



City of Bay City Police and Fire Retirement System

Bay City, Michigan

Financial Statements
and Supplementary Information
For the Year Ended June 30, 2018

SK

SMITH & KLACZKIEWICZ, PC
CERTIFIED PUBLIC ACCOUNTANTS

City of Bay City Police and Fire Retirement System

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SMITH & KLACZKIEWICZ, PC
CERTIFIED PUBLIC ACCOUNTANTS

THOMAS J. SMITH, CPA
(989) 751-1167

ROBERT R. KLACZKIEWICZ, CPA
(989) 751-3064

A VETERAN OWNED BUSINESS

Independent Auditor's Report

To the Board of Trustees
City of Bay City Police and Fire Retirement System
Bay City, Michigan

Report on the Financial Statements

We have audited the accompanying financial statements of the *City of Bay City Police and Fire Retirement System*, (the "*Retirement System*") as of and for the year ended June 30, 2018 and the related notes to the financial statements, which collectively comprise the Retirement System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the *City of Bay City Police and Fire Retirement System*, as of June 30, 2018, and the changes in its fiduciary net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (pages 3 – 4), schedule of changes in the City's net pension liability and related ratios, schedule of employer contributions and schedule of investment returns (pages 25 – 27) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Retirement System's basic financial statements. The other supplementary information has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

Emphasis of Matter

As discussed in Note 1, the financial statements of the *City of Bay City Police and Fire Retirement System* are intended to present the fiduciary net position and the changes in fiduciary net position of the City of Bay City, Michigan that is attributable to the transactions of the Retirement System. They do not purport to, and do not present fairly the financial position of the City of Bay City, Michigan as of June 30, 2018 or the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Smith + Klayheirig PC

Saginaw, Michigan

November 12, 2018

City of Bay City Police and Fire Retirement System

Management's Discussion and Analysis

Using this Annual Report

This annual report consists of two parts – (1) the management's discussion and analysis (this section) and (2) the basic financial statements. The basic financial statements include the Statement of Fiduciary Net Position, the Statement of Changes in Fiduciary Net Position and the footnotes, which provide additional information that is essential to a full understanding of the data provided in the System's financial statements.

The *Statement of Fiduciary Net Position* presents information on all of the System's assets and liabilities, with the difference between the two reported as *net position restricted for pensions*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the System is improving or deteriorating.

The *Statement of Changes in Fiduciary Net Position* presents information that shows how the System's net position changed during the most recent fiscal year.

Condensed Financial Information

The System's net position increased \$89,641 or approximately 0.16% from the prior year. The table below compares key financial information for the current and prior year.

	<u>2018</u>	<u>2017</u>	<u>Change</u>
Net position restricted for pensions:			
Money market accounts	\$ 821,092	\$ 1,077,050	\$ (255,958)
Receivables	241,130	192,669	48,461
Investments:			
Fixed income	8,775,575	8,735,364	40,211
Equities	30,648,217	26,627,338	4,020,879
Other investments	<u>14,375,927</u>	<u>18,143,824</u>	<u>(3,767,897)</u>
Total assets	<u>54,861,941</u>	<u>54,776,245</u>	<u>85,696</u>
Liabilities – accounts payable	<u>82,507</u>	<u>86,452</u>	<u>(3,945)</u>
Net position restricted for pensions	<u>\$ 54,779,434</u>	<u>\$ 54,689,793</u>	<u>\$ 89,641</u>
Change in Fiduciary Net Position:			
Contributions	\$ 1,887,080	\$ 1,978,040	\$ (90,960)
Net investment income	3,986,189	6,191,541	(2,205,352)
Other revenue	71,133	65,035	6,098
Benefits and refunds to participants	(5,705,932)	(5,679,596)	26,336
Administrative expenses	<u>(148,829)</u>	<u>(160,372)</u>	<u>(11,543)</u>
Net change in fiduciary net position	<u>\$ 89,641</u>	<u>\$ 2,394,648</u>	<u>\$ (2,305,007)</u>

During the year, contributions to the retirement system were made in accordance with actuarially determined rates and benefit payments / refunds were made in accordance with plan provisions. Net investment income represented a rate of return of approximately 7.43% on System assets and appears consistent with the experience of other similarly situated employee benefit plans.

City of Bay City Police and Fire Retirement System

Management's Discussion and Analysis

Investment Objectives and Asset Allocation

The System's assets are invested in accordance with sound investment practices that emphasize long-term investment fundamentals. In establishing the investment objectives of the System, the Board has taken into account the time horizon available for investment, the nature of the System's cash flows and liabilities, and other factors that affect the System's risk tolerance.

In consideration of the System's investment goals, demographics, time horizon available for investment and the overall risk tolerance of the System, a long-term investment objective of income and growth has been adopted for the System's assets. The primary objectives of the System's assets are to fund all disbursements as they are due to meet the actuarial rate of return of 7.50% and to earn returns in excess of a passive set of market indexes representative of the System's asset allocation.

Consistent with the advice of investment advisors, the Board has selected the following target asset allocation strategy:

U.S. Fixed Income	20%
Global Fixed Income	5%
Large Cap Equity	28%
Small / Mid Cap Equity	24%
International Equity	10%
Real Estate	8%
Hedge Funds	5%

The Board recognizes that the asset mix will deviate from the targeted percentages due to market conditions. Therefore, a range has been established for each asset class to control the risk and maximize the effectiveness of the System's asset allocation strategy, while avoiding unnecessary turnover at the security level. It is the Board's policy to review the percentage allocation at least quarterly and to rebalance the assets toward the target allocation utilizing contributions, disbursements and / or cash positions to rebalance the asset mix.

