

GASB68 Actuarial Information for the Measurement Period Ending 06/30/2019



Submitted by:

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October 21, 2019

Ms. Barbara Hughes City Treasurer City of St. Albans 51 Sixth Avenue St. Albans, WV 25177 Lieutenant Philip Bass
Pension Board Secretary
City of St. Albans, West Virginia
Policemen's Pension and Relief Fund

Re: City of St. Albans, West Virginia Policemen's Pension and Relief Fund - GASB68 Actuarial Information for the Measurement Period Ending June 30, 2019

#### Dear Barbara

The following report contains the GASB 67 and GASB 68 actuarial information for the City of St. Albans Policemen's Pension and Relief Fund to be included in the City's financial statements for FY2019. The GASB67 information has been provided as of the June 30, 2019 (the GASB 68 measurement date for FY2019).

#### 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, 2019 (the City's fiscal year end date) as required by GASB68. 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, 2018 actuarial valuation rolled forward to June 30, 2019. The methods, assumptions, and participant data used are detailed in the July 1, 2018 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 GASB67. The calculation of the Actuarially Determined Contribution for the fiscal year ended June 30, 2019 is contained in the July 1, 2018 actuarial valuation report.

The included calculations are based on a blended discount rate of 5.50%. The plan's expected gross rate of investment return of 5.5% has been blended with the 3.13% 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, 2019. The development of the blended discount rate is included within this report.

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.

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.) The long-term nominal expected rate of return is based on the fund's current funding ratio, liquidity ratio, equity exposure and expected funded status in 15 years.

Ms. Barbara Hughes October 21, 2019 Page 2

#### 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 those assumptions; these differences may be significant or material because these 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 slections are reviewed by a qualified actuary no less than every five years. The actuary shall provide a report to the oversight board with recommendations on any changes to 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. This 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. These calculations are complex. Despite our best efforts, we may make a mistake. 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.



Ms. Barbara Hughes October 21, 2019 Page 3

#### 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 GASB68. 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, 2018 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,

James Ritchie, ASA, EA, FCA, MAAA

Jordan McClane, FSA, EA, MAAA



Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2019, were as follows:

Total pension liability	\$	16,911,753
Plan fiduciary net position	<u></u>	(7,350,349)
Employer's net pension liability	\$	9,561,404
Plan fiduciary net position as a percentage of the total pension liability		43.46%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2018 rolled forward to June 30, 2019 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation 2.75 percent

Salary increases Rates vary by years of service

Single discount rate (BOY) 5.5000% Single discount rate (EOY) 5.5000%

Investment rate of return 5.50 percent, net of pension plan investment expense, including inflation

Long-term municpal bond rate (BOY) 3.62% Long-term municpal bond rate (EOY) 3.13%

Mortality RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014

Year Fund is projected to be fully funded 2054 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, 2018 actuarial valuation report.

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

	1% I	Decrease		Current	10	% Increase
		4.50%	Dis	5.50%	•	6.50%
Employer's net pension liability	\$	12,292,229	\$	9,561,404	\$	7,395,746

# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2019 Measurement Date



# Changes in the Net Pension Liability

l Total Pension Liability (a)	ncrease (Decrease Plan Fiduciary Net Position (b)	) Net Pension Liability (a) - (b)
\$ 15,502,306	\$ 7,014,938	\$ 8,487,368
517,224		517,224
832,642		832,642
-		-
786,297		786,297
-		-
	564,127	(564,127)
	110,461	(110,461)
	389,083	(389,083)
(726,716)	(726,716)	-
	(794)	794
	(750)	750
1,409,447	335,411	1,074,036
\$ 16,911,753	\$ 7,350,349	\$ 9,561,404
	5.69/	
	Total Pension Liability (a)  \$ 15,502,306  517,224 832,642 - 786,297 - (726,716)	Liability (a) (b)  \$ 15,502,306 \$ 7,014,938  517,224 832,642 786,297 - 564,127 110,461 389,083 (726,716) (726,716) (794) (750) 1,409,447 335,411

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2019

Note	Description	Amount
Α	Service Cost	\$ 517,224
В	Interest on the total pension liability	832,642
Α	Changes of benefit terms	-
С	Differences between expected and actual experience	59,560
С	Changes of assumptions	332,201
Α	Employee contributions	(110,461)
D	Projected earnings on pension plan investments	(384,346)
С	Differences between expected and actual earnings on plan investments	162,100
Α	Pension plan administrative expense	794
Α	Other changes in fiduciary net position	750
	Total Pension Expense	\$ 1,410,464

#### Notes:

A Provided in the Changes in Net Pension Liability exhibit.

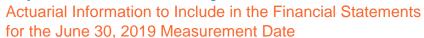
B Based on the following calculation:

	,	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	E	rojected arnings x (b) x (c)
Beginning total pension liability	\$	15,502,306	100%	5.50%	\$	852,627
Service Cost (End of Year)		517,224	0%	5.50%		-
Benefit payments, including refunds of employee contributions		(726,716)	50%	5.50%		(19,985)
Total interest on the total pension liability					\$	832,642

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	F	Amount for Period	Portion of Period	Projected Rate of Return	rojected arnings
		(a)	(b)	(c)	x (b) x (c)
Beginning plan fiduciary net position	\$	7,014,938	100%	5.50%	\$ 385,822
Employer contributions		564,127	50%	5.50%	15,513
Employee contributions		110,461	50%	5.50%	3,038
Benefit payments, including refunds of employee contributions		(726,716)	50%	5.50%	(19,985)
Administrative expense and other		(1,544)	50%	5.50%	(42)
Total Projected Earnings					\$ 384,346





