Aon
Retirement and Investment

Actuarial Valuation Report

City of Panama City Beach Police Officers' Pension Plan

Funding Results for the Year Ending September 30, 2019

Accounting Results for the Year Ending September 30, 2018

Empower Results®

Ms. Holly J. White
Finance Director
City of Panama City Beach
110 South Arnold Road
Panama City Beach, FL 32407

Re: *Panama City Beach Police Officers' Pension Plan*

Dear Ms. White:

In accordance with your request, we have performed an actuarial valuation for the captioned pension plan as of October 1, 2018. The purposes of this report are to provide the contribution requirements for the Plan Year beginning October 1, 2018, and ending September 30, 2019, measurements of the funded status of the plan, and disclosures for financial accounting.

This report is intended for the sole use of the City of Panama City Beach and the Pension Board, and is intended only to supply information for the City and Board to comply with the stated purposes of the report and may not be appropriate for other purposes. Reliance on information contained in this report by anyone for other than the intended purposes, puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the report's conclusions. Accordingly, no person or entity, including the City of Panama City Beach and the Pension Board, should base any representations or warranties in any agreement on any statements or conclusions contained in this report, without the written consent of Aon.

This report includes a Summary of Major Plan Provisions and a description of the Actuarial Basis used in the valuation. We relied on employee and financial data provided by the City. The Actuarial Cost Method used is considered acceptable under the Rules of the Department of Administration, Division of Retirement, Chapter 60T-1, Local Retirement Systems' Actuarial Reports.

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation and/or cost determination was prepared and completed by the undersigned or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise provided for in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Respectfully submitted,

08/16/19

Stephen Lambert-Oswald, F.S.A., E.A., M.A.A.A. Date
Enrollment No. 17-07225

Discussion of Results

October 1, 2018

The results of the actuarial valuation of the Panama City Beach Police Officers' Pension Plan as of October 1, 2018, are contained in this report. The actuarial valuation is based upon census data and trust fund financial statements provided to us by the City. There have been no significant plan changes or changes in actuarial assumptions or methodology since the Actuarial Valuation as of October 1, 2017.

The major results of the actuarial valuation are discussed below.

Minimum Required Contribution

The State minimum required contribution to be deposited by the City is developed on pages 3 and 4. The minimum required contribution includes recognition of excess contributions made in prior years.

	Plan Year Ended	
	09/30/18	**09/30/19**
State Minimum Required Contribution	$ 484,726	$ 433,065
Percent of Participants' Compensation	15.39%	12.68%

Under a new state interpretation, the actual required contribution is not the dollar amount shown, which is based on estimated Participants’ Compensation Below Normal Retirement Age. Rather it is to be based on the percentage shown here and actual Participants’ Compensation Below Normal Retirement Age for the Plan Year.

Actuarial Experience

The approximate time-weighted rate of return on the Actuarial Value of Assets was 7.63% for the plan year ended September 30, 2018. Investment experience compounded over the last 5 years has been approximately 9.50% per year. This compares favorably to the 8.0% investment rate of return assumption used to determine the plan's funding requirements. Salary increase experience was observed to be 9.2%, higher than the assumed salary increase of 6.0%. Salary experience compounded over the last 5 years has been approximately 5.8% per year.

Funded Status

One of the best measures of the Funded Status of a defined benefit plan is considered to be the level of funding of the Accumulated Plan Benefits and Vested Benefits. Accumulated Plan Benefits are those future benefit payments that are attributable to employees' service rendered prior to the valuation date based on employees' actual pay histories (or estimates thereof). This measurement of benefits does not take into account the effect of potential future salary increases. Vested Benefits are those benefits which become nonforfeitable after 10 years of Credited Service or which are attributable to employee contributions.

City of Panama City Beach
Police Officers' Pension Plan

Based on this measurement of Funded Status, using the Actuarial Value of Assets, the plan is adequately funded as of October 1, 2017, although a higher level of excess funding would be desirable:

	10/01/17	10/01/18
NET ASSETS AVAILABLE FOR BENEFITS*	$ 19,830,687	$ 21,294,617
ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS		
TOTAL VESTED BENEFITS	$ 17,915,344	$ 19,159,886
Percent Funded	111%	111%
TOTAL ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS	$ 18,479,765	$ 20,114,589
Percent Funded	107%	106%

Another, more traditional measure of the Funded Status uses the Entry Age Normal Accrued Liability. This accrued liability equals the Present Value of Benefits less the Present Value of Future Entry Age Normal Costs. (See the description of the entry age normal method on the "Actuarial Cost Method" pages herein.) This accrued liability is independent of the actual plan assets and therefore may be a more reasonable "mile post" of how funded the Plan should be. It recognizes future compensation increases and is a measure of where the level of assets should be to date if all participants are proportionately funded over their individual careers as a level percentage of each participant's compensation:

	10/01/17	10/01/18
MARKET VALUE OF ASSETS	$ 20,144,023	$ 21,752,563
ENTRY AGE NORMAL ACCRUED LIABILITY	$ 21,918,136	$ 22,673,533
Funded Ratio	91.91%	95.94%

* Actuarial Value of Assets

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Information Required by State

Member Data

Basis for Valuation

Disclosure Notes

City of Panama City Beach
Police Officers' Pension Plan

Development of Normal Cost for State Minimum Required Contribution

October 1, 2018

		10/1/2017	10/1/2018
1.	Number of Participants		
	Active	56	60
	Terminated with Vested Benefits	3	4
	Retirees and Beneficiaries	26	26
	Total	85	90
2.	Participant's Compensation		
	a. Below Normal Retirement Age	$ 3,150,498	$ 3,414,982
	b. Beyond Normal Retirement Age	85,292	95,798
	c. Total	$ 3,235,790	$ 3,510,780
3.	Present Value of Benefits		
	Active	$ 14,865,732	$ 15,808,614
	Terminated with Vested Benefits	597,306	761,791
	Retirees	10,391,765	10,178,859
	Excess State Monies Reserve	101,933	-
	Total	$ 25,956,736	$ 26,749,264
4.	Unfunded Actuarial Accrued Liability	$ 264,707	$ 444,545
5.	Actuarial Value of Assets	$ 19,828,487	$ 21,294,617
6.	Past Excess Contributions	$ 46,575	$ 116,938
7.	Present Value of Future Employee Contributions	$ 2,377,751	$ 2,068,728
8.	Present Value of Future City Normal Costs = (3) – (4) – [(5) – (6)] – (7)	$ 3,532,366	$ 3,058,312
9.	Present Value of Future Compensation	$ 23,687,208	$ 21,830,018
10.	Normal Cost Rate = (8) ÷ (9)	14.91%	14.01%
11.	Normal Cost = (2a) x (10)	$ 469,739	$ 478,439

City of Panama City Beach
Police Officers' Pension Plan

State Minimum Required Contribution

October 1, 2018

	Plan Year Ended	
	9/30/2018	**9/30/2019**
1. Normal Cost	$ 469,739	$ 478,439
2. Amortization of Actuarial Accrued Liability	$ 55,360	$ 96,983
3. Interest Adjustment on (1) and (2) for Quarterly Payment	$ 20,600	$ 21,882
4. Expenses		
Current Year Estimate Equal to Prior Year's Actual	$ 72,937	$ 82,818
Make-up for Shortfall in Prior Year's Estimate	8,132	9,881
Total	$ 81,069	$ 92,699
5. Estimated State Premium Tax Refund (Equal to Prior Year's Actual Refund and Excluding Excess Premium Tax Revenues That Have Not Been Used to Provide Additional Benefits)	$ 93,639	$ 135,554
6. Past Excess Contributions plus Interest Adjusted for Quarterly Payment	$ 48,403	$ 121,385
7. Minimum Required Contribution by City for Fiscal Year = (1) + (2) + (3) + (4) – (5) – (6)	$ 484,726	$ 433,065
8. Percent of Participants' Compensation Below Normal Retirement Age*	15.39%	12.68%

* Under a new state interpretation, the actual required contribution is based on this percentage of actual, not estimated, Participants' Compensation Below Normal Retirement Age.