Economic Factors and Next Year's Budgets and Rates

The actuarially determined contribution rates, as a percent of covered payroll, for the upcoming year ending June 30, 2019 have been identified as 31.32% for Police Patrol, 33.65% for Police Command, and 31.27% for Fire personnel. These rates reflect an overall decrease in the City's actuarially determined *dollar* contribution from \$1,427,997 for the year ended June 30, 2018 to \$1,338,389 for the year ending June 30, 2019. The Board plans to continue to evaluate the financial performance of the System's investments and to rebalance the asset mix, as necessary.

Contacting the System's Management

The financial report is intended to provide a general overview of the Plan's finances. If you have any questions about this report or need additional information, we welcome you to contact the City of Bay City Finance Department at 301 Washington Avenue, Bay City, Michigan 48708.

**City of Bay City Police and Fire
Retirement System**

Statement of Fiduciary Net Position

June 30, 2018

Assets

Cash and cash equivalents:

 Money market accounts \$ 821,092

Receivables:

 Employer contributions 93,495

 Employee contributions 71,742

 Interest 75,893

Total receivables 241,130

Investments, at fair value:

 Fixed income 8,775,575

 Equities 30,648,217

 Other investments 14,375,927

Total investments 53,799,719

Total assets 54,861,941

Liabilities - accounts payable 82,507

Net position restricted for pensions \$ 54,779,434

The accompanying notes are an integral part of these financial statements.

**City of Bay City Police and Fire
Retirement System**

Statement of Changes in Fiduciary Net Position

For the Year Ended June 30, 2018

Additions:

Contributions	
Employer	\$ 1,406,290
Plan members	480,790
Total contributions	<u>1,887,080</u>
Investment income	
Interest and dividends	843,848
Net appreciation in fair value of investments	3,399,277
Total investment income	4,243,125
Less investment expenses	<u>(256,936)</u>
Net investment income	<u>3,986,189</u>
Other revenue	<u>71,133</u>
Total additions	<u><u>5,944,402</u></u>

Deductions:

Benefit payments, including refunds of member contributions	5,705,932
Administrative expenses	148,829
Total deductions	<u>5,854,761</u>
Net increase (decrease) in fiduciary net position	89,641
Net position restricted for pensions	
Beginning of year	<u>54,689,793</u>
End of year	<u><u>\$ 54,779,434</u></u>

The accompanying notes are an integral part of these financial statements.

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

Note 1 – Summary of Significant Accounting Policies

Reporting Entity

The *City of Bay City Police and Fire Retirement System* (the “System”) is a single employer defined benefit pension plan established under City Charter and as such, is exempt from the reporting requirements of the United States Department of Labor and from federal taxes. The System is considered part of the City of Bay City financial reporting entity and is included in the City's financial report as a pension trust fund. Benefit provisions of the System are established and may be amended by the City Commission. The System is administered by a 5-member appointed Board of Trustees that is comprised of 1 police representative, 1 fire representative, 2 citizen representatives and the City Manager of the City of Bay City.

Accounting and Reporting Principles

The System follows accounting principles generally accepted in the United States of America (U.S. GAAP), as applicable to governmental units. Accounting and financial reporting pronouncements are promulgated by the Governmental Accounting Standards Board (GASB).

Basis of Accounting

The financial statements of the System are prepared on the accrual basis of accounting. System member contributions are recognized in the period they are due. The City's contributions to the System are recognized when due and they have made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the System.

Report Presentation

Valuation of Investments

Investments are reported at fair value. Securities which are traded on a national securities exchange are valued at the last reported sales price on the last business day of the System's fiscal year. Investments traded in the over-the-counter market and listed securities for no sale was reported on that date were valued at the last reported bid price. Investments for which market quotations are not readily available are valued at their fair values as determined by the custodian under the direction of the Board of Trustees, with the assistance of a valuation service; and cash deposits are reported at carrying amounts which reasonably approximates fair value.

The difference between aggregate fair value and the cost of investments along with realized gains and losses on sales of investments are reflected in the Statement of Changes in Fiduciary Net Position as net appreciation or depreciation in the fair value of investments.

Administrative Expenses

The System is administered by the City of Bay City. Administrative expenses such as administrative wages, telephone and office supplies are paid for by the City of Bay City and are reimbursed by the System. Administrative costs are financed through investment earnings. Investment management fees, actuarial, and investment counseling fees are paid by the System.

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Regulatory Status

The System is not subject to the reporting requirements of the Employee Retirement Income Security Act of 1974 (ERISA), as it has been established for the benefit of a governmental entity.

Note 2 – Description of the Retirement System

The System is a contributory plan which covers substantially all sworn personnel of the Bay City Police and Fire Departments. At year-end, participating employees consisted of the following:

Retirees and beneficiaries currently receiving benefits	171
Terminated vested members	13
Current active members	<u>68</u>
Total	<u><u>252</u></u>

Additional information regarding the System and its vesting and benefit provisions follows:

Police Patrol Officers:

Retirement Benefits

Pension benefits for employees shall be governed as it presently exists or as amended under Article XXVIII of the City Charter of the City of Bay City.

- a. An employee is eligible for retirement after ten (10) years of service with age fifty-five (55) at a two and one-half percent (2.5%) multiplier. An employee is eligible for retirement after twenty-five (25) years of service at a two and eight-tenths percent (2.8%) multiplier regardless of age. An employee becomes vested in the above plan after ten (10) years of service. The employee's contribution shall be ten percent (10%) of the member's gross wages, less overtime.
- b. An eligible employee's pension is calculated using the total number of years plus months of credited service and the applicable multiplier times their final average salary (best three (3) years of the last ten (10) years of service excluding accumulated sick leave payment), not to exceed seventy percent (70%) of the employee's calculated maximum pension base. A two and one-half percent (2.5%) multiplier shall be used for eligible employees retiring with less than twenty-five (25) years of credited service and with age fifty-five (55). A two and eight tenths percent (2.8%) multiplier shall be used for eligible employee retiring with twenty-five (25) years or more of credited service. For Police members hired after 7/1/2014, the multiplier is 2.0% of the final average compensation times years of service (FAC). FAC does not include sick leave.