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

At June 30, 2019, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	red Outflows Resources	erred Inflows Resources
Differences between expected and actual experience	\$ 673,974	\$ 149,601
Changes of assumptions	877,952	-
Net difference between projected and actual earnings	134,683	
on pension plan investments		-
Total	\$ 1,686,609	\$ 149,601

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:	
2020	\$ 497,937
2021	415,099
2022	372,163
2023	125,832
2024	125,977
Thereafter	-

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date

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



Total pension liability		2019		2018		2017		2016		2015		2014		2013		2012		2011		2010
Service cost	\$	517,224	\$	469,689	\$	438,163	\$	315,503	\$	325,644	\$	317,661	\$	-	\$	-	\$	-	\$	
Interest		832,642		813,353		784,070		746,053		715,104		710,736		-		-		-		-
Changes of benefit terms		-		-		-		-		-		-		-		-		-		-
Differences between expected and actual experience		786,297		(47,934)		34,579		(72,607)		(380,568)		-		-		-		-		-
Changes of assumptions		-		-		-		2,206,756		-		-		-		-		-		-
Benefit payments, including refunds of member contributions		(726,716)		(668,242)		(647,064)		(525,224)		(448,618)		(402,960)		-		-		-		-
Net change in total pension liability		1,409,447		566,866		609,748		2,670,481		211,562		625,437		-		-		-		-
Total pension liability - beginning		15,502,306		14,935,440		14,325,692		11,655,211		11,443,649		10,818,212		-		-		-		-
Total pension liability - ending (a)	\$	16,911,753	\$	15,502,306	\$	14,935,440	\$	14,325,692	\$	11,655,211	\$	11,443,649	\$	-	\$	-	\$	-	\$	-
Plan fiduciary net position		2019		2018		2017		2016		2015		2014		2013		2012		2011		2010
Contributions - employer (including Premium Tax Allocation)	\$	564,127	\$	534,713	\$	510,203	\$	474,110	\$	443,192	\$	609,472	\$	-	\$	-	s	-	\$	-
Contributions - member	•	110,461	•	115,929	•	105,346	•	116,759	•	113,195	•	103,725	•	-	•	-	•	-	•	-
Net investment income		389,083		188,982		563,267		(147,927)		124,608		553,537		-		-		-		-
Benefit payments, including refunds of member contributions		(726,716)		(668,242)		(647,064)		(525,224)		(448,618)		(402,960)		-		-		-		-
Administrative expense		(794)		(750)		(600)		(600)		(600)		(650)		-		-		-		-
Other		(750)		1,118		` -		` -		` -		` -		-		-		-		-
Net change in plan fiduciary net position	\$	335,411	\$	169,514	\$	531,152	\$	(82,882)	\$	231,777	\$	863,124	\$	-	\$	-	\$	-	\$	-
Plan fiduciary net position - beginning		7,014,938		6,845,425		6,314,273		6,397,155		6,165,378		5,302,254		-		-		-		-
Plan fiduciary net position - ending (b)	\$	7,350,349	\$	7,014,938	\$	6,845,425	\$	6,314,273	\$	6,397,155	\$	6,165,378	\$	-	\$	-	\$	-	\$	-
Employer's net pension liability - ending (a)-(b)	\$	9,561,404	\$	8,487,368	\$	8,090,015	\$	8,011,419	\$	5,258,056	\$	5,278,271	\$	-	\$	-	\$		\$	
Plan fiduciary net position as a percentage of the																				
total pension liability		43.46%		45.25%		45.83%		44.08%		54.89%		53.88%		0.00%		0.00%		0.00%		0.00%
Covered payroll	\$	1,259,753	\$	1,133,893	\$	1,078,997	\$	1,154,810	\$	1,182,275	\$	1,137,414	\$	-	\$	-	\$	-	\$	-
Employer's net pension liability as a percentage of																				
covered payroll		758.99%		748.52%		749.77%		693.74%		444.74%		464.06%		0.00%		0.00%		0.00%		0.00%

Notes to Schedule:

Benefit changes: There were no changes for FY2019.

Changes of assumptions: The discount rate changed from 5.5000% to 5.5000%.

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date

Schedule of Employer Contributions

Last 10 Fiscal Years



	2019	2018	2017	2016	2015	2014	2013	2012		2011		2010
Actuarially determined contribution	\$ 888,848	\$ 784,264	\$ 743,605	\$ 706,172	\$ 467,987	\$ 478,959	\$ 422,787	\$	\$	;	-	\$ -
Contributions in relation to the actuarially determined contribution												
Employer provided	324,419	303,196	283,360	264,823	247,498	231,307	226,175				-	-
State provided	 239,708	 231,517	 226,843	 209,287	 195,694	378,165	180,588		_		-	 -
Contribution deficiency (excess)	\$ 324,721	\$ 249,551	\$ 233,402	\$ 232,062	\$ 24,795	\$ (130,513)	\$ 16,024	\$	\$	•	-	\$ -
Covered payroll	\$ 1,259,753	\$ 1,133,893	\$ 1,078,997	\$ 1,154,810	\$ 1,182,275	\$ 1,137,414	\$ 953,653	\$	\$	ì	-	\$ -
Contributions as a percentage of covered employee payroll	44.78%	47.00%	47.00%	41.00%	37.00%	54.00%	43.00%	0.00%		0.0	00%	0.00%