City of Panama City Beach
Police Officers' Pension Plan

Unfunded Frozen Initial and Supplemental Liabilities

October 1, 2018

	Initial Amount to be Amortized	Beginning Amortization Period	Original Amortization Period (Years)	Years Remaining	(BOY) Annual Amortization Amount	Unamortized Balance as of 10/1/2018
Benefit Improvement	407,851	10/1/1994	30	6	33,368	167,480
Plan/Assumption Change	265,236	10/1/1994	30	6	21,700	108,916
Plan/Assumption Change	285,087	10/1/2018	9	9	41,915	285,087
					$ 96,983	

1.	Unamortized Balance as of 10/1/2018	$ 561,483
2.	Past Excess Contributions	116,938
3.	Remaining Unfunded Liabilities = (1) - (2)	$ 444,545

Schedule Illustrating the Amortization of Unfunded Liabilities Existing This Date

October 1, 2018

October 1	Liability
2018	$ 444,545
2019	374,183
2020	298,368
2021	216,678
2022	128,657
2023	33,893
2024	-

The first figure is the Unfunded Frozen Initial and Supplemental Liabilities as of the current valuation date. For each year thereafter, the proceding year's Unfunded Liability is reduced by the annual amortization amount shown on the page titled Unfunded Frozen and Supplemental Liabilities and increased with interest at 7.75% per annum.

Thus the remaining amortization period as of the October 1, 2018, valuation is 2024 less 2018, or 6 years.

City of Panama City Beach
Police Officers' Pension Plan

Past Excess Contributions (State Requirements)

October 1, 2018

	Plan Year Ended	
	9/30/2017	9/30/2018
Charges:		
Deficiency Brought Forward	$ -	$ -
Normal Cost	N/A	N/A
Expenses (Estimated and Make up)	N/A	N/A
Amortization of Frozen Initial and Supplemental Liabilities	N/A	N/A
Required City Contribution, per State*	584,206	574,622
State (Estimated)	93,639	93,639
Interest	26,592	26,216
Total Charges	$ 704,437	$ 694,477
Credits:		
Excess Contribution Brought Forward	$ 47,081	$ 46,575
City Contributions	580,095	577,269
State Contributions (Excluding Excess Premium Tax Revenues That Have Not Been Used to Provide Additional Benefits)	93,639	155,114
Interest	30,197	32,457
Total Credits	$ 751,012	$ 811,415
Balance:		
Excess Contribution Carried Forward	$ 46,575	$ 116,938
Deficiency Carried Forward	$ -	$ -

*Under a new state interpretation, the actual required contribution is based on the required contribution rate times actual Participants' Compensation Below Normal Retirement Age for the Plan Year. See the "State Required Exhibit" for this determination.

City of Panama City Beach
Police Officers' Pension Plan

Market Value of Assets

October 1, 2018

	10/1/2017	10/1/2018
Assets:		
Cash	$ 1,213,415.39	$ 837,453.15
Certificates of Deposit	-	
Government and Corporate Bond	4,682,723.32	4,997,873.06
Real Estate and Equity Funds	14,248,165.18	15,914,329.38
Due from City Funds	-	-
Due from State of Florida	-	-
Accrued Interest	-	-
Miscellaneous Receivable	7,603.05	9,619.22
Total Assets	$ 20,151,906.94	$ 21,759,274.81
Liabilities and Fund Balance:		
Liabilities:		
Accounts Payable	$ (7,277.56)	$ (6,712.24)
Refunds or Benefits Payable	(606.09)	-
Due Other Funds	-	-
Total Liabilities	$ (7,883.65)	$ (6,712.24)
Pension Fund Balance:	$ 20,144,023.29	$ 21,752,562.57

City of Panama City Beach
Police Officers' Pension Plan

Reconciliation of Assets (Market Value)

October 1, 2018

	Plan Year Ended	
	9/30/2017	9/30/2018
Revenues:		
City Contributions	580,095.03	577,269.28
Employee Contributions	344,327.28	373,527.22
State Contributions	142,662.63	155,114.25
Repayment of Contributions	-	-
Interest & Dividends	477,150.42	382,058.16
Unrealized/Realized Gains (Losses)	1,797,080.76	1,259,908.11
Commissions	-	-
Total Revenues	$ 3,341,316.12	$ 2,747,877.02
Expenses:		
Pension Payments	852,221.94	871,679.88
Contribution Refunds	115,216.05	151,546.83
DROP Payments	-	33,292.71
Investment Expenses	48,016.46	45,857.33
Other Expenses	24,920.49	36,960.99
Total Expenses	$ 1,040,374.94	$ 1,139,337.74
Net Income:	$ 2,300,941.18	$ 1,608,539.28
Fund Balance, Beginning of Year:	17,843,082.10	$ 20,144,023.28
Fund Balance, End of Year:	$ 20,144,023.28	$ 21,752,562.56

City of Panama City Beach
Police Officers' Pension Plan

Investment Gain/(Loss)

October 1, 2018

1. Date of Actuarial Value of Assets:	10/1/2018	10/1/2017	10/1/2016	10/1/2015
2. Market Value as of Prior Year (including receivable contributions)	$ 20,144,023	$ 17,843,082	$ 16,344,206	$ 16,539,181
3. Receivable Contribution included above	$ -	$ -	$ -	$ -
4. Market Value Excluding Receivable (2) - (3)	$ 20,144,023	$ 17,843,082	$ 16,344,206	$ 16,539,181
5. Employer, Employee & State Contributions (made for the year, i.e., excluding the receivable contribution, item (3), but including contributions made after the end of the year with no expected return thereon)	$ 1,105,911	$ 1,067,085	$ 1,066,264	$ 1,032,915
6. Benefit Distributions	$ 1,056,519	$ 967,438	$ 904,816	$ 926,647
7. Administrative Expenses	$ 82,818	$ 72,937	$ 64,805	$ 67,958
8. Expected Return %	8.00%	8.00%	8.00%	8.00%
a. Item (4) for 1 year	$ 1,561,162	$ 1,427,447	$ 1,307,537	$ 1,323,134
b. Item (3) for partial & (5) for 1/2 year	36,843	36,977	41,830	40,522
c. Item (6) for 1/2 year	(40,940)	(38,698)	(35,496)	(36,353)
d. Item (7) for 1/2 year	0	0	(2,542)	(2,666)
	$ 1,557,065	$ 1,425,726	$ 1,311,329	$ 1,324,637
9. Expected Market Value (2)+(5)-(6)-(7)+(8)	$ 21,667,662	$ 19,295,518	$ 17,752,179	$ 17,902,128
10. Actual Market Value this Year (including receivable contributions)	$ 21,752,563	$ 20,144,023	$ 17,843,082	$ 16,344,206
11. Investment Gain/(Loss) from Experience	$ 84,901	$ 848,505	$ 90,904	$ (1,557,922)

City of Panama City Beach
Police Officers' Pension Plan

Actuarial Value of Assets

October 1, 2018

5 -YEAR SMOOTHED MARKET VALUE WITHOUT PHASE-IN				**10/1/2018**
1. Market Value of Assets				$ 21,752,563
2. Investment Gains/(Losses) for Four Prior Years				
a.	Oct-17			$ 84,901
b.	Oct-16			848,505
c.	Oct-15			90,904
d.	Oct-14			(1,557,922)
3. Unrecognized Investment Gains/(Losses)				
a.	Oct-17	80%	of (2)(a)	$ 67,921
b.	Oct-16	60%	of (2)(b)	509,103
c.	Oct-15	40%	of (2)(c)	36,361
d.	Oct-14	20%	of (2)(d)	(311,584)
e. Total: (a)+(b)+(c)+(d)				$ 301,801
4. Preliminary Actuarial Value of Assets = (1) - (3)(e)				$ 21,450,762
5. Adjustment to be within 20% of market value				$ -
6. Actuarial Value of Assets = (4) + (5)				$ 21,450,762

City of Panama City Beach
Police Officers' Pension Plan

Allocation of Actuarial Value of Assets to the Reserve for Other Retirement Benefits (i.e., Excluding DROP)

October 1, 2018

	Actuarial Value Allocated in Proportion to Market Value	Market Value
Reserve for DROP	$ 156,145	$ 158,341
Reserve for Other Retirement Benefits	21,294,617	21,594,222
Total Fund Balances	$ 21,450,762	$ 21,752,563

City of Panama City Beach
Police Officers' Pension Plan

Development of GASB 68 Net Pension Expense

Calculation Details

The following table illustrates the Net Pension Liability under GASB 68, which is effective for September 30, 2016 fiscal year and later.