The final average salary includes all types of monetary compensation that currently has a ten percent (10%) deduction as the employee contribution to the pension system, at the time such compensation is received by the employee, with exclusion of accumulated sick leave payment. It is noted that vacation day payment is currently included in the FAC. It is also noted that sick time payout is excluded in the FAC.

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

An employee is eligible to include in the calculation of maximum pension base, a maximum bonus pay average. The employee may include a five thousand-dollar (\$5,000) per year, and maximum bonus pay for the last three (3) calendar years (January – December) prior to retirement. An average of the allowable three (3) bonus pay years is included in the calculation of the maximum pension base. An employee is eligible for the inclusion of the bonus pay into the pension calculation, providing that, upon retirement, the employee contributes ten percent (10%) of the three (3) years bonus pay listed above to the employee's retirement system. Upon retirement, the employee may pay the ten percent (10%) contribution to the retirement system by deducting the contribution from a cash payout the employee may be receiving with the exclusion of annuity withdrawal, or may make a cash contribution to the retirement system. Bonus pay that may be included in the above mentioned five thousand-dollar (\$5,000), last three (3) year averages shall include types of monetary compensation that does not receive a ten percent (10%) deduction in the form of an employee contribution to the pension system, at such time the compensation is received by the employee. These types of monetary compensations include but are not limited to: overtime pay, cleaning allowance, clothing allowance, and health insurance waiver. It is noted that sick time payout is excluded from the bonus pay calculation.

- c. For the term of the contract, interest on an employee's contribution will be five percent (5%) after which time the interest calculation shall be governed as described, or as amended under Article XXVII of the City Charter of the City of Bay City.

Pension Continuation of Deceased Retiree's Spouse

Upon the death of a retiree (or non-duty death of a member), the surviving spouse shall receive a pension equal to one-half (1/2) of the retiree's current pension. Upon the surviving spouse's death, said pension shall terminate. Pension benefits will continue upon the remarriage of a surviving spouse. Employees retiring on or after January 1, 1998, shall be eligible for a pension continuation to their surviving spouse equal to sixty-five (65%) of the retiree's pension (regardless if the spouse remarries) effective upon their death if same shall occur on or after January 1, 2000. Otherwise, in the event of said retiree's death after January 1, 1998, but prior to January 1, 2000, their surviving spouse shall receive one-half (1/2) of the retiree's pension upon death, which amount shall then increase to sixty-five (65%) of the retiree's pension effective January 1, 2000.

Pension Escalator / Cost of Living Adjustments

Employees retiring shall receive a postretirement adjustment to their original pension benefit, (after recalculation due to annuity withdrawal), equal to three and one-half percent (3.5%) of the original benefit beginning on the fifth (5th) year anniversary of retirement; an additional three and one-half percent (3.5%) increase to the original pension benefit beginning on the tenth (10th) year anniversary of retirement; and finally, an additional increase three and one-half percent (3.5%) of the original pension benefit amount beginning on the fifteenth (15th) year anniversary of retirement. Police Patrol that retired between January 1, 1998 and June 2005 – 4.0%; July 1, 2005 through May 6, 2012 – 5.0%; May 7, 2012 and June 30, 2014 – 3.5%. This pension escalator should be calculated on credited service prior to July 1, 2014.

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

Police Command Officers:

Retirement Benefits

Pension benefits for employees shall be governed as it presently exists or as amended under Article XXVIII of the City Charter of the City of Bay City.

- a. An employee is eligible for retirement after ten (10) years of service with age fifty-five (55) at a two and one-half percent (2.5%) multiplier. An employee is eligible for retirement after twenty-five (25) years of service at a two and eight-tenths percent (2.8%) multiplier regardless of age. An employee becomes vested in the above plan after ten (10) years of service. The employee's contribution shall be ten percent (10%) of the member's gross wages, less overtime.

- b. An eligible employee's pension is calculated using the total number of years plus months of credited service and the applicable multiplier times their final average salary (best three (3) years of the last ten (10) years of service excluding accumulated sick leave payment), not to exceed seventy percent (70%) of the employee's calculated maximum pension base. A two and one-half percent (2.5%) multiplier shall be used for eligible employees retiring with less than twenty-five (25) years of credited service and with age fifty-five (55). A two and eight tenths percent (2.8%) multiplier shall be used for eligible employee retiring with twenty-five (25) years or more of credited service. The final average salary shall include all types of monetary compensation that currently has a ten percent (10%) deduction as the employee contribution to the pension system, at the time such compensation is received by the employee, with exclusion of accumulated sick leave payment. It is noted that vacation pay is currently included in the final average calculation. It is also noted that sick time payout is excluded in the final average calculation.

An employee is eligible to include in the calculation of maximum pension base, a maximum bonus pay average. The employee may include a five thousand-dollar (\$5,000) per year, maximum bonus pay for the last three (3) calendar years (January – December) prior to retirement. An average of the allowable three (3) bonus pay years is included in the calculation of the maximum pension base. An employee is eligible for the inclusion of the bonus pay into the pension calculation, providing that, upon retirement, the employee contributes ten percent (10%) of the three (3) years bonus pay listed above to the employee's retirement system. Upon retirement, the employee may pay the ten percent (10%) contribution to the retirement system by deducting the contribution from a cash payout the employee may be receiving with the exclusion of annuity withdrawal, or may make a cash contribution to the retirement system. Bonus pay that may be included in the above mentioned five thousand-dollar (\$5,000), last three (3) year averages shall include types of monetary compensation that does not receive a ten percent (10%) deduction in the form of an employee contribution to the pension system, at the time such compensation is received by the employee. These types of monetary compensation include but are not limited to: cleaning allowance, clothing allowance, and health insurance waiver. It is noted that sick time payout is excluded from the bonus pay calculation.

