ratio (BOY)		Projected EEC Contributions (MOY)	Pro	ojected ER Contrib + Premium Tax (MOY)	Projected BP (MOY)	Projected Admin Expenses (MOY)	Projected Investment Earnings
2021	\$	12,863,922	\$-	\$	12,863,922	\$	4,584,765	35.64%	\$	108,020	\$	495,974	\$ 668,227	\$ 197	\$ 227,647
2022	\$	13,255,900	\$-	\$	13,255,900	\$	4,747,982	35.82%	\$	100,710	\$	490,542	\$ 639,241	\$ 184	\$ 236,209
2023	\$	13,670,084	\$ 37,669	\$	13,707,753	\$	4,936,018	36.11%	\$	93,224	\$	478,470	\$ 661,593	\$ 184	\$ 244,576
2024	\$	14,051,527	\$ 121,730	\$	14,173,257	\$	5,090,511	36.23%	\$	86,869	\$	476,939	\$ 676,447	\$ 184	\$ 251,739
2025	\$	14,412,120	\$ 252,319	\$	14,664,439	\$	5,229,427	36.28%	\$	81,674	\$	474,717	\$ 684,636	\$ 184	\$ 258,300
2026	\$	14,763,699	\$ 427,828	\$	15,191,527	\$	5,359,299	36.30%	\$	77,308	\$	475,955	\$ 689,724	\$ 184	\$ 264,590
2027	\$	15,112,972	\$ 647,440	\$	15,760,412	\$	5,487,244	36.31%	\$	73,484	\$	480,711	\$ 692,996	\$ 178	\$ 270,930
2028	\$	15,464,014	\$ 911,331	\$	16,375,345	\$	5,619,195	36.34%	\$	69,962	\$	489,198	\$ 694,769	\$ 177	\$ 277,607
2029	\$	15,819,340	\$ 1,220,239	\$	17,039,579	\$	5,761,016	36.42%	\$	66,264	\$	500,178	\$ 705,217	\$ 181	\$ 284,619
2030	\$	16,168,519	\$ 1,572,313	\$	17,740,832	\$	5,906,679	36.53%	\$	62,713	\$	508,084	\$ 716,046	\$ 180	\$ 291,743
2031	\$	16,510,695	\$ 1,976,858	\$	18,487,553	\$	6,052,992	36.66%	\$	60,239	\$	520,226	\$ 718,336	\$ 185	\$ 299,240
2032	\$	16,860,311	\$ 2,432,764	\$	19,293,075	\$	6,214,176	36.86%	\$	57,084	\$	537,381	\$ 733,266	\$ 178	\$ 307,277
2033	\$	17,200,224	\$ 2,933,985	\$	20,134,209	\$	6,382,474	37.11%	\$	52,939	\$	553,491	\$ 748,748	\$ 189	\$ 315,604
2034	\$	17,523,540	\$ 3,485,766	\$	21,009,306	\$	6,555,571	37.41%	\$	49,423	\$	572,737	\$ 758,547	\$ 187	\$ 324,406
2035	\$	17,838,948	\$ 4,093,398	\$	21,932,346	\$	6,743,403	37.80%	\$	45,139	\$	598,123	\$ 780,196	\$ 185	\$ 333,784
2036	\$	18,128,847	\$ 4,746,272	\$	22,875,119	\$	6,940,068	38.28%	\$	38,272	\$	630,390	\$ 818,138	\$ 183	
2037	\$	18,357,839	\$ 5,443,204	\$	23,801,043	\$	7,133,718	38.86%	s	36,606	\$	651,349	\$ 819,126	\$ 181	\$ 353,442
2038	\$	18,591,728			24,809,537	\$	7,355,808	39.56%	ŝ	33,393		685,333			
2039	\$	18,804,314			25,847,118	\$	7,601,978	40.43%	ŝ	28,107		721,591			
2040	\$	18,969,735			26,889,554	\$	7,859,187	41.43%	ŝ	24,177		749,709			
2041	\$	19,106,505			27,970,609	\$	8,134,340	42.57%	ŝ	20,866		788,842			
2042	\$	19,213,783			29,079,297	\$	8,436,922	43.91%	ŝ	17,175		830,497			
2042	\$	19,293,241			30,217,289	\$	8,775,345	45.48%	ŝ	14,576		892.845			
2044	\$	19,356,678			31,389,236	\$	9,182,553	47.44%	s	12,177		954,232			• • • • • • • • • • • • • • • • • • • •
2044	\$	19,406,699			32,580,150	\$	9,663,925	49.80%	\$	8,835		1,026,215			
2045	φ \$	19,421,932			33,747,194	\$ \$	10,216,036	52.60%	\$	5.379		1,112,074			