		Fiscal Year End 9/30/2017	Fiscal Year End 9/30/2018
(1)	Total Pension Liability	$ 21,918,136	$ 22,727,045
(2)	Plan Fiduciary Net Position	$ 20,144,023	$ 21,752,563
(3)	Net Pension Liability	$ 1,774,113	$ 974,483
(4)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	91.91%	95.71%

The following table illustrates the pension expense under GASB 68.

		Fiscal Year Ending 9/30/2017	Fiscal Year Ending 9/30/2018
(1)	Service Cost	$ 609,635	$ 621,201
(2)	Interest Cost	$ 1,650,452	$ 1,760,886
(3)	Expected Investment Return	$ (1,425,726)	$ (1,607,293)
(4)	Employee Contributions	$ (344,327)	$ (373,527)
(5)	Admin Expense	$ 72,937	$ 82,818
(6)	Plan Changes	$ -	$ -
(7)	Amortization of Unrecognized		
(a)	Liability (Gain)/Loss	$ 13,402	$ 60,412
(b)	Asset (Gain)/Loss	$ 147,137	$ 309,903
(c)	Assumption Changes	$ 29,634	$ 29,634
(8)	Total Expense	$ 753,143	$ 884,034

Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows at the end of the fiscal year under GASB 68.

		Deferred Outflows	Deferred Inflows
(1)	Difference between actual and expected experience		
	(a) Measurement Date September 30, 2015	$ -	$ (61,552)
	(b) Measurement Date September 30, 2016	$ 159,914	$ -
	(c) Measurement Date September 30, 2017	$ -	$ (35,253)
	(d) Measurement Date September 30, 2018	$ 291,480	$ -
(2)	Net Difference Between Expected and Actual Earnings on Pension Plan Investments		
	(a) Measurement Date September 30, 2015	$ 335,582	$ -
	(b) Measurement Date September 30, 2016	$ -	$ (37,489)
	(c) Measurement Date September 30, 2017	$ -	$ (509,104)
	(d) Measurement Date September 30, 2018		$ (27,738)
(3)	Total	$ 786,976	$ (671,136)

Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of September 30, 2018.

Date Established	Type of Base	Period Original	Period Remaining	Balance	Balance Remaining	Annual Payment
10/1/2014	Liability (Gain)/Loss	6.04	2.04	($181,955)	($61,552)	($30,101)
10/1/2014	Asset (Gain)/Loss	5.00	1.00	$1,677,908	$335,582	$335,582
10/1/2015	Liability (Gain)/Loss	6.04	3.04	$317,692	$159,914	$52,593
10/1/2015	Asset (Gain)/Loss	5.00	2.00	($93,722)	($37,489)	($18,744)
10/1/2016	Liability (Gain)/Loss	5.88	3.88	($53,433)	($35,253)	($9,090)
10/1/2016	Asset (Gain)/Loss	5.00	3.00	($848,505)	($509,104)	($169,701)
10/1/2016	Assumption change	5.88	3.88	$174,190	$114,921	29,634
10/1/2017	Liability (Gain)/Loss	5.66	4.66	$214,479	$176,559	37,920
10/1/2017	Asset (Gain)/Loss	5.00	4.00	($34,673)	($27,738)	(6,935)
	Total Charges				**$ 115,840**	**$ 221,158**

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

Year Ended September 30:

2019	221,158
2020	(114,423)
2021	(66,929)
2022	51,156
2023	24,880
Thereafter	0

City of Panama City Beach
Police Officers' Pension Plan

Reconciliation of Net Pension Liability

Shown below are details regarding the Total Pension Liability, Plan Fiduciary Net Position, and Net Pension Liability for the Measurement Period from September 30, 2017 to September 30, 2018:

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (c) = (a) - (b)
Balance recognized at 10/1/2017	$21,918,136	$20,144,023	$1,774,113
Changes recognized for the fiscal year:			
Service Cost	$621,201	N/A	$621,201
Interest on the total pension liability	$1,760,886	N/A	$1,760,886
Changes of benefit terms	$0	N/A	$0
Differences between expected and actual experience	($516,658)	N/A	($516,658)
Changes of assumptions	$0	N/A	$0
Contributions from the employer	N/A	$577,269	($577,269)
Contributions from the employee	N/A	$373,527	($373,527)
Contribution form the state	N/A	$155,114	($155,114)
Net investment income	N/A	$1,641,966	($1,641,966)
Benefit payments	($1,056,519)	($1,056,519)	$0
Administrative expense	N/A	($82,818)	$82,818
Other	N/A	N/A	$0
Net Changes	$808,910	$1,608,539	($799,630)
Balance recognized at 9/30/2018	$22,727,045	$21,752,563	$974,483

City of Panama City Beach
Police Officers' Pension Plan

GASB 67 Requirements

GASB 67 is effective for fiscal year ending September 30, 2014. The follow exhibit is a 10 year history of change in Net Pension Liability.

Changes in the Net Pension Liability and Related Ratios – RP2000, 8.0% Interest

State Required Disclosure—Changes in the Net Pension Liability and Related Ratios

	Fiscal Year Ending									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Pension Liability										
Service Cost	N/A	N/A	N/A	N/A	N/A	479598	$520,894	$546,734	$609,635	$621,201
Interest Cost	N/A	N/A	N/A	N/A	N/A	304873	$1,525,052	$1,528,848	$1,650,452	$1,760,886
Changes of Benefit Terms	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$0	$0
Differences Between Expected and Actual Experiences	N/A	N/A	N/A	N/A	N/A	1536514.984	($181,955)	$317,692	($53,433)	($516,658)
Changes of Assumptions	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$174,190	$0
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	-1037204.43	($926,647)	($904,816)	($967,438)	($1,056,519)
DROP Adjustment	N/A	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$0
Net Change in Total Pension Liability	N/A	N/A	N/A	N/A	N/A	1283781.554	$937,344	$1,488,458	$1,413,406	$808,910
Total Pension Liability (Beginning)	N/A	N/A	N/A	N/A	N/A	16795146.63	$18,078,928	$19,016,272	$20,504,730	$21,918,136
Total Pension Liability (Ending)	N/A	N/A	N/A	N/A	16795146.6	$18,078,928	$19,016,272	$20,504,730	$21,918,136	$22,727,045
Plan Fiduciary Net Position										
Contributions—Employer	N/A	N/A	N/A	N/A	N/A	646022.66	$589,810	$590,606	$580,095	577,269
Contributions—Member	N/A	N/A	N/A	N/A	N/A	307896.3	$325,235	$338,561	$344,327	373,527
Contributions - State	N/A	N/A	N/A	N/A	N/A	111257	$117,870	$137,097	$142,663	155,114
Net Investment Income	N/A	N/A	N/A	N/A	N/A	1757728.79	($232,058)	$1,402,233	$2,274,231	1,641,966
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	-1037204.43	($926,647)	($904,816)	($967,438)	(1,056,519)
Administrative Expense	N/A	N/A	N/A	N/A	N/A	-52987.9	($69,185)	($64,805)	($72,937)	(82,818)
Other	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$0	$0
Net Change in Plan Fiduciary Net Position	N/A	N/A	N/A	N/A	N/A	1732712.42	($194,975)	$1,498,876	$2,300,941	$1,608,539
Plan Fiduciary Net Position (Beginning)	N/A	N/A	N/A	N/A	N/A	14806469	$16,539,181	$16,344,206	$17,843,082	$20,144,023
Plan Fiduciary Net Position (Ending)	N/A	N/A	N/A	N/A	14806469	$16,539,181	$16,344,206	$17,843,082	$20,144,023	$21,752,563
County's Net Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	1539746.761	$2,672,065	$2,661,648	$1,599,923	$974,483
Net Position as a % of Pension Liability	N/A	N/A	N/A	N/A	N/A	0.914831967	85.95%	87.02%	91.91%	95.71%
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	2732684.1	$2,967,537	$3,078,788	$3,145,402	$3,395,701
Net Pension Liability as a % of Payroll	N/A	N/A	N/A	N/A	N/A	0.56345582	90.04%	86.45%	50.87%	28.70%

City of Panama City Beach
Police Officers' Pension Plan

GASB 67 Requirements

GASB 67 is effective for fiscal year ending September 30, 2014. The follow exhibit is a 10 year history of change in Net Pension Liability.