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

Pension Continuation for Deceased Retiree's Spouse

Upon the death of a retiree (or non-duty death of a member), the surviving spouse shall receive a pension equal to sixty-five percent (65%) of the retiree's current pension. Upon the surviving spouse's death, said pension shall terminate. Pension benefits will continue upon the remarriage of a surviving spouse. "Surviving spouse" shall mean and be limited to the person to whom the retiree/member was married to at the time the retiree/member retired/terminated his/her employment with the City.

Pension Escalator

Effective October 1, 1998, employees retiring after said date shall receive a postretirement adjustment to their original pension benefit (after recalculation due to annuity withdrawal) equal to five percent (5%) of the original benefit beginning on the fifth (5th) year anniversary of retirement; an additional five percent (5%) increase to the original pension benefit beginning on the tenth (10th) year anniversary of retirement; and finally, an additional increase of five percent (5%) of the original pension benefit amount beginning on the fifteenth (15th) year anniversary of retirement. This pension escalator is only calculated on credited service prior to July 1, 2014.

Firefighters:

Retirement Benefits

The pension benefits for all bargaining unit employees set forth in the City Charter of the City of Bay City, Article 28, shall be incorporated herein by reference including the following changes: it is understood that upon attainment of an employee's 60th birthday, contributions by the employer and employee will cease and employee's benefits will be frozen as of that date. For any employee who has as of July 1, 1980, attained the age of 60, his pension benefits will be frozen on July 1, 1980. An employee will become vested in the pension plan after ten (10) continuous years of service. Effective July 1, 2006, employees may retire after 25 years of service regardless of age, at full pension, to be calculated at the rate of two and eight-tenths (2.8) of his final average compensation multiplied by the number of years of credited service and fractions thereof not to exceed seventy percent (70%) of maximum pension base. Employee contribution shall remain at ten percent (10%). Effective July 1, 2006, employees may retire upon attaining ten (10) years of service with age fifty-five (55) at a two and one-half percent (2.5%) multiplier.

Pension Continuation for Deceased Retiree's Spouse

Upon the death of a retiree, the surviving spouse shall receive a pension equal to one-half (1/2) of the retiree's pension (regardless if the spouse remarries). Upon the said spouse's death, the spouse's pension shall terminate. Employees retiring on or after July 1, 1997, shall be eligible for a pension continuation to their surviving spouse equal to sixty-five percent (65%) of the retiree's pension (regardless if the spouse remarries) effective upon their death if same shall occur on or after July 1, 1999. Otherwise, in the event of said retiree's death after July 1, 1997, but prior to July 1, 1999, their surviving spouse shall receive one-half (1/2) of the retiree's pension upon death, which amount shall then increase to sixty-five percent (65%) of the retiree's pension effective July 1, 1999. Upon the said spouse's death, the spouse's pension shall terminate. Pension Escalator (Section 11:5) shall apply to above- mentioned deceased retiree's spouse benefit. "Surviving Spouse" shall mean and be limited to the person to whom the member was married at the time the member last terminated their employment with the City.

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

Pension Escalator

Effective July 1, 1997, employees retiring after said date shall receive a postretirement adjustment to their original pension benefit (after recalculation due to annuity withdrawal) equal to five percent (5%) of the original benefit beginning on the fifth-year anniversary of retirement; an additional five percent (5%) increase to the original benefit beginning on the tenth-year anniversary of retirement; and finally, an additional increase of five percent (5%) of the original pension benefit amount beginning on the fifteenth-year anniversary of retirement. The pension escalator shall only be calculated on credited service prior to January 1, 2014.

Police Chief, Deputy Police Chief, Fire Chief and Deputy Fire Chief:

The Police Chief, Deputy Police Chief, Fire Chief and Deputy Fire Chief are provided a contributory pension plan equal to the then-current coverage provided to: (1) in the case of Police Chief and Deputy Police Chief, the greater of the collective bargaining agreements for the Police Patrol Officers and the Police Command Officers; and (2) in the case of the Fire Chief and the Deputy Fire Chief, the same as the Firefighters collective bargaining agreement. Regardless, the Police Chief's and the Deputy Police Chief's along with the Fire Chief's and Deputy Fire Chief's pension plan is governed by the terms, conditions and requirements of the System. The employee's contribution shall be ten percent (10%) of the member's gross wages.

All Participating Employees:

Eligibility

In general, all Bay City Police and Fire Department personnel are eligible to participate in the system except volunteers, privately employed individuals, persons temporarily employed during emergencies and civilian employees.

Non-Duty Death in Service

Benefits are payable to the surviving spouse, if any, upon the death of a member. Benefits are equal to 50% of the service retirement benefit, but not less than 25% of the maximum benefit to the spouse and 15% of the final salary for one child (unmarried and under age 18) and equal shares of 25% of final salary for two or more children.

Deferred Retirement

Participants are eligible after 10 or more years of service. The benefit amount is calculated the same as a service retirement, except based on service, average final compensation and benefit multiplier in effect at termination. Benefits begin at age 55.