#### 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 contribution rates:

Actuarial cost method Entry Age Normal
Amortization method Level Dollar
Remaining amortization period 32.5 years
Asset valuation method Market Value
Inflation 2.75 percent

Salary increases Rates vary by years of service

Investment rate of return 5.50 percent, 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

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date



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	Differences between Projected and Actual Earnings on Pension Plan Investments		between Projected and Actual Earning on Pension Plan Investments		Recognition Period (Years)	2015	2016	2017	2018	2019	2020		2021	2022	2023
2015	\$	279,625	5	\$ 55,925	55,925	55,925	55,925	55,925							
2016		565,856	5		\$ 113,171	113,171	113,171	113,171	113,1	72					
2017		(217,223)	5			\$ (43,445)	(43,445)	(43,445)	(43,4	145)	(43,443)				
2018		186,981	5				\$ 37,396	37,396	37,3	396	37,396	37,397			
2019		(4,737)	5					\$ (947)	(9	947)	(947)	(947)	(949		
let increa	se (dec	rease) in pension	expense					\$ 162,100	\$ 106,1	76	\$ (6,994)	\$ 36,450	\$ (949		

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)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	O R	Deferred utflows of esources (a) - (c)	í l	Deferred inflows of esources (b) - (c)
2015	\$ 279,625	\$ -	\$ 279,625	\$	-	\$	-
2016	565,856	-	452,684		113,172		-
2017	-	217,223	130,335		-		86,888
2018	186,981	-	74,792		112,189		-
2019	-	4,737	947		-		3,790
				\$	225,361	\$	90,678

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date



Schedule of Differences between Expected and Actual Experience

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.

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2014	Increas	e (Decrease) in 2016	Pension Exper 2017	se Arising fro	m the R	ecognition o	of Differences	betwee	en Expected	Actual Exp 2022	ce 2023	2024	Therea	after
Prior	\$ -		\$ -	-	-	-	-		-	-		-	-	-	-	-		
2014	-	1		\$ -														
2015	(380,568)	6.483253			\$ (58,700)	(58,700)	(58,700)	(58,70	0)	(58,700)	(58,70	0)	(28,368)					
2016	(72,607)	6.642826				\$ (10,930)	(10,930)	(10,93	(0)	(10,930)	(10,93	0)	(10,930)	(7,027)				
2017	34,579	6.544158					\$ 5,284	5,28	4	5,284	5,28	4	5,284	5,284	2,875			
2018	(47,934)	6.709907						\$ (7,14	4)	(7,144)	(7,14	4)	(7,144)	(7,144)	(7,144)	(5,070)		-
2019	786,297	6							\$	131,050	131,05	)	131,050	131,050	131,050	\$ 131,047		-
Net increa	se (decrease) in p	ension expense							\$	59,560	\$ 59,56	) \$	89,892	\$ 122,163	\$ 126,781	\$ 125,977	\$	-

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

					Balan June 3		
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Oi R	Deferred utflows of esources (a) - (c)	In Re	Deferred of lows of desources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$	-	\$	-
2014	-	-	-		-		-
2015		380,568	293,500		-		87,068
2016		72,607	43,720		-		28,887
2017	34,579	-	15,852		18,727		-
2018	-	47,934	14,288		-		33,646
2019	786,297	-	131,050		655,247		-
				\$	673,974	\$	149,601

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date



#### Schedule of Changes of Assumptions

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	Pension Expen	se Arising from	the Effects of Cl	nanges of Assum	nptions			
Year	Changes of Assumptions	Period (Years)	Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Thereafter
	Assumptions	(Tears)	PHOI	2014	2015	2010	2017	2010	2019	2020	2021	2022	2023	2024	Therealter
Prior	\$ -		\$ -	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	1		\$ -											
2015	-	6.483253			\$ -	-	-	-	-	-	-				
2016	2,206,756	6.642826				\$ 332,201	332,201	332,201	332,201	332,201	332,201	213,550			
2017	-	6.544158					\$ -	-	-	-	-	-	-		
2018	-	6.709907						\$ -	-	-	-	-	-	-	-
2019	-	6							\$ -	-	-	-	-	\$ -	-
Net increa	se (decrease) in pe	ension expense							\$ 332,201	\$ 332,201	\$ 332,201	\$ 213,550	\$ -	\$ -	\$ -

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

									ces at 0, 2019	
Year	Increases in t Total Pensio Liability (a)		Decreases in the Total Pension Liability (b)		Pension Exp June :	ecognized in bense Through 30, 2019 (c)	Ot Re	Deferred utflows of esources (a) - (c)	Inflo Reso	erred ws of urces - (c)
Prior	\$	- \$		-	\$	-	\$	-	\$	-
2014		-		-		-		-		-
2015		-		-		-		-		-
2016	2,206,756	6		-		1,328,804		877,952		-
2017		-		-		-		-		-
2018		-		-		-		-		-
2019		-		-		-		-		-
							\$	877,952	\$	-

Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date

Projection of Pension Plan's Fiduciary Net Position (Dollar amounts in thousands)