	Fiscal Year Ending									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Pension Liability										
Actuarially Determined Contribution	N/A	N/A	N/A	N/A	N/A	$615,147	$523,418	$626,841	$536,211	
Contributions made in Relation to the Actuarially Determined Contribution	N/A	N/A	N/A	N/A	N/A	$646,023	$589,810	$590,606	580,095.00	577,269.28
Contribution Deficiency (excess)	N/A	N/A	N/A	N/A	N/A	($30,876)	($66,392)	$36,235	($43,884)	($577,269)
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	$2,732,684	$2,967,537	$3,078,788	$3,130,244	$3,395,701
Contributions as a % of Payroll	N/A	N/A	N/A	N/A	N/A	23.64%	19.88%	19.18%	18.53%	17.00%

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method:	Entry age Normal with frozen Initial Liability
Asset Valuation Method:	Actuarial Value – 5-year smoothed market value.
IRS Limit Increases:	4.50%
Salary Increases:	5.00%
Investment Rate of Return:	8.00%, net of pension plan investment expense, including inflation.
Retirement Age:	Graded by age and Division – see assumption section for rates.

Mortality rates were based on the Special Risk FRS Moratlity

GASB 67 Requirements

Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2017:

		1% Decrease (7.00%)	Current Rate (8.00%)	1% Increase (9.00%)
(1)	Total Pension Liability	$22,985,387	$21,918,136	$18,197,251
(2)	Plan Fiduciary Net Position	$20,144,023	$20,144,023	$20,144,023
(3)	Net Pension Liability	$2,841,364	$1,774,113	($1,946,773)

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2018:

		1% Decrease (7.00%)	Current Rate (8.00%)	1% Increase (9.00%)
(1)	Total Pension Liability	$24,432,730	$22,727,045	$19,323,156
(2)	Plan Fiduciary Net Position	$21,752,563	$21,752,563	$21,752,563
(3)	Net Pension Liability	$2,680,167	$974,483	($2,429,406)

City of Panama City Beach
Police Officers' Pension Plan

Funded Status – Accrued Benefits (ASC 960)

October 1, 2018

Generally the best measures of the Funded Status of a defined benefit plan are considered to be the levels of funding of the Actuarial Present Values of Accumulated Plan Benefits and Vested Benefits. Accumulated Plan Benefits are those future benefit payments that are attributable under the plan's provisions to employees' service rendered prior to the valuation date. Accumulated Plan Benefits are based on employees' actual pay histories, or estimates thereof; possible future salary increases or changes in Social Security levels are not recognized. Vested Benefits are those benefits which are nonforfeitable under the plan's vesting provisions.

The Actuarial Present Value of Accumulated Plan Benefits is the amount resulting from the application of actuarial assumptions to the Accumulated Plan Benefits to reflect the time value of money and the probabilities of death, disability, withdrawal and retirement. Underlying these assumptions (described on the Actuarial Basis page) is an assumption of an ongoing plan. Since most Accumulated Plan Benefits are generally synonymous with "Accrued Benefits" as defined in the plan, the Actuarial Present Value of Accumulated Plan Benefits has also been called the Present Value of Accrued Benefits.

	10/1/2017	10/1/2018
NET ASSETS AVAILABLE FOR BENEFITS*	$ 19,828,487	$ 21,294,617
ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS		
Vested Benefits		
Participants Currently Receiving Payments	$ 10,391,765	$ 10,178,859
All Other Participants	7,523,579	8,981,027
TOTAL VESTED BENEFITS	$ 17,915,344	$ 19,159,886
Percent Funded	111%	111%
NONVESTED BENEFITS	462,488	954,703
EXCESS STATE MONIES RESERVE	101,933	-
TOTAL ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS	$ 18,479,765	$ 20,114,589
Percent Funded	107%	106%

* Actuarial Value of Assets

City of Panama City Beach
Police Officers' Pension Plan

Funded Status – Accrued Benefits (ASC 960) (Continued)

October 1, 2018

	10/1/2017	10/1/2018
ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS AS OF PRIOR VALUATION DATE	$ 17,449,634	$ 18,479,765
Increase (Decrease) During the Year Attributable to:		
Increase for Interest Due to the Decrease in the Discount Period	$ 1,357,273	$ 1,392,532
Benefits Paid	(967,438)	(1,023,227)
Benefits Accumulated, Turnover, Other Experience	640,296	973,123
Change in Actuarial Assumptions	-	292,396
Plan Amendment	-	-
Net Increase (Decrease)	$ 1,030,131	$ 1,634,824
ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS AS OF CURRENT VALUATION DATE	$ 18,479,765	$ 20,114,589

City of Panama City Beach
Police Officers' Pension Plan

State Required Exhibit

October 1, 2018

		10/1/2017		10/1/2018
A. Member Data				
1. Active Members		56		60
2. Retired Members and beneficiaries receiving benefits (including DROP)		26		26
3. Disabled Members receiving benefits		0		0
4. Terminated vested Members		3		4
5. Prior year active compensation	$	3,145,402	$	3,079,753
6. Annual benefits payable to retirees and beneficiaries (including DROP)	$	919,983	$	922,253
7. Annual benefits payable to disabled retirees	$	-	$	-
8. Annual benefits payable to terminated vested Members	$	84,071	$	101,126
B. Assets				
1. Actuarial value	$	19,828,487	$	21,294,617
2. Market value		20,008,130		21,594,222
C. Liabilities				
1. Actuarial present value of future expected benefit payments for active members				
a. Retirement benefits	$	12,472,057	$	13,768,933
b. Termination benefits		2,178,188		1,750,849
c. Death benefits		103,895		160,249
d. Disability benefits		111,592		128,583
e. Total	$	14,865,732	$	15,808,614
2. Actuarial present value of future expected benefit payments for terminated vested members	$	597,306	$	761,791
3. Actuarial present value of future expected benefit payments for members currently receiving benefits				
a. Service retired, beneficiaries and DROP	$	10,391,765	$	10,178,859
b. Disability retired		-		-
c. Total	$	10,391,765	$	10,178,859
4. Excess State Monies Reserve	$	101,933	$	-
5. Total actuarial present value of future expected benefit payments	$	25,956,736	$	26,749,264
6. Entry age normal accrued liability	$	21,918,136	$	22,727,045
7. Unfunded entry age normal accrued liability	$	1,910,006	$	1,132,824

State Required Exhibit (Continued)

October 1, 2018

	10/1/2017	10/1/2018
D. Statement of Accumulated Plan Benefits		
1. Actuarial present value of accumulated vested benefits		
a. Members currently receiving benefits (including DROP)	$ 10,152,705	$ 10,178,859
b. Other Members	6,280,396	8,981,027
c. Total	$ 16,433,101	$ 19,159,886
2. Actuarial present value of accumulated non-vested plan benefits	914,600	954,703
3. Excess State Monies Reserve	101,933	-
4. Total actuarial present value of accumulated plan benefits	$ 17,449,634	$ 20,114,589
E. Statement of Change in Accumulated Plan Benefits		
1. Actuarial present value of accumulated plan benefits as of Prior Valuation Date	$ 16,087,087	$ 18,479,765
2. Increase (decrease) during year attributable to:		
a. Plan amendment	0	0
b. Change in actuarial assumptions	0	292,396
c. Benefits paid	(904,816)	(1,023,227)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period	2,267,362	2,365,655
e. Net increase	$ 1,362,546	$ 1,634,824
3. Actuarial present value of accumulated plan benefits as of Current Valuation Date	$ 17,449,634	$ 20,114,589

City of Panama City Beach
Police Officers' Pension Plan

State Required Exhibit (Continued)