Duty Death in Service

Participants are eligible if death occurs in the line of duty or within five years following duty disability retirement from the same cause. Benefits are equal to 33% of the final salary to the spouse and equal shares of 25% of the final salary for unmarried children under the age of 18. Benefits are offset by workers' compensation payments.

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

Non-Duty Disability

Benefits are payable upon total and permanent disability of a member. The amount of the benefits is the same as a service retirement, with a minimum benefit of 25% of final salary. Benefits are offset by workers compensation payments.

Duty Disability

Benefits are payable upon total and permanent disability of a member in the line of duty. Benefits are 50% of average final compensation to the age of 55 and then at the age of 55 the benefit is the same as a service retirement, with additional service credit for the period of disability. Duty-related disability pension benefits are reduced by the amount of any workers' compensation benefits received.

Member Contributions

Participants are required to contribute 10% of their gross pay, with interest credited at 5% per year.

Annuity Withdrawal

Benefits are actuarially reduced if the member's contributions are withdrawn at retirement. The actuarial equivalence is based on the Pension Benefit Guarantee Corporation rates in effect on the date of the member's retirement.

Note 3 – Contributions

The City's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are designed to accumulate sufficient assets to pay benefits when due. During the year, the actuarially determined employer contribution rate was 41.45% of covered payroll for firefighters, 26.10% for police patrol and 34.09% for police command.

Subject to collective bargaining, Plan members are required to contribute 10% of their annual compensation to the System. If an employee leaves covered employment or dies before 10 years of credited service, accumulated employee contributions plus related investment earnings are refunded to the employee or designated beneficiary. Contribution requirements of System members and the City are established and may be amended by the City Commission.

Note 4 – Investments

State of Michigan statutes authorize the System to invest in bonds and other direct and certain indirect obligations of the U.S. Treasury; certificates of deposit, savings accounts, deposit accounts, or depository receipts of a bank, savings and loan association, or credit union, which is a member of the Federal Deposit Insurance Corporation, or National Credit Union Administration, respectively; and in commercial paper of corporations located in the State rated prime by at least one of the standard rating services.

In addition, the System is authorized to invest in investments authorized by Michigan Public Act 314 of 1965, including corporate stocks and bonds, U.S. government or federal agency obligation repurchase agreements, bankers' acceptances of U.S. banks, and mutual funds comprised of investments as outlined above. The System is also authorized by Michigan Public

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

Act 314 of 1965, as amended, to invest in certain reverse repurchase agreements, stocks, diversified investment companies, annuity investment contracts, real estate leased to public entities, mortgages, real estate, debt or equity of certain small businesses, certain State and local government obligations and certain other specified investment vehicles. The System's investment policy allows for all of these types of investments.

The System's investments are reported at fair value and are held in a trust fund administered by PNC Bank. At year-end there were no investments in, loans to, or leases with parties related to the retirement system. Amounts reported as investments are categorized as follows at year-end:

Fixed income	
*Corporate bonds	\$ 4,128,416
*Treasury bonds	2,745,209
*Asset backed securities	1,028,252
*Agency bonds	491,513
*Municipal bonds	132,434
*Other fixed income assets	86,543
Mutual funds	163,208
Total fixed income	8,775,575
Equities	
Corporate stock	20,158,684
Hedge funds	3,631,564
Mutual funds	2,671,989
Other equity	75,272
Total equities	26,537,509
Other investments	
Other equity	10,701,789
Real estate investment funds	7,784,846
Total other investments	18,486,635
Total investments	\$ 53,799,719

* represents a "debt security"

Interest Rate Risk

The System's investment policy does not have specific limits on maturities of debt securities as a means of managing its exposure to fair value losses arising from increasing interest rates. The System's investments in debt securities and their maturities at year-end were as follows:

<u>Years to Maturity</u>	<u>% of Debt Securities</u>	<u>Corporate</u>	<u>U.S. Treasury and Agency</u>	<u>Other</u>	<u>Total</u>
Less than 1	3.15%	\$ 270,977	\$ -	\$ 5	\$ 270,982
1 – 5	58.08%	3,224,923	1,690,500	86,545	5,001,968
6 – 10	33.19%	1,630,605	1,095,799	132,428	2,858,832
11 – 15	4.73%	30,163	377,217	-	407,380
16 or more	0.85%	-	73,205	-	73,205
Total		\$ 5,156,668	\$ 3,236,721	\$ 218,978	\$ 8,612,367

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

The fair value and ratings of the System's investments in debt securities at year-end were as follows:

<u>Rating</u>	<u>% of Debt Securities</u>	<u>Fair Value</u>
Moody's Aaa	45.03%	\$ 3,878,300
Moody's Aa2	1.93%	166,400
Moody's Aa3	1.10%	94,273
Moody's A1	4.16%	358,294
Other	47.78%	<u>4,115,100</u>
Total		<u>\$ 8,612,367</u>

Credit Risk

The System's investment policy does not have specific limits in excess of State law on credit risk for allowable debt securities as identified above. The credit rating for each investment type is identified in the above table of investments held at year-end.

Concentration of Credit Risk

The System's investment policy does not have specific limits on concentration of credit risk. The System's investment policy limits maturity value that may be invested in American Depositary Receipts to 15% of each equity portfolio. In addition, the System's investment policy limits maturity value that may be invested in corporate stock to 5% of the outstanding securities in one issuer.

At year-end, there were no individual investments with a fair value that represents 5% or more of the System's net position. However, amounts invested in three (3) separate mutual funds at year-end (Northern Trust Collective, WCM Focused International Growth Fund and Millennium International) represent 14.51%, 6.62% and 5.20% of the System's total assets, respectively.