	Gı		Normal Co (BOY)	st		Empl	loye	e Contribu	ution	is	Em	oloyer No	rma	l Cost	(BOY)	Expe	nses		(MOY)	E	mployer Cor	itrib	utions	(MOY)	Pre	emium Tax	Alloc	ation	(MOY)
Fiscal Year	Current embers		Future embers	1	Total	Current lembers		Future Members		Total		Current embers	1	Future Members	Total		rrent nbers	-uture embers	Total		Current Members		Future embers	Total		Current lembers		uture mbers	Total
2019	\$ 490,260	\$	-	\$	490,260	\$ 116,562	\$	-	\$	116,562	\$	373,698	\$	-	\$ 373,698	\$	4,581	\$	\$ 4,581	\$	324,420	\$	-	\$ 324,420	\$	239,708	\$	-	\$ 239,708
2020	\$ 483,057	\$	23,263	\$	506,320	\$ 114,876	\$	5,570	\$	120,446	\$	368,181	\$	17,693	\$ 385,874	\$	4,836	\$ -	\$ 4,836	\$	328,956	\$	18,173	\$ 347,129	\$	269,689	\$	-	\$ 269,689
2021	\$ 470,750	\$	62,972	\$	533,722	\$ 111,992	\$	15,087	\$	127,079	\$	358,758	\$	47,885	\$ 406,643	\$	4,859	\$ 326	\$ 5,185	\$	321,918	\$	49,510	\$ 371,428	\$	276,025	\$	-	\$ 276,025
2022	\$ 463,588	\$	96,444	\$	560,032	\$ 110,159	\$	23,117	\$	133,276	\$	353,429	\$	73,327	\$ 426,756	\$	4,879	\$ 449	\$ 5,328	\$	321,662	\$	75,766	\$ 397,428	\$	282,841	\$	-	\$ 282,841
2023	\$ 457,448	\$	134,079	\$	591,527	\$ 108,491	\$	32,156	\$	140,647	\$	348,957	\$	101,923	\$ 450,880	\$	5,013	\$ 576	\$ 5,589	\$	319,984	\$	105,264	\$ 425,248	\$	289,845	\$	-	\$ 289,845
2024	\$ 458,179	\$	166,964	\$	625,143	\$ 108,525	\$	40,060	\$	148,585	\$	349,654	\$	126,904	\$ 476,558	\$	5,031	\$ 712	\$ 5,743	\$	323,956	\$	131,059	\$ 455,015	\$	297,042	\$	-	\$ 297,042
2025	\$ 461,973	\$	198,068	\$	660,041	\$ 109,301	\$	47,544	\$	156,845	\$	352,672	\$	150,524	\$ 503,196	\$	5,046	\$ 855	\$ 5,901	\$	331,403	\$	155,463	\$ 486,866	\$	307,684	\$	-	\$ 307,684
2026	\$ 468,707	\$	227,858	\$	696,565	\$ 110,792	\$	54,718	\$	165,510	\$	357,915	\$	173,140	\$ 531,055	\$	5,058	\$ 1,129	\$ 6,187	\$	341,980	\$	178,967	\$ 520,947	\$	315,353	\$	-	\$ 315,353
2027	\$ 466,728	\$	257,133	\$	723,861	\$ 110,506	\$	61,774	\$	172,280	\$	356,222	\$	195,359	\$ 551,581	\$	5,197	\$ 1,160	\$ 6,357	\$	355,594	\$	201,819	\$ 557,413	\$	323,234	\$	-	\$ 323,234
2028	\$ 459,145	\$	298,549	\$	757,694	\$ 109,005	\$	71,764	\$	180,769	\$	350,140	\$	226,785	\$ 576,925	\$	5,206	\$ 1,326	\$ 6,532	\$	362,168	\$	234,264	\$ 596,432	\$	331,331	\$	-	\$ 331,331
2029	\$ 460,321	\$	337,561	\$	797,882	\$ 109,467	\$	81,179	\$	190,646	\$	350,854	\$	256,382	\$ 607,236	\$	5,349	\$ 1,497	\$ 6,846	\$	373,347	\$	264,835	\$ 638,182	\$	340,871	\$	-	\$ 340,871
2030	\$ 463,813	\$	375,151	\$	838,964	\$ 110,453	\$	90,252	\$	200,705	\$	353,360	\$	284,899	\$ 638,259	\$	5,496	\$ 1,538	\$ 7,034	\$	388,688	\$	294,167	\$ 682,855	\$	349,448	\$	-	\$ 349,448
2031	\$ 458,561	\$	412,574	\$	871,135	\$ 109,401	\$	99,289	\$	208,690	\$	349,160	\$	313,285	\$ 662,445	\$	5,502	\$ 1,725	\$ 7,227	\$	407,145	\$	323,510	\$ 730,655	\$	358,260	\$	-	\$ 358,260