October 1, 2018

Actuarial Valuation Date	**10/1/2016**	**10/1/2017**
For Contribution Year	**2016-17**	**2017-18**
F. Past Contributions		
1. Total contribution required		
a. City		
i. Estimated Dollars, from Actuarial Valuation	$ 547,820	$ 484,726
ii. Percentage of Participants' Compensation	17.13%	15.39%
iii. Actual Compensation Under NRA	$ 3,130,244	$ 3,395,701
iv. Required, per new state interpretation = (ii.) x (iii.)	$ 536,211	$ 522,598
b. State (Estimated)	93,639	93,639
c. Member*	351,719	346,555
d. Total = (a.iv.) + (b.) + (c.)	$ 981,569	$ 962,792
2. Actual contributions made:		
a. City	$ 580,095	$ 577,269
b. State**	93,639	135,554
c. Member	344,327	373,527
d. Total	$ 1,018,061	$ 1,086,350
G. Net Actuarial Gain (Loss)	N/A	N/A
H. Disclosure of Following Items:	**10/1/2017**	**10/1/2018**
1. Actuarial present value of future salaries - attained age***	$ 23,687,208	$ 21,830,018
2. Actuarial present value of future employee contributions - attained age***	$ 2,377,751	$ 2,068,728
3. Actuarial present value of future contributions from other sources	N/A	N/A
4. Amount of active members' accumulated contributions	$ 2,407,180	$ 2,576,208
5. Actuarial present value of future salaries and future benefits at entry age	Not provided by system	
6. Actuarial present value of future employee contributions at entry age	Not provided by system	

* Determined by applying the required employee contribution rate (11.0%) to expected compensation for the year for participants under Normal Retirement Age (NRA)

** Excluding Excess Premium Tax Revenues that have not been used to provide Additional Benefits

*** Participants under Normal Retirement Age (NRA) only

City of Panama City Beach
Police Officers' Pension Plan

FS112.664 Requirements

Changes in the Net Pension Liability and Related Ratios – RP2000, 7.75% Interest

State Required Disclosure—Changes in the Net Pension Liability and Related Ratios

	Fiscal Year Ending									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Pension Liability										
Service Cost	N/A	N/A	N/A	N/A	N/A	751847	$857,325	$954,618	$979,603	$962,677
Interest Cost	N/A	N/A	N/A	N/A	N/A	255200	$1,884,505	$1,497,333	$1,607,333	$1,642,873
Changes of Benefit Terms	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$0	$0
Differences Between Expected and Actual Experiences	N/A	N/A	N/A	N/A	N/A	1629832.353	($524,160)	$292,523	$224,790	($735,069)
Changes of Assumptions	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$0	$0
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	-1037204.43	($926,647)	($904,816)	($967,438)	($1,056,519)
Net Change in Total Pension Liability	N/A	N/A	N/A	N/A	N/A	1599674.923	$1,291,023	$1,839,658	$1,844,288	$813,961
Total Pension Liability (Beginning)	N/A	N/A	N/A	N/A	N/A	21562636.66	$23,162,312	$24,453,335	$26,292,993	$28,137,281
Total Pension Liability (Ending)	N/A	N/A	N/A	N/A	21562636.66	$23,162,312	$24,453,335	$26,292,993	$28,137,281	$28,951,242
Plan Fiduciary Net Position										
Contributions—Employer	N/A	N/A	N/A	N/A	N/A	646022.66	$589,810	$590,606	$580,095	$577,269
Contributions—Member	N/A	N/A	N/A	N/A	N/A	307896.3	$325,235	$338,561	$344,327	$373,527
Contributions - State	N/A	N/A	N/A	N/A	N/A	111257	$117,870	$137,097	$142,663	$155,114
Net Investment Income	N/A	N/A	N/A	N/A	N/A	1757728.79	($232,058)	$1,402,233	$2,274,231	$1,641,966
Benefit Payments, Including Refunds of Member Contributions	N/A	N/A	N/A	N/A	N/A	-1037204.43	($926,647)	($904,816)	($967,438)	($1,056,519)
Administrative Expense	N/A	N/A	N/A	N/A	N/A	-52987.9	($69,185)	($64,805)	($72,937)	($82,818)
Other	N/A	N/A	N/A	N/A	N/A	0	$0	$0	$0	$0
Net Change in Plan Fiduciary Net Position	N/A	N/A	N/A	N/A	N/A	1732712.42	($194,975)	$1,498,876	$2,300,941	$1,608,539
Plan Fiduciary Net Position (Beginning)	N/A	N/A	N/A	N/A	N/A	14806469	$16,539,181	$16,344,206	$17,843,082	$20,144,023
Plan Fiduciary Net Position (Ending)	N/A	N/A	N/A	N/A	14806469	$16,539,181	$16,344,206	$17,843,082	$20,144,023	$21,752,563
County's Net Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	6623130.16	$8,109,128	$8,449,911	$7,993,257	$7,198,679
Net Position as a % of Pension Liability	N/A	N/A	N/A	N/A	N/A	0.714055735	85.95%	85.95%	91.91%	95.71%
Covered-Employee Payroll	N/A	N/A	N/A	N/A	N/A	2969176.52	$2,967,537	$2,967,537	$3,145,402	$3,395,701
Net Pension Liability as a % of Payroll	N/A	N/A	N/A	N/A	N/A	2.230628632	273.26%	273.26%	254.13%	211.99%

City of Panama City Beach
Police Officers' Pension Plan

FS112.664 Requirements

Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2017:

	2% Decrease (6.00%)	Current Rate (8.00%)	2% Increase (10.00%)
(1) Total Pension Liability	$28,137,281	$21,918,136	$16,459,207
(2) Plan Fiduciary Net Position	$20,144,023	$20,144,023	$20,144,023
(3) Net Pension Liability	$7,993,257	$1,774,113	($3,684,816)

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2018:

	2% Decrease (6.00%)	Current Rate (8.00%)	2% Increase (10.00%)
(1) Total Pension Liability	$28,951,242	$22,727,045	$17,491,820
(2) Plan Fiduciary Net Position	$21,752,563	$21,752,563	$21,752,563
(3) Net Pension Liability	$7,198,679	$974,483	($4,260,743)

Adequacy of Assets

The following table illustrates the number of years and fractions for which the Market Value of Assets are adequate to sustain expected retirement benefits.

Assumptions	Years and Fractions
RP 2000 Mortality and 8.0% Interest	23.25
RP 2000 Mortality and 6.0% Interest	17.92

City of Panama City Beach
Police Officers' Pension Plan

Reconciliation of DROP Participants and Assets

October 1, 2018

Participants as of 10/1/2017	2
New DROP Members	0
New DROP's, Withdrew during PY	0
All Other Withdrawals	(1)
Corrections	0
Participants as of 10/1/2018	1

	Total
Assets as of 10/1/2017	$135,893.27
Payments into DROP	50,885.72
Earnings	4,854.52
Distributions	(33,292.71)
Expenses	0.00
Adjustments	0.00
Assets as of 10/1/2018	$158,340.80

City of Panama City Beach
Police Officers' Pension Plan

Participant Data Summary

October 1, 2018

	Active	DROP	Terminated Vested	Disabled	Retired	Beneficiaries	Total
October 1, 2017	**56**	**2**	**3**	**-**	**24**	**-**	**85**
New Entrants	13						13
Retirements	-	-					-
Disabilities							-
Terminations							
a) with refund	(8)						(8)
b) without refund	(1)		1				-
DROP enrollments		(1)			1		-
Deaths							
a) with beneficiaries							-
b) without beneficiaries							-
Benefits Expired							-
Other							-
October 1, 2018	**60**	**1**	**4**	**-**	**25**	**-**	**90**
Average Age	37.3	53.7	47.7		64.5		

Active Participants as of 10/01/2017

	Males	Females	Total
Number of Participants	48	8	56
Average Age Nearest Birthday	36.7	33.7	36.3
Average Completed Years of Service	9.2	5.0	8.6
Average Compensation for Prior Year	$54,658	$43,050	$53,000

Active Participants as of 10/01/2018

	Males	Females	Total
Number of Participants	52	7	60
Average Age Nearest Birthday	37.9	33.0	37.3
Average Completed Years of Service	9.0	4.4	8.4
Average Compensation for Prior Year	$53,064	$45,779	$52,199