Custodial Credit Risk – Investments

For an investment, custodial credit risk that, in the event of the failure of the counterparty, the System will not be able to recover the value of its investments that are in the possession of an outside party. State law does not require, and the System does not have a policy for investment custodial credit risk. At year-end, all investments were in the name of the System and the investments were held in trust accounts with each financial institution from which they were purchased.

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

Fair Value

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The Plan has the following recurring fair value measurements at year-end:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
<u>Investments by fair value level</u>				
Fixed income				
Debt securities:				
Corporate bonds	\$ -	\$ 4,128,416	\$ -	\$ 4,128,416
Treasury bonds	2,745,209	-	-	2,745,209
Asset backed securities	-	1,028,252	-	1,028,252
Agency bonds	-	491,513	-	491,513
Mortgages	-	132,429	-	132,429
Other fixed income assets	-	86,545	-	86,545
Mutual funds – fixed income	<u>163,208</u>	<u>-</u>	<u>-</u>	<u>163,208</u>
Total fixed income	<u>2,908,417</u>	<u>5,867,155</u>	<u>-</u>	<u>8,775,572</u>
Equities				
Corporate stock	20,158,682	-	-	20,158,682
ETF – equity	131,799	-	-	131,799
Mutual funds – equity	2,540,190	-	-	2,540,190
Other equity	<u>-</u>	<u>75,272</u>	<u>-</u>	<u>75,272</u>
Total equities	<u>22,830,671</u>	<u>75,272</u>	<u>-</u>	<u>22,905,943</u>
Total investments by fair value level	<u>\$ 25,739,088</u>	<u>\$ 5,942,427</u>	<u>\$ -</u>	<u>\$ 31,681,515</u>

Investments measured at the net asset value (NAV)

Municipal bonds	5
Hedge funds – Millennium	3,631,564
Other equity:	
Franklin Templeton Global	1,643,735
Northern Trust Russell	7,959,286
Brandywine Global Opportunistic	1,098,768
Other alternative investments:	
Real Estate Global Partnership Fund	580,180
WCM Focused International Growth Fund	2,851,016
Private equity:	
Alidade Capital Fund	679,511
Real estate investment funds:	
Guggenheim	1,293,295
American Realty Advisors	<u>2,380,844</u>
Total investments at the net asset value	<u>22,118,204</u>
Total investments measured at fair value	<u>\$ 53,799,719</u>

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

The System relies on quoted prices provided by third parties, such as pricing services or brokers to determine fair value of its investments. Those third parties use the following techniques to value the System's investments: Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing techniques. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

The System relies on valuations provided by third parties, such as pricing services or brokers to determine net asset value (NAV) per share (or its equivalent) of its investments.

	Note	Redemption Frequency	Redemption Notice Period	Fair Value
Municipal bonds	(1)	n/a	n/a	\$ 5
Hedge funds – Millennium	(2)	monthly	90 days	3,631,564
Other equity:				
Franklin Templeton Global	(3)	monthly	3 days	1,643,735
Northern Trust Russell 1000 index	(4)	daily	daily	7,959,286
Brandywine Global Opportunistic	(5)	monthly	10 days	1,098,768
Other alternative investments:				
Real Estate Global Partnership	(6)	see note (6)	n/a	580,180
WCM Focused International Growth	(7)	monthly	nominal	2,851,016
Private equity:				
Alidade Capital Fund	(8)	see note (8)	see note (8)	679,511
Real estate investment funds:				
Guggenheim	(9)	quarterly	90 days	1,293,295
American Realty Advisors	(10)	quarterly	see note (9)	2,380,844
Total investments at the net asset value				<u>\$ 22,118,204</u>

1. The reported amount is a nominal valuation of a municipal revenue bond that is in default with an original value of \$260,610 that cannot be redeemed.
2. The Fund invests opportunistically, and the universe of the eligible investments is not materially limited by any firm policies. Shares in the Fund generally may be redeemed, in whole or in part, upon at least 90 days' prior written notice to Millennium International and to the Administrator, as of the last day of each calendar quarter, subject to a 25% quarterly maximum. A holder of the shares may not redeem more than 25% of such holder's shares in any one quarter, *except that* the holder may, upon at least 90 days' prior written notice to Millennium International and to the Administrator, elect to redeem a specified amount or percentage of such holder's shares then held (which may be 100%) over the next succeeding quarterly redemption dates, in which event, the redemption request will be honored to the extent of: (i) 25% of the aggregate net asset value of such shares at the next following quarterly redemption date; (ii) (if necessary) 33⅓% of the aggregate net asset value of such shares at the next following quarterly redemption date; (iii) (if necessary) 50% of the aggregate net asset value of such shares at the next following quarterly redemption date; and (iv) (if necessary) 100% of the remaining

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

aggregate net asset value of such shares at the next following quarterly redemption date, subject to retaining an amount, as described below, pending audit and final determination of amounts due.