2032	\$ 444,153	\$	464,341	\$	908,494	\$ 106,293	\$	111,805	\$	218,098	\$	337,860	\$	352,536	\$ 690,396	\$	5,505	\$ 2,066	\$ 7,571	\$	417,634	\$	364,167	\$ 781,801	\$	367,316	\$	-	\$ 367,316
2033	\$ 431,251	\$	515,642	\$	946,893	\$ 103,780	\$	124,213	\$	227,993	\$	327,471	\$	391,429	\$ 718,900	\$	5,656	\$ 2,123	\$ 7,779	\$	432,355	\$	404,172	\$ 836,527	\$	376,620	\$	-	\$ 376,620
2034	\$ 418,576	\$	571,285	\$	989,861	\$ 101,285	\$	137,677	\$	238,962	\$	317,291	\$	433,608	\$ 750,899	\$	5,812	\$ 2,335	\$ 8,147	\$	447,376	\$	447,708	\$ 895,084	\$	398,488	\$	-	\$ 398,488
2035	\$ 399,005	\$	625,306	\$ 1,	,024,311	\$ 97,256	\$	150,752	\$	248,008	\$	301,749	\$	474,554	\$ 776,303	\$	5,972	\$ 2,399	\$ 8,371	\$	467,911	\$	489,829	\$ 957,740	\$	408,600	\$	-	\$ 408,600
2036	\$ 370,229	\$	692,584	\$ 1,	,062,813	\$ 91,068	\$	167,050	\$	258,118	\$	279,161	\$	525,534	\$ 804,695	\$	5,970	\$ 2,793	\$ 8,763	\$	482,196	\$	542,586	\$ 1,024,782	\$	418,990	\$	-	\$ 418,990
2037	\$ 343,056	\$	760,533	\$ 1,	,103,589	\$ 85,343	\$	183,513	\$	268,856	\$	257,713	\$	577,020	\$ 834,733	\$	6,134	\$ 3,037	\$ 9,171	\$	500,804	\$	595,713	\$ 1,096,517	\$	429,666	\$	-	\$ 429,666
2038	\$ 307,239	\$	830,790	\$ 1,	,138,029	\$ 77,561	\$	200,541	\$	278,102	\$	229,678	\$	630,249	\$ 859,927	\$	6,128	\$ 3,295	\$ 9,423	\$	522,629	\$	650,644	\$ 1,173,273	\$	440,635	\$	-	\$ 440,635
2039	\$ 253,774	\$	917,967	\$ 1,	,171,741	\$ 65,031	\$	221,686	\$	286,717	\$	188,743	\$	696,281	\$ 885,024	\$	6,297	\$ 3,561	\$ 9,858	\$	536,669	\$	718,733	\$ 1,255,402	\$	457,165	\$	-	\$ 457,165
2040	\$ 212,957	\$ 1	,010,762	\$ 1,	,223,719	\$ 55,055	\$	244,202	\$	299,257	\$	157,902	\$	766,560	\$ 924,462	\$	6,470	\$ 3,840	\$ 10,310	\$	552,082	\$	791,198	\$ 1,343,280	\$	468,875	\$	-	\$ 468,875
2041	\$ 174,144	\$ 1	,091,829	\$ 1,	,265,973	\$ 45,778	\$	263,892	\$	309,670	\$	128,366	\$	827,937	\$ 956,303	\$	6,458	\$ 4,321	\$ 10,779	\$	582,588	\$	854,722	\$ 1,437,310	\$	480,906	\$	-	\$ 480,906
2042	\$ 132,899	\$ 1	,177,177	\$ 1,	,310,076	\$ 35,929	\$	284,695	\$	320,624	\$	96,970	\$	892,482	\$ 989,452	\$	6,831	\$ 4,244	\$ 11,075	\$	616,981	\$	920,941	\$ 1,537,922	\$	493,268	\$	-	\$ 493,268
2043	\$ 107,695	\$ 1	,248,340	\$ 1,	,356,035	\$ 29,446	\$	302,109	\$	331,555	\$	78,249	\$	946,231	\$ 1,024,480	\$	6,818	\$ 4,758	\$ 11,576	\$	668,915	\$	976,662	\$ 1,645,577	\$	518,139	\$	-	\$ 518,139
2044	\$ 83,011	\$ 1	,322,395	\$ 1,	,405,406	\$ 22,896	\$	320,256	\$	343,152	\$	60,115	\$	1,002,139	\$ 1,062,254	\$	7,005	\$ 5,091	\$ 12,096	\$	726,347	\$ 1	,034,420	\$ 1,760,767	\$	531,494	\$	-	\$ 531,494
2045	\$ 65,364	\$ 1	,390,171	\$ 1,	,455,535	\$ 18,436	\$	336,883	\$	355,319	\$	46,928	\$	1,053,288	\$ 1,100,216	\$	6,986	\$ 5,650	\$ 12,636	\$	796,505	\$ 1	,087,516	\$ 1,884,021	\$	545,216	\$	-	\$ 545,216