City of Panama City Beach
Police Officers' Pension Plan

Age and Service Distribution

October 1, 2018

	Years of Service							
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**Total**
Under 25	5	0	0	0	0	0	0	5
25-29	9	4	0	0	0	0	0	13
30-34	5	5	1	0	0	0	0	11
35-39	4	0	4	0	0	0	0	8
40-44	3	0	2	1	1	0	0	7
45-49	1	0	1	0	5	2	0	9
50-54	1	1	3	0	1	0	0	6
55-59	1	0	0	0	0	0	0	1
60-64	0	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0	0
Total	29	10	11	1	7	2	0	60

City of Panama City Beach
Police Officers' Pension Plan

Comparison of Actual vs. Assumed Salary Increases and Investment Returns

October 1, 2018

Salary Increases

Year Ended September 30,	Actual	Assumed
1989	24.1% *	6.0%
1990	4.7%	6.0%
1991	1.5%	6.0%
1992	7.6%	6.0%
1993	7.1%	6.0%
1994	4.5%	6.0%
1995	7.0%	6.0%
1996	15.7%	6.0%
1997	-0.3%	6.0%
1998	11.5%	6.0%
1999	13.8%	6.0%
2000	1.7%	6.0%
2001	13.5%	6.0%
2002	3.9%	6.0%
2003	6.7%	6.0%
2004	4.0%	6.0%
2005	4.7%	6.0%
2006	7.1%	6.0%
2007	9.9%	6.0%
2008	11.2%	6.0%
2009	3.1%	6.0%
2010	2.0%	6.0%
2011	8.8%	6.0%
2012	4.4%	6.0%
2013	2.4%	6.0%
2014	5.0%	6.0%
2015	8.5%	6.0%
2016	3.3%	6.0%
2017	1.9%	6.0%
2018	9.2%	5.0%
Last 5 Years, Compounded	5.5%	5.8%

Each figure is the rate of increase in weighted average compensation from the prior year, as reported for the actuarial valuations. The average includes only continuing active employees who have a full year of compensation in both the current and prior years, based on their reported dates of employment. Prior to September 30, 2001, employees with less than a full year of compensation in the prior year were also included by annualizing their compensation on a pro rata basis.

* Reflects change in the definition of Compensation for benefit purposes

Comparison of Actual vs. Assumed Salary Increases and Investment Returns (Continued)

October 1, 2018

Investment Return

Year Ended September 30,	Actual	Assumed
1989	6.87%	8.0%
1990	2.72%	8.0%
1991	2.95%	8.0%
1992	27.46%	8.0%
1993	10.29%	8.0%
1994	(0.67%)	8.0%
1995	15.73%	8.0%
1996	12.57%	8.0%
1997	23.52%	8.0%
1998	5.93%	8.0%
1999	11.27%	8.0%
2000	10.72%	8.0%
2001	(5.35%)	8.0%
2002	(3.70%)	8.0%
2003	3.71%	8.0%
2004	4.11%	8.0%
2005	5.67%	8.0%
2006	7.80%	8.0%
2007	10.53%	8.0%
2008	6.10%	8.0%
2009	3.86%	8.0%
2010	4.24%	8.0%
2011	3.10%	8.0%
2012	4.27%	8.0%
2013	9.64%	8.0%
2014	11.01%	8.0%
2015	8.31%	8.0%
2016	8.74%	8.0%
2017	11.72%	8.0%
2018	7.63%	7.8%
Last 5 Years, Compounded	9.50%	7.9%

The actual experience figures are the approximate time-weighted rates of return for the particular year. Through September 30, 2002, the return shown is from market value to market value; thereafter the return is from smoothed value to smoothed value. Income includes dividends, interest, and realized and unrealized gains (losses), based upon statements of Fund Balances provided by the City. The time-weighted rates reflect estimated transaction dates for income, employer, employee and state contributions, expenses, and disbursements.

City of Panama City Beach
Police Officers' Pension Plan

History of Excess Premium Tax Revenues

October 1, 2018

	Regular					
	Cash Received	Applicable "Frozen" Amount	Excess = Additional Premium Tax Revenue	Current Year Benefit Improve-ments	Set Aside for Future Improve-ments	Cumulative Set Aside for Future Improve-ments
9/30/1998	$ 47,792.65	$ 47,792.65	$ 0.00	$ 0.00	$ 0.00	$ 0.00
9/30/1999	46,261.19	47,792.65	0.00	0.00	0.00	0.00
9/30/2000	44,579.19	47,792.65	0.00	0.00	0.00	0.00
9/30/2001	48,325.16	47,792.65	532.51	0.00	532.51	532.51
9/30/2002	61,887.18	47,792.65	14,094.53	0.00	14,094.53	14,627.04
9/30/2003	62,368.77	47,792.65	14,576.12	0.00	14,576.12	29,203.16
9/30/2004	81,949.69	47,792.65	34,157.04	0.00	34,157.04	63,360.20
9/30/2005	89,105.73	47,792.65	41,313.08	0.00	41,313.08	104,673.28
9/30/2006	93,883.30	47,792.65	46,090.65	0.00	46,090.65	150,763.93
9/30/2007	89,105.73	47,792.65	41,313.08	192,077.01 (1)	0.00	0.00
9/30/2008	96,755.15	47,792.65	48,962.50	45,846.00 (2)	3,116.50	3,116.50
9/30/2009	92,821.89	47,792.65	45,029.24	45,846.00	0.00	3,116.50
9/30/2010	95,223.83	47,792.65	47,431.18	45,846.00	1,585.18	4,701.68
9/30/2011	94,730.77	47,792.65	46,938.12	45,846.00	1,092.12	5,793.80
9/30/2012	98,598.30	47,792.65	50,805.65	45,846.00	4,959.65	10,753.45
9/30/2013	99,510.28	47,792.65	51,717.63	45,846.00	5,871.63	16,625.08
9/30/2014	111,256.94	47,792.65	63,464.29	45,846.00	17,618.29	34,243.37
9/30/2015	117,869.72	47,792.65	70,077.07	45,846.00	24,231.07	58,474.44
9/30/2016	137,096.72	47,792.65	89,304.07	45,846.00	43,458.07	101,932.51
9/30/2017	142,662.63	47,792.65	94,869.98	45,846.00	49,023.98	150,956.49
9/30/2018	155,114.25	47,792.65	107,321.60	212,432.09	0.00	0.00

Notes:

(1) Additional Benefits adopted (increasing multiplier to 3.42%) with a lump sum cost in excess of the available $192,077.01.

(2) Additional Benefits adopted (increasing multiplier to 3.42%) with an annual cost initially valued as $45,846.

Summary of Major Plan Provisions

October 1, 2018

Effective Date: August 25, 1971.

Plan Year: October 1 to September 30.

Last Amendment: Restatement (Ordinance 669) effective June 8, 2000. First Amendment (Ordinance 715) effective March 8, 2001 (changing Employee Contributions from 7.0% to 9.7% and the multiplier from 3.00% to 3.25%). Second Amendment (Ordinance 794) effective April 10, 2003 (for various law and other changes). Third Amendment (Ordinance 811) effective July 10, 2003 (adding Early Retirement). Fourth Amendment (Ordinance 881) effective July 22, 2004 (adding 3% increasing annuities as an Optional Form of Payment and changing investment policy). Fifth Amendment (Ordinance 1029) effective May 11, 2006 (changing various provisions as required by new IRS rules). Sixth Amendment (Ordinance 1070) effective May 17, 2007 (changing Employee Contributions from 9.7% to 11.0% and the multiplier from 3.25% to 3.50%). Seventh Amendment (Ordinance 1083) effective July 26, 2007 (adding 5% fixed investment return option for DROP). Restatement (Ordinance 1159) adopted August 17, 2009. First Amendment (Ordinance 1222) effective February 9, 2012 (adding 300 hours of overtime cap). First Amendment (Ordinance 1419) Effective October 12, 2017 (adding supplemental benefit and 25 and out retirement provision).

Eligibility: All permanent Police Officers who have passed the medical examination.