3. The Fund's investments in financial instruments are carried at fair value daily. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The Fund calculates the net asset value (NAV) per share at the close of the New York Stock Exchange (NYSE), generally at 4 p.m. Eastern time (NYSE close) on each day the NYSE is open for trading. This Fund has daily liquidity. Withdrawal requests received in good order prior to 4:00 p.m. Eastern Time will receive that day's closing price, and the funds will be available the following business day. A three business-day advance notification is appreciated.
4. The Russell 1000 Index is a composite stock price index of 1,000 common stocks selected by the Frank Russell Company (a financial service corporation unrelated to the Trustee or any of its affiliates) which was designed to furnish a measure of the composite price patterns of common stocks of U.S.-based companies that trade on U.S. exchanges or dealer systems and that rank in size from numbers 1 through 1,000 as weighted by market capitalization. Orders for admissions or withdrawals (other than those communicated through a record keeper) must be received by 9:30 AM Central Time on Valuation Date. Orders for admissions or withdrawals communicated through a record keeper via an automated process must be received by 7:30 AM Central Time one business day following the Valuation Date for which such admission or withdrawal is to be effective. Orders for admissions or withdrawals communicated through a record keeper via a manual process (i.e. fax) must be received by 6:30 AM Central Time one business day following the Valuation Date for which such admission or withdrawal is to be effective.
5. The fund is valued daily by the fund administrator. It is calculated by taking the daily value of all payables, receivables and end of day security values, divided by number of units outstanding. The Brandywine Investment Trust: International Opportunistic Fixed Income Fund requests 10 business days of notification before the wire date for redemptions (sometimes can accommodate less if urgent).
6. The Fund is organized for the purpose of investing in real estate private equity funds managed by underlying investment managers pursuing a variety of global real estate strategies. Under the terms of the Partnership Agreement, the Fund will be terminated on April 5, 2022. Real Estate Global Partnership Fund II is a closed end non-redeemable fund of funds. Unfunded commitments for the System at year-end were \$345,000.
7. Unless otherwise specifically provided for, WCM generally values each client's portfolio in accordance with the below procedures:
 - A security listed on a national securities exchange or national market is valued at its last sale price on its principal exchange or market on each valuation date, or if no sales occurred on such day, the last available closing price within 15 business days will be used. Such prices are obtained from WCM's third party pricing sources.
 - A security without an active trading market, or that is not valued on an active market within 15 business days, is assigned a fair value based on the Global Investment Performance Standards recommended valuation hierarchy:

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

- Objective, observable quoted market prices for similar investments in active markets. If not available or appropriate, then investments are to be valued using;
 - Quoted prices for identical or similar investments in markets that are not active (markets in which there are few transactions for the investment, the prices are not current, or price quotations vary substantially over time and/or between market makers). If not available or appropriate, then investments are valued based on;
 - Market-based inputs, other than quoted prices that are observable for the investment. If not available or appropriate, then investments are valued based on; Subjective unobservable inputs for the investment where markets are not active at the measurement date. Unobservable inputs are only used to measure the fair value to the extent that observable inputs and prices are not available or appropriate. Unobservable inputs reflect WCM's own assumptions about the assumptions that market participants would use in pricing the investment and are developed based on the best information available under the circumstances.
 - The fair valued price will be determined, based on the above criteria, by the Valuation Committee, consisting of the Operations Manager, Trader, a member of the Leadership Team, and an ISG representative. All fair valued securities must be approved by the CCO, who will be responsible for maintaining documentation of the valuation.
8. The Bay City Police and Fire Retirement System is a Limited Partner in the Alidade Capital Fund IV, LP ("Fund IV"), which generally invests in value added Real Estate Investments primarily located in secondary markets in the United States. Fund IV's Real Estate Investments are liquidated at the General Partner's discretion and are expected to be fully liquidated by the Partnership's termination date. The Partnership's initial termination date is April 10th, 2025. Subject to investor approval, the General Partner may extend the term of the Partnership for no more than three successive one-year periods. A Limited Partner may not sell, assign or transfer any interest in Fund IV without the prior written consent of the General Partner. Further, a Limited Partner may not withdraw from Fund IV without the General Partner's consent. As of June 30, 2018, the Bay City Police and Fire Retirement System had an unfunded commitment of \$320,000.00 to Fund IV.
9. Publicly-traded real estate securities are valued at the last reported sales price on the last day of the period. If the security was not traded in its principal market on this date, the security is valued based on quotations readily available from principal-to-principal markets, financial publications, or recognized pricing services, or a good-faith estimate of fair value. The Trustee uses the net asset value as a practical expedient to calculate the fair value of the Fund's investments in money market fund and Guggenheim *PLUS* Leveraged LLC ("*PLUS* Leveraged"), based on the Fund's pro rata interest in the net assets of the respective investments, as adjusted if appropriate. All valuations use financial information provided by the underlying fund managers. Each investment is accounted for at fair value as described in its respective valuation policy. If the Trustee determines that any value provided by the underlying fund managers does not fairly represent the fair value of any asset or liability, the Trustee will value such asset or liability and document the basis for such valuation. The investment in *PLUS* Leveraged is recorded at the net asset value reported by the Trustee as the manager of *PLUS*

City of Bay City Police and Fire Retirement System

Notes to Financial Statements

Leveraged. *PLUS* Leveraged invests in properties that are managed by third-party investment managers. The respective properties' fair values are obtained from a third-party valuation consultant each quarter based on restricted use appraisals in accordance with Uniform Standards of Professional Appraisal Practice. A self-contained appraisal report is obtained for each property from an independent real estate appraiser at a minimum of once every year. Each quarter, the Trustee reviews the methods and assumptions used by the valuation consultant and independent real estate appraisers to determine if the fair value of the properties is a good faith, reasonable and appropriate estimate, and that the resulting valuation is representative of fair value. The Trustee can override valuation estimates as deemed appropriate. The Trustee also estimates the value of the mortgage loans on these properties by calculating the net present value of future mortgage loan payments discounted at the rate at which a similar mortgage loan could be entered into on the valuation date. The fair value of *PLUS* Leveraged properties, mortgage loans and other assets and liabilities are used by the Trustee to estimate each investor's share of the net assets of *PLUS* Leveraged.