2046	\$ 48,622	\$ 1	,457,587	\$ 1,	,506,209	\$ 13,821	\$	353,425	\$	367,246	\$	34,801	\$	1,104,162	\$ 1,138,963	\$	7,178	\$ 5,805	\$ 12,983	\$	875,977	\$ 1	,139,925	\$ 2,015,902	\$	559,315	\$	-	\$ 559,315
2047	\$ 32,425	\$ 1	,534,721	\$ 1,	,567,146	\$ 9,181	\$	372,329	\$	381,510	\$	23,244	\$	1,162,392	\$ 1,185,636	\$	7,375	\$ 6,184	\$ 13,559	\$	956,901	\$ 1	,200,114	\$ 2,157,015	\$	613,537	\$	-	\$ 613,537
2048	\$ 21,931	\$ 1	,608,893	\$ 1,	,630,824	\$ 6,274	\$	390,506	\$	396,780	\$	15,657	\$	1,218,387	\$ 1,234,044	\$	7,119	\$ 6,813	\$ 13,932	\$	1,049,749	\$ 1	,258,257	\$ 2,308,006	\$	629,437	\$	-	\$ 629,437
2049	\$ 14,509	\$ 1	,682,860	\$ 1,	,697,369	\$ 4,159	\$	408,640	\$	412,799	\$	10,350	\$	1,274,220	\$ 1,284,570	\$	7,315	\$ 7,231	\$ 14,546	\$	1,153,543	\$ 1	,316,023	\$ 2,469,566	\$	645,774	\$	-	\$ 645,774
2050	\$ 10,189	\$ 1	,756,101	\$ 1,	,766,290	\$ 2,925	\$	426,607	\$	429,532	\$	7,264	\$	1,329,494	\$ 1,336,758	\$	7,516	\$ 7,430	\$ 14,946	\$	1,269,440	\$ 1	,372,996	\$ 2,642,436	\$	662,561	\$	-	\$ 662,561
2051	\$ 6,123	\$ 1	,829,255	\$ 1,	,835,378	\$ 1,797	\$	444,548	\$	446,345	\$	4,326	\$	1,384,707	\$ 1,389,033	\$	7,474	\$ 8,127	\$ 15,601	\$	1,397,003	\$ 1	,430,404	\$ 2,827,407	\$	980,632	\$	-	\$ 980,632
2052	\$ 4,257	\$ 1	,906,120	\$ 1,	,910,377	\$ 1,250	\$	463,380	\$	464,630	\$	3,007	\$	1,442,740	\$ 1,445,747	\$	7,680	\$ 8,350	\$ 16,030	\$	1,535,091	\$ 1	,490,234	\$ 3,025,325	\$	1,006,400	\$	-	\$ 1,006,400
2053	\$ 2,005	\$ 1	,985,297	\$ 1,	,987,302	\$ 599	\$	482,776	\$	483,375	\$	1,406	\$	1,502,521	\$ 1,503,927	\$	7,628	\$ 8,843	\$ 16,471	\$	1,684,968	\$ 1	,552,130	\$ 3,237,098	\$	1,032,876	\$	-	\$ 1,032,876
2054	\$ 1,346	\$ 2	2,066,165	\$ 2,	,067,511	\$ 402	\$	502,594	\$	502,996	\$	944	\$	1,563,571	\$ 1,564,515	\$	7,838	\$ 9,086	\$ 16,924	\$	797,131	\$ 1	,615,080	\$ 2,412,211	\$	-	\$	-	\$ -
2055	\$ 903	\$ 2	2,147,861	\$ 2,	,148,764	\$ 270	\$	522,611	\$	522,881	\$	633	\$	1,625,250	\$ 1,625,883	\$	7,776	\$ 9,613	\$ 17,389	\$	8,426	\$ 1	,678,959	\$ 1,687,385	\$	-	\$	-	\$ -
2056	\$ -	\$ 2	2,233,022	\$ 2,	,233,022	\$ -	\$	543,460	\$	543,460	\$	-	\$	1,689,562	\$ 1,689,562	\$	7,704	\$ 10,442	\$ 18,146	\$	7,704	\$ 1	,745,845	\$ 1,753,549	\$	-	\$	-	\$ -
2057	\$ -	\$ 2	2,321,363	\$ 2,	,321,363	\$ -	\$	565,084	\$	565,084	\$	-	\$	1,756,279	\$ 1,756,279	\$	7,623	\$ 11,022	\$ 18,645	\$	7,623	\$ 1	,814,952	\$ 1,822,575	\$	-	\$	-	\$ -
2058	\$ -	\$ 2	,411,396	\$ 2,	,411,396	\$ -	\$	587,124	\$	587,124	\$	-	\$	1,824,272	\$ 1,824,272	\$	7,833	\$ 11,325	\$ 19,158	\$	7,833	\$ 1	,885,093	\$ 1,892,926	\$	-	\$	-	\$ -
2059	\$ -	\$ 2	2,503,250	\$ 2,	,503,250	\$ -	\$	609,603	\$	609,603	\$	-	\$	1,893,647	\$ 1,893,647	\$	7,739	\$ 11,946	\$ 19,685	\$	7,739	\$ 1	,956,971	\$ 1,964,710	\$	-	\$	-	\$ -

# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2019 Measurement Date

Projection of Pension Plan's Fiduciary Net Position (Dollar amounts in thousands)



		Actu	arial Accrued Liability	(BOY)					CI	lose	sed Group Asset Projection								
Fiscal Year	Cu	urrent Members	Future Members		Total	Fic	duciary Net Position (boy)	Funded Ratio (boy)	Projected EEC Contributions (moy)	Pi	rojected ER Contrib + Premium Tax (moy)		Projected BP (moy)	ı	Projected Admin Expenses (moy)	Pro	jected Investment Earnings		
2019	\$	16,247,611	\$ -	\$	16,247,611	\$	7,350,349	45.24%	\$ 119,725	\$	564,128	\$	731,310	\$	4,581	\$	402,857		
2020	\$	16,906,942	\$ -	\$	16,906,942	\$	7,701,168	45.55%	\$ 117,993	\$	598,645	\$	751,913	\$	4,836	\$	422,476		
2021	\$	17,574,135	\$ 24,38	\$	17,598,515	\$	8,083,533	46.00%	\$ 115,031	\$	597,943	\$	793,787	\$	4,859	\$	442,270		
2022	\$	18,222,030	\$ 91,46	\$	18,313,490	\$	8,440,131	46.32%	\$ 113,148	\$			833,417	\$	4,879	\$	460,934		
2023	\$	18,857,298			19,053,928	\$	8,780,420	46.56%	\$ 111,435				869,741		5,013		478,759		
2024	\$	19,483,718	\$ 345,98	4 \$	19,829,702	\$	9,105,689	46.73%	\$ 111,469	\$	620,998	\$	895,285	\$	5,031	\$	496,259		
2025	\$	20,119,126			20,655,621	\$	9,434,099	46.89%	\$ 112,267				915,401		5,046		514,288		
2026	\$	20,772,822			21,540,981	\$	9,779,294	47.08%	\$ 113,798				930,973		5,058		533,387		
2027	\$	21,453,581			22,495,094	\$	10,147,781	47.30%	\$ 113,504				955,329		5,197		553,565		
2028	\$	22,144,677			23,502,785	\$	10,533,152	47.57%	\$ 111,963				990,559		5,206		574,160		
2029	\$	22,829,597			24,562,720	\$	10,917,009	47.82%	\$ 112,437				1,012,609		5,349		595,245		
2030	\$	23,530,780			25,698,007	\$	11,320,950	48.11%	\$ 113,450				1,033,109		5,496	•	617,578		
2031	\$	24,253,156	\$ 2,662,08	5 \$	26,915,241	\$	11,751,510	48.45%	\$ 112,369	\$	765,405	\$	1,071,681	\$	5,502		640,923		
2032	\$	24,970,104			28,190,514	\$	12,193,023	48.83%	\$ 109,177				1,118,858	\$	5,505		664,370		
2033	\$	25,662,826			29,522,937	\$	12,627,158	49.20%	\$ 106,596				1,157,748		5,656		687,769		
2034	\$	26,340,091	\$ 4,584,542	2 \$	30,924,633	\$	13,067,093	49.61%	\$ 104,033	\$	845,864	\$	1,197,708	\$	5,812	\$	711,809		
2035	\$	27,000,190			32,402,379	\$	13,525,280	50.09%	\$ 99,895				1,244,863	\$	5,972		736,445		
2036	\$	27,627,512	\$ 6,315,75	4 \$	33,943,266	\$	13,987,296	50.63%	\$ 93,539	\$	901,186	\$	1,310,418	\$	5,970	\$	760,574		
2037	\$	28,191,645	\$ 7,343,78	\$	35,535,425	\$	14,426,207	51.17%	\$ 87,659	\$	930,470	\$	1,366,639	\$	6,134	\$	783,819		
2038	\$	28,700,391	\$ 8,492,38	7 \$	37,192,778	\$	14,855,383	51.76%	\$ 79,665	\$	963,264	\$	1,442,522	\$	6,128	\$	806,038		
2039	\$	29,121,389	\$ 9,769,68	5 \$	38,891,075	\$	15,255,700	52.39%	\$ 66,795	\$	993,834	\$	1,555,626		6,297	\$	825,462		
2040	\$	29,392,964	\$ 11,199,58	5 \$	40,592,549	\$	15,579,867	53.01%	\$ 56,549		, ,		1,638,188		6,470		841,505		
2041	\$	29,551,611	\$ 12,797,76	5 \$	42,349,376	\$	15,854,220	53.65%	\$ 47,020	\$	1,063,494	\$	1,723,038	\$	6,458	\$	855,188		
2042	\$	29,590,884	\$ 14,557,78	2 \$	44,148,666	\$	16,090,427	54.38%	\$ 36,904	\$	1,110,249	\$	1,799,420	\$	6,831	\$	867,091		
2043	\$	29,510,349	\$ 16,475,79	3 \$	45,986,147	\$	16,298,420	55.23%	\$ 30,245	\$	1,187,054	\$	1,863,895	\$	6,818	\$	878,685		
2044	\$	29,332,570	\$ 18,519,68	5 \$	47,852,256	\$	16,523,691	56.33%	\$ 23,517	\$	1,257,841	\$	1,914,657	\$	7,005	\$	891,430		
2045	\$	29,066,833	\$ 20,676,79	5 \$	49,743,628	\$	16,774,817	57.71%	\$ 18,936	\$	1,341,721	\$	1,948,053	\$	6,986	\$	906,488		
2046	\$	28,733,560	\$ 22,934,64	\$	51,668,200	\$	17,086,923	59.47%	\$ 14,196	\$	1,435,292	\$	1,990,213	\$	7,178	\$	924,915		
2047	\$	28,320,991	\$ 25,291,09	3 \$	53,612,084	\$	17,463,935	61.66%	\$ 9,430	\$	1,570,438	\$	2,020,101	\$	7,375	\$	948,372		
2048	\$	27,837,944	\$ 27,758,33	4 \$	55,596,278	\$	17,964,699	64.53%	\$ 6,444	\$	1,679,186	\$	2,035,020	\$	7,119	\$	978,386		
2049	\$	27,301,934	\$ 30,339,349	9 \$	57,641,283	\$	18,586,576	68.08%	\$ 4,272	\$	1,799,317	\$	2,041,564	\$	7,315	\$	1,015,606		
2050	\$	26,721,892	\$ 33,036,68	5 \$	59,758,577	\$	19,356,892	72.44%	\$ 3,004	\$	1,932,001	\$	2,039,068	\$	7,516	\$	1,061,602		
2051	\$	26,107,954	\$ 35,848,98	3 \$	61,956,942	\$	20,306,915	77.78%	\$ 1,846	\$	2,377,635	\$	2,033,204	\$	7,474	\$	1,126,073		
2052	\$	25,461,982	\$ 38,774,61	4 \$	64,236,596	\$	21,771,791	85.51%	\$ 1,284	\$	2,541,491	\$	2,020,301	\$	7,680	\$	1,211,416		
2053	\$	24,791,766	\$ 41,822,17	2 \$	66,613,938	\$	23,498,001	94.78%	\$ 615	\$	2,717,844	\$	2,005,602	\$	7,628	\$	1,311,524		
2054	\$	24,097,411	\$ 44,998,39	1 \$	69,095,802	\$	25,514,754	105.88%	\$ 413	\$	797,131	\$	1,984,693	\$	7,838	\$	1,370,889		
2055	\$	23,385,647	\$ 48,306,02	7 \$	71,691,674	\$	25,690,656	109.86%	\$ 277	\$	8,426	\$	1,960,449	\$	7,776	\$	1,359,820		
2056	\$	22,659,170	\$ 51,743,20	3 \$	74,402,378	\$	25,090,954	110.73%	\$ -	\$	7,704	\$	1,934,484	\$	7,704	\$	1,327,516		
2057	\$	21,918,454	\$ 55,314,78	<b>3</b> \$	77,233,240	\$	24,483,986	111.70%	\$ -	\$	7,623	\$	1,903,566	\$	7,623	\$	1,294,972		
2058	\$	21,168,756	\$ 59,024,89	7 \$	80,193,653	\$	23,875,392	112.79%	\$ -	\$	7,833	\$	1,869,982	\$	7,833	\$	1,262,410		
2059	\$	20,412,319	\$ 62,873,80	4 \$	83,286,123	\$	23,267,820	113.99%	\$ -	\$	7,739	\$	1,833,699	\$	7,739	\$	1,229,978		

# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements for the June 30, 2019 Measurement Date



Projection of Pension Plan's Fiduciary Net Position (Dollar amounts in thousands)

scal Year	"Funde	ed" Portion of BP	"Unfunded" of B		PV of	f "Funded" BP	PV c	of "Unfunded" BP		of BP Using a Single DR
2019	\$	731,310	\$	-	\$	711,992	\$	-	\$	711,99
2020	\$	751,913	\$	-	\$	693,887	\$	-	\$	693,88
2021	\$	793,787	\$	-	\$	694,341	\$	-	\$	694,34
2022	\$	833,417	\$	-	\$	691,001	\$	-	\$	691,00
2023	\$	869,741	\$	-	\$	683,524	\$	-	\$	683,52
2024	\$	895,285	\$	-	\$	666,919	\$	-	\$	666,91
2025	\$	915,401	\$	-	\$	646,354	\$	-	\$	646,35
2026	\$	930,973	\$	-	\$	623,080	\$	-	\$	623,08
2027	\$	955,329	\$	-	\$	606,048	\$	-	\$	606,04
2028	\$	990,559	\$	-	\$	595,637	\$	_	\$	595,63
2029	\$	1,012,609	\$	_	\$	577,153	\$	_	\$	577,15
2030	\$	1,033,109	\$	_	\$	558,140	\$	-	\$	558,14
2031	\$	1,071,681	\$	_	\$	548,795	\$	_	\$	548,79
2032	\$	1,118,858	\$	_	\$	543,084	\$	_	\$	543,08
2032	\$	1,157,748	\$	_	\$	532,664	\$	_	\$	
										532,66
2034	\$	1,197,708	\$	-	\$	522,321	\$	-	\$	522,32
2035	\$	1,244,863	\$	-	\$	514,584	\$	-	\$	514,58
2036	\$	1,310,418	\$	-	\$	513,442	\$	-	\$	513,44
2037	\$	1,366,639	\$	-	\$	507,555	\$	-	\$	507,55
2038	\$	1,442,522	\$	-	\$	507,808	\$	-	\$	507,80
2039	\$	1,555,626	\$	-	\$	519,075	\$	-	\$	519,07
2040	\$	1,638,188	\$	-	\$	518,127	\$	-	\$	518,12
2041	\$	1,723,038	\$	-	\$	516,553	\$	-	\$	516,55
2042	\$	1,799,420	\$	-	\$	511,328	\$	-	\$	511,32
2043	\$	1,863,895	\$	-	\$	502,038	\$	-	\$	502,03
2044	\$	1,914,657	\$	-	\$	488,825	\$	-	\$	488,82
2045	\$	1,948,053	\$	-	\$	471,423	\$	-	\$	471,42
2046	\$	1,990,213	\$	-	\$	456,517	\$	-	\$	456,51
2047	\$	2,020,101	\$	-	\$	439,216	\$	-	\$	439,21
2048	\$	2,035,020	\$	-	\$	419,393	\$	-	\$	419,39
2049	\$	2,041,564	\$	-	\$	398,807	\$	-	\$	398,80
2050	\$	2,039,068	\$	-	\$	377,554	\$	-	\$	377,55
2051	\$	2,033,204	\$	-	\$	356,842	\$	-	\$	356,84
2052	\$	2,020,301	\$	-	\$	336,092	\$	-	\$	336,09
2053	\$	2,005,602		-	\$	316,253		-	\$	316,25
2054	\$	1,984,693	\$	-	\$	296,641	\$	-	\$	296,64
2055	\$	1,960,449	\$	_	\$	277,741	\$	_	\$	277,74
2056	\$	1,934,484	\$	_	\$	259,775	\$	-	\$	259,77
2057	\$	1,903,566	\$	_	\$	242,297	\$	_	\$	242,29
2058	\$	1,869,982	\$	_	\$	225,614	\$	_	\$	225,61
2059	\$	1,833,699	\$	=	\$	209,702		_	\$	209,70
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