Employee Contributions: 11% of Compensation (9.7% prior to May 17, 2007) and excluded from taxable income under IRC Section 414(h).

Compensation: Total compensation paid by the City for services rendered as reported on Form W-2, plus all tax deferred, tax sheltered or tax exempt amounts derived from elective employee contributions or salary reductions. Compensation includes regular pay, overtime (up to 300 hours) and other cash incentives. Payments of leave amounts (vacation, sick, etc.) upon termination of employment shall not be included. Auto allowance and mileage reimbursements shall not be included. Compensation in excess of the IRC Section 401(a)(17) limit is disregarded.

Average Final Compensation: The Compensation received during the 5 years out of the last 10 years of Credited Service divided by 60, which produces the highest average, or the career average as a full-time Police Officer, if greater.

Credited Service: Years and fractional parts of years of service as a Police Officer with the City and while making Employee Contributions.

Accrued Benefit: The benefit using the formula for the Normal Retirement Benefit, based upon the Average Final Compensation and Credited Service as of the date of the calculation. The Accrued Benefit is payable at the Normal Retirement Date in the Normal Form of Benefit.

Accumulated Contributions: A participant's contributions with interest compounded annually at 5.25% through June 8, 2000; after that date interest is no longer accrued.

Normal Retirement Date: The first day of the month coincident with or next following the earlier of (1) the date a participant attains age 50 and has completed at least 20 years of Credited Service or (2) the date he attains age 55 and has completed at least 10 years of Credited Service or (3) 25 years of Credited Service, regardless of age .

Early Retirement Date: The first day of the month coincident with or next following the date a participant attains age 50 and has completed at least 10 years of Credited Service.

Normal Form of Benefit: A monthly annuity for life with 10 years certain.

Optional Forms of Benefit: Benefits Actuarially Equivalent to the benefit provided under the Normal Form of Benefit; optional forms:

a. Life annuity (with no modified cash refund feature),
b. Joint and survivor annuity (100%, 75%, 66 2/3% or 50%; reducing upon death of participant only),
c. Level income option,
d. Any of the above forms, increasing 3% per year on each January 1, or
e. Lump Sum if under $5,000, or less than $100 per month.

Normal Retirement Benefit: A monthly benefit commencing at the Normal Retirement Date equal to 3.5% of Average Final Compensation multiplied by years of Credited Service, but not more than 100% of Average Final Compensation (excluding COLA's).

Late Retirement Benefit: Additional benefits will accrue after the Normal Retirement Date.

Early Retirement Benefit: A participant who elects to retire on or after his Early Retirement Date may receive an Early Retirement Benefit commencing at his Normal Retirement Date equal to his Accrued Benefit. If he further elects to have such benefit commence prior to his Normal Retirement Date, it shall be reduced 3% per year (.25% per month) for each period by which the benefit commencement date precedes his Normal Retirement Date. For this purpose Normal Retirement Date is determined based on the participant's actual years of Credited Service as a Police Officer at his termination date.

Death Benefit: The beneficiary of a participant who dies (1) during employment or after termination with a vested benefit and (2) with respect to whom benefit payments have not commenced shall be entitled to a Death Benefit equal to 100 times his monthly Accrued Benefit based on his Credited Service and Average Final Compensation as of the time of death. This benefit is payable in a lump sum unless the Police Officer elected that it be paid in an Actuarially Equivalent annuity or installments. The Plan also provides minimum Death Benefits based upon the vested, 10-year-certain portion of the Normal Form of Benefit or the refund of Accumulated Contributions.

Termination of Employment Benefit: A participant who terminates his employment after completing ten years of Credited Service for reason other than death, disability or retirement shall be entitled to a vested deferred monthly benefit commencing at his Normal Retirement Date equal to his Accrued Benefit. Any participant may withdraw his Accumulated Contributions; a vested participant who withdraws his Accumulated Contributions forfeits his rights to his vested Accrued Benefit or Death Benefit.

If a participant terminates after completing 10 years but prior to being eligible for retirement:

- With less than 20 years of Credited Service, his annuity can begin unreduced at age 55 or reduced (3% per year) between ages 50 and 55, or
- With 20 or more years of Credited Service, his annuity can begin unreduced at age 50.

Disability Benefit: A Participant who becomes totally and permanently disabled shall be eligible to receive a Disability Benefit in the form of an immediate monthly annuity for life with ten years certain as follows:

> **Job-Related Disability**: Without regard to years of Credited Service, a benefit equal to the greater of his Accrued Benefit or 42% of Average Final Compensation as of the date of disability.
>
> **Non-Job-Related Disability**: With ten or more years of Credited Service, a benefit equal to his Accrued Benefit as of the date of disability.

The Disability Benefit together with worker's compensation benefits may not exceed 100% of pay, as provided in the Plan. Optional Forms of Benefit may be elected.

Actuarial Equivalent: A benefit or amount of equal value, based upon the 1983 Group Annuity Mortality Table for Males and an interest rate of 8% per annum. In practice, in accordance with the prior document, the Table for Males is used for all Police Officers, regardless of sex, and the same table with ages set back 6 years is used for all beneficiaries and survivor annuitants, regardless of sex.

Maximum Benefits: IRC Section 415 limits apply as modified for governmental plans and for police and fire plans.

Deferred Retirement Option Program (DROP):

a. **Eligibility**: Normal Retirement.

b. **Benefit Amount**: The participant's Accrued Benefit calculated as of the beginning of the DROP period, accumulated quarterly with interest at a rate equal to either the Pension Plan's net investment performance during the quarter or a fixed guaranteed rate of 5% annually, plus cost-of-living adjustments, if any, during the DROP period. The participant elects which interest basis he wants upon his entry into the DROP, and may change such election only once during the DROP period.

c. **Form of Benefit**: When the DROP period ends (maximum 5 years), the employee must terminate employment. At that time, the accumulated DROP benefits will be distributed in the form of a lump sum, a rollover, or a nonforfeitable fixed annuity to the participant, or if deceased, such participant's designated beneficiary. In addition, the monthly annuity, including any COLA adjustments, will continue to the participant as otherwise provided in the Plan.

d. **Other Provisions**: A participant in DROP is no longer eligible for Death or Disability Benefits. Employee Contributions are no longer collected, and Credited Service and Average Final Compensation are frozen as of the date of entry into DROP.

$150 Per Month Supplemental Benefit: Police Officers who retire from active service only receive a supplemental monthly benefit of $150 payable for life only, without any COLA. This benefit is not provided for Police Officers who terminate prior to being eligible for early, normal or disability retirement, nor is it provided for beneficiaries of deceased Police Officers, nor their joint annuitants. However, when he retires a Police Officer may elect to have the $150 benefit paid in one of the reduced, Actuarially Equivalent Optional Forms of Benefit; this includes having it paid as a reduced, Actuarially Equivalent, increasing annuity under the 3% increasing annuity option.

Actuarial Basis

October 1, 2018

ACTUARIAL COST METHOD

Entry Age Normal with Frozen Initial Liability. Changes in actuarial assumptions are reflected in Normal Cost. Since at least 1999, all changes in plan benefits have been funded either by increases in the employee contribution rate or by increased Premium Tax Revenues.

ACTUARIAL ASSUMPTIONS

Investment Yield: The investment rate of earnings is assumed to be 7.75% per annum.

Interest on Employee Contributions: No interest is credited beyond June 8, 2000.

Mortality: RP-2000 Fully Generational Scale BB. Male – 10% Annuitant White Collar/ 90% Annuitant Blue Collar. Female – 100% Annuitant White Collar

Disability: Preretirement disability is assumed to occur in accordance with a standard scale of disability rates (1955 UAW, male and female). Sample rates are shown below:

	Probability of Disablement	
Age	**Male**	**Female**
20	0.03%	0.04%
30	0.04%	0.06%
40	0.07%	0.10%
50	0.18%	0.26%
60	0.90%	1.21%

Twenty-five percent of disabilities are assumed to be non-job-related.