10. The Fund is an open-end diversified core real estate commingled fund whose primary objective is to provide returns that are attractive relative to other asset classes with stable income and the potential for market appreciation. Requests for redemptions of units in the Fund may be made at any time and are effective at the end of the calendar quarter in which the request is received by American. The units that are subject to a redemption notice may be redeemed in installments as funds become available for such purpose and the redemption price will be the value per unit determined based on American's estimate of fair value of the Fund's net assets as computed under generally accepted accounting principles at such time that each payment is made. Although American is required to use reasonable efforts to cause the Fund to pay the redemption price as soon as practicable after the effective date of the request, redemptions are subject to the availability of cash flow arising from investment transactions, sales and other Fund operations occurring in the normal course of business. American is not required to liquidate or encumber assets or defer investments in order to make redemptions.

Note 5 – Investment Income

Approximately 47% of the System's investments were invested in mutual funds at year-end. The mutual funds do not report earnings activity from interest and dividends, rather all earnings activity for the mutual funds is recorded only as net appreciation in the fair value of investments. The amount presented as interest and dividends income on the Statement of Fiduciary Net Position represents only those amounts earned on money market accounts, government securities, corporate bonds and common stock.

Note 6 – Plan Investments - Policy and Rate of Return

Investment Policy

The System's policy regarding the allocation of invested assets is established and may be amended by the Board by a majority vote of its members. The Board has determined that the strategic asset allocation policy is consistent with the achievement of the System's financial needs and overall investment objectives. Asset classes are selected based on their expected long-term returns, individual reward / risk characteristics, correlation with other assets, classes,

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

manager roles and fulfillment of the System’s long-term financial needs.

The Board established the following allocation range for each asset class in recognition of the need to vary exposure within and among different asset classes, based on investment opportunities and changing capital market conditions:

	Target Allocation	Range
Cash	0%	0 – 5%
U.S. Fixed Income	20%	17 – 23%
High Yield	0%	0 – 15%
Global Fixed Income	5%	0 – 10%
Large Cap Equity	28%	23 – 33%
Small / Mid Cap Equity	24%	20 – 28%
International Equity	10%	7 – 13%
Real Estate	8%	0 – 10%
Hedge Funds	5%	0 – 10%

Rate of Return

During the year, the annual money-weighted rate of return on System investments, net of System investment expenses, was 5.48%. The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts that are actually invested.

Note 7 – Net Pension Liability of the City

The components of the net pension liability of the City at year-end were as follows:

Total pension liability	\$ 74,311,785
Plan fiduciary net position	54,779,434
City’s net pension liability	\$ 19,532,351
Fiduciary net position as a percentage of the total pension liability	73.72%
Covered payroll	\$ 4,056,629
Net pension liability as a percentage of covered payroll	481.49%

Actuarial Assumptions

The total pension liability was determined based on an annual actuarial valuation as of June 30, 2018. The following actuarial assumptions were applied to compute the total pension liability:

Actuarial cost method	Entry age
Amortization method	Level percent of payroll, closed
Remaining amortization period	23 years
Asset valuation method	5 years smoothed market
Actuarial assumptions:	
Investment rate of return	7.5% (net of expenses)
Projected salary increases**	4.00% – 44.00% based on seniority
** includes inflation at	4.00%

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

Cost of living assumption adjustments 3.50-5.00% (per contract) paid on the 5th, 10th
and 15th anniversaries of retirement
COLA is only calculated on service
prior to 7/1/2014 (1/1/2014 for Fire)

Mortality rates were based on the RP 2000 Combined Healthy Mortality projected to 2014.

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of the most recent actuarial experience study, which was for the period July 1, 2010 through June 30, 2016.

Discount Rate

The discount rate used to measure the total pension liability was 6.30%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that City Contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the 6.30% long term expected rate of return on pension plan investments was applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the actuarial present values determined in conformity with GASB 67, paragraph 44.

Projected Cash Flows

Based on the aforementioned assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on the System's investments was applied to all periods of projected benefit payments to determine the total pension liability.

The long-term expected rate of return on the System's investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These 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 at year-end for each major asset class included in the System's target asset allocation as disclosed in Note 6 are summarized as follows:

	<u>Long-term Expected Real Rate of Return</u>
U.S. Fixed Income	1.25%
Global Fixed Income	1.00%
Large Cap Equity	7.35%
Small / Mid Cap Equity	9.35%
International Equity	5.45%
Alternatives	7.95%

City of Bay City Police and Fire Retirement System
Notes to Financial Statements

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

The following presents the System's net pension liability, calculated using the discount rate of 6.30%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1% lower (5.30%) or 1% higher (7.30%) than the current rate:

	1% Decrease in Rate to 5.30%	Assumed Discount Rate 6.30%	1% Increase in Rate to 7.30%
Net Pension Liability	\$ <u>28,081,554</u>	\$ <u>19,532,351</u>	\$ <u>12,348,413</u>



City of Bay City
Police and Fire Retirement System

Schedules of Required Supplementary Information

Schedule of Changes in the City's Net Pension Liability and Related Ratios

Last 10 Fiscal Years Ended June 30,

	2018	2017
Total pension liability		
Service cost	\$ 965,593	\$ 970,300
Interest	4,527,037	4,609,895
Changes of benefit terms	-	-
Differences between expected and actual experience	712,218	1,118,519
Changes in assumptions	928,112	8,045,729
Benefit payments, including refunds of member contributions	(5,705,932)	(5,679,596)
Net change in total pension liability	1,427,028	9,064,847
Total pension liability - beginning	72,884,757	63,819,910
Total pension liability - ending	\$74,311,785	\$72,884,757
 Plan fiduciary net position		
Contributions - employer	\$ 1,406,290	\$ 1,521,054
Contributions - member	480,790	456,986
Net investment income (loss)	4,057,322	6,256,577
Benefit payments, including refunds of member contributions	(5,705,932)	(5,679,596)
Administrative expenses	(148,829)	(160,372)
Other	-	-
Net change in fiduciary net position	89,641	2,394,649
Fiduciary net position - beginning