2040	у \$	19,407,924			34,903,987	\$	10,864,071	55.98%	s s	3,479	•	1,193,712			
2047	э \$	19,386,254			36,084,090	э \$	11,627,046	59.98%	э S	2,532		1,193,712			
	э S							59.98% 64.74%	ې ۲						
2049	ծ Տ	19,368,926			37,306,101	\$ \$	12,540,230		ծ Տ	1,594		1,388,996			
2050	•	19,354,159			38,564,059		13,601,915	70.28%	+	792		1,672,405			
2051	\$	19,347,412			39,863,277	\$	15,018,326	77.62%	\$	432		1,789,568			
2052	\$	19,355,122			41,210,669	\$	16,641,601	85.98%	\$	240	•	1,927,834			
2053	\$	19,380,712			42,609,768	\$	18,505,880	95.49%	\$	136	•	897,118			
2054	\$	19,426,646			44,068,274	\$	19,426,638	100.00%	\$	74		468			
2055	\$	19,494,881			45,585,808	\$	19,494,873	100.00%	\$	29	•	291			
2056	\$	19,587,137			47,162,735	\$	19,587,131	100.00%	\$	11		232			
2057	\$	19,705,199			48,801,385	\$	19,705,193	100.00%	\$		\$	207			
2058	\$	19,850,687			50,500,830	\$	19,850,681	100.00%	\$	4	\$	190			
2059	\$	20,025,049			52,258,929	\$	20,025,043	100.00%	\$	-	\$	177			
2060	\$	20,229,665			54,081,118	\$	20,229,658	100.00%	\$	-	\$	168			
2061	\$	20,465,925	\$ 35,502,848	\$	55,968,773	\$	20,465,918	100.00%	\$	-	\$	172	\$ 735,831	\$ 172	\$ 1,005,125



Projection of Pension Plan's Fiduciary Net Position

		Calc	ulation of Single Ec	uivalent Rate		
Fiscal Year	"Funded" Portion BP	of "Unfunded" Portion o BP	^f PV of "Funded	BP PV of "Unfur	nded" BP	PV of BP Using a Single DR
2021	\$ 668,	227 \$ -	\$ 65	52,123 \$	-	\$ 652,123
2021	\$ 639,			94,129 \$		
2022	\$ 039, \$ 661,			35,622 \$		\$
2023	\$ 676,			70,258 \$		\$ 570,258
2024	\$ 684,			19,677 \$		\$
2026	\$ 689,			27,393 \$		\$ 527,393
2027	\$ 692,)4,662 \$		\$ 504,662
2028	\$ 694,			31,860 \$		\$ 481,860
2029	\$			5,815 \$		\$ 465,815
2030	\$ 716,			50,446 \$		\$ 450,446
2031	\$ 718,			80,368 \$		\$ 430,368
2032	\$ 733,			8,393 \$		\$ 418,393
2033	\$ 748,)6,883 \$		\$ 406,883
2034	\$ 758,			92,579 \$		\$ 392,579
2035	\$ 780,			34,555 \$		\$ 384,555
2036	\$ 818,			34,054 \$		\$ 384,054
2037	\$ 819,			6,208 \$		\$ 366,208
2038	\$ 837,			56,477 \$		\$ 356,477
2039	\$ 869,			52,561 \$		\$ 352,561
2040	\$ 888,			13,199 \$		\$ 343,199
2041	\$ 911,			35,123 \$		\$ 335,123
2042	\$ 928,			25,384 \$		\$ 325,384
2043	\$ 938,			2,935 \$		\$ 312,935
2044	\$ 944,			0,094 \$		\$ 300,094
2045	\$ 967,			92,793 \$		\$ 292,793
2046	\$ 983,			33,383 \$		\$ 283,383
2047	\$ 982,			69,667 \$		\$ 269,667
2048	\$			54,418 \$		\$
2049	\$ 966,			10,532 \$		\$ 240,532
2050	\$			26,289 \$		\$ 226,289
2051	\$ 938,			1,908 \$		\$ 211,908
2052	\$ 920,			97,966 \$		\$ 197,966
2053	\$ 901,			34,635 \$		\$ 184,635
2054	\$ 881,			71,978 \$		\$ 171,978
2055	\$ 861,			60,012 \$		\$ 160,012
2056	\$ 840,			18,719 \$		\$ 148,719
2057	\$ 819,			38,094 \$		\$ 138,094
2058	\$ 798,			28,134 \$		\$ 128,134
2059	\$			8,817 \$		\$ 118,817
2060	\$			0,117 \$		\$ 110,117
2000	\$			02,003 \$		\$ 102,003