Withdrawal: Preretirement withdrawals are assumed to occur in accordance with a standard scale of turnover rates (Frees 2003). Sample rates are shown below:

Age	**Years of Service**			
	< 2	2-4	5-9	>10
20	18.0%	14.2%	15.0%	18.8%
30	18.6%	13.6%	8.4%	4.8%
40	15.9%	10.4%	6.0%	4.2%
50	15.6%	8.9%	5.3%	3.5%

Salary Scale: Future salaries are assumed to increase at the rate of 5% per year.

Actuarial Value of Assets: Assets are valued using a 5-year smoothed market value without phase-in.

Retirement Rates: Active employees are expected to retire at a rate of 60% at first eligibility. They are then assumed to retire at a rate of 50% for each year thereafter. 100% of eligible participants are assumed to retire at age 60.

Timing of Contribution: The contribution is assumed to be made quarterly throughout the plan year.

Employees Covered: All participants as of the actuarial valuation date.

Expenses: Expenses for the current year are assumed to equal actual expenses for the prior year. If actual expenses for the current year differ from this estimate, a make-up contribution or credit is included.

Maximum Compensation: Compensation is limited to $275,000 projected to increase at the rate of 4% per annum.

Maximum Benefits: The $220,000 maximum for years ending in 2018 and other applicable Benefit Limitations under Section 415 are projected to increase at the rate of 4% per annum.

Completeness of Assumptions: All benefits and expenses to be provided by the Plan are recognized in the valuation. All known events are taken into account; no current trends are assumed to discontinue in the future.

All assumptions, with the exception of the investment return and mortality, were selected in conjunction with guidance provided by Aon. The demographic assumptions were selected as a result of an experience study, and are reviewed annually for reasonableness.

The investment return was selected by the Pension Board in conjunction with the investment consultant.

The mortality used is based on the mortality assumption used by the Florida Retirement System, as mandated by Florida Statute.

COMPARABILITY WITH PRIOR VALUATION

Significant Events During the Year: None.

Significant Changes in the Summary of Major Plan Provisions:

The plan was updated to allow Police Officers to retire with 25 years of service regardless of age (25 and out). A $150/month supplemental benefit was also added for Police Officers who retire from active service. Both of these plan changes are expected to be paid for through recognition of increased premium rebates.

Significant Changes in the Actuarial Cost Method or Actuarial Assumptions:

Expected Rate of Return, Salary Scale, Mortality, Termination, and Retirement rates were updated in accordance with the most recent experience study

Other Information Needed to Fully and Fairly Disclose the Actuarial Position of the Plan: None.

Actuarial Cost Method
"Entry Age Normal with Frozen Initial Liability"

October 1, 2018

An actuarial valuation is a series of mathematical calculations which project future benefits under a pension plan and future contributions to fund those benefits. The true cost of a pension plan cannot be determined until the last benefit is paid, because the true cost is the actual benefits ultimately paid, plus the expense of maintaining the plan, less the actual income earned on invested funds. Since funding cannot wait until the last benefit is paid, however, actuarial assumptions are used to project ultimate benefit levels and the reserves needed to provide them. An actuarial cost method is then used to establish a reasonable pattern of contributions to accumulate those reserves. The assumptions and cost method themselves, therefore, only impact on the incidence of funding, not the true cost. Each new valuation automatically corrects for any differences between the assumptions and actual experience, and the correction is spread over the current and future years of funding.

The Entry Age Normal with Frozen Initial Liability cost method spreads the funding of a portion of the pension benefits over the future service of all active participants and the balance is funded in a separate amortization schedule.

The Frozen Initial Liability is determined and fixed in the first year the cost method is adopted, although it may be redetermined or a supplemental piece added when the Plan is amended. The Frozen Initial Liability is the excess of the Present Value of Benefits over the sum of (a) the Present Value of Future Entry Age Normal Costs, (b) the Present Value of Future Employee Contributions, and (c) the Actuarial Value of Assets in the Trust Fund. The Entry Age Normal Cost is the annual cost determined by assuming the current Plan was always in effect and calculating the amount needed to produce level funding of benefits for all current participants from the date they would have entered the Plan. The Frozen Initial Liability may be amortized over as many as 40 years.

In each subsequent year, the order of steps is reversed. The Present Value of Future Normal Costs is calculated as the excess of the Present Value of Benefits over the sum of (a) the unfunded portion of the Frozen Initial Liability, (b) the Actuarial Value of Assets and (c) the Present Value of Future Employee Contributions.

The Normal Cost is developed by spreading the Present Value of Future City Normal Costs over the future compensation of all participants as a level percentage of pay, i.e., by dividing it by the Present Value of Future Compensation to get the Normal Cost Rate. The Normal Cost is the product of the Normal Cost Rate and the current Participants' Compensation. Actuarial gains or losses are included in the Present Value of Future Normal Costs, and are reflected in the Normal Cost Rate and thereby spread over the remaining future service of the participants in the Normal Cost. The Frozen Initial Liability is not adjusted for actuarial gains or losses.

The state minimum required contribution in a particular year is equal to the Normal Cost, plus a level amount which will amortize the Frozen Initial Liability and supplemental bases over the applicable number of years, plus expected and "make-up" expenses, less the Past Excess Contributions.

In the event of either a negative Normal Cost or an unfunded liability that is zero or less, the Cost Method will operate temporarily as the Aggregate Cost Method, in effect, until a positive unfunded liability is established at the time of a plan amendment, when a new Frozen Initial Liability is established.

The calculation of the contribution has been made in a manner that assumes quarterly payment during the Plan Year. In order to meet the state minimum funding requirements, the state minimum required contribution must be made at least quarterly during the Plan Year.

Disclosure Notes to the Financial Statements for Year Ended September 30, 2018

Summary of Significant Accounting Policies

Preserving the Police Officers' Retirement Fund is a major objective of the City of Panama City Beach. The City funds a defined benefit pension plan for its employees. They are treated as fiduciary funds in the financial sections. It is the goal to invest all funds in a manner that provides the highest investment return using authorized instruments while meeting the City's acceptable risk level. The primary objectives, in priority order, in investment activities shall be safety, liquidity, and yield.

Method used to value investments. Investments are reported at fair value. All deposits are in various financial institutions and are carried at cost. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates.

Plan Description

Plan Administration

The Board of Trustees oversees the management of the Police Officers' Pension Plan for the City of Panama City Beach. The board has established procedures to ensure that idle funds are invested as authorized by Florida statute, to earn the maximum interest.

Benefits Provided

See pages 30-32 of the Actuarial Report.

Contributions

The City's annual contribution to the pension trust is determined through the budgetary process and with reference to actuarial determined contributions. As of September 30, 2018, the most recent actuarial study shows a deficit of $0.97 million on a GASB 67 funding basis. The Board establishes rates based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. The contribution is designed to accumulate sufficient assets to pay benefits when due.

Investments

Asset Class	Target Allocation Total
Large Cap Equity	30%
Small Cap Equity	20%
International Equity	15%
Fixed Income	25%
Real Estate	5%
Cash	5%
Total	100%

No changes have been made to the pension plan investment policy over the past year.

Concentrations

The long-term expected rate of return on pension plan investments was confirmed appropriate using Aon's e-tool model assuming general inflation of 2.5%, which is a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges 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 and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of October 1, 2018 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Nominal Return	Long-Term Expected Real Rate of Return
Equity		
Large Cap U.S. Equity	6.50%	4.00%
Small Cap U.S. Equity	7.00%	4.50%
International (Non-U.S.) Equity (Developed)	7.50%	5.00%
Emerging Markets Equity	8.30%	5.80%
Fixed Income		
Long Duration Bonds – Gov't / Credit	4.30%	1.80%
Alternative Investments		
Real Estate (Broad Market)	6.40%	3.90%

Rate of Return

For the year ended September 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.2 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Receivables

The pension plan does not have receivables from long-term contracts with the City for contributions.

Allocated Insurance Contracts

The pension plan has not allocated insurance contracts that are excluded from pension plan assets.

Reserves

The pension plan has no reserves that are required to be disclosed under paragraph 30e of Statement 67.

Deferred Retirement Option Program (DROP)

The City offers a DROP to all employees who meet retirement eligibility. A description of the DROP can be found on page 32 of the actuarial valuation report.

Discount Rate

The discount rate used to measure the total pension liability was 8.00 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that Board of Trustees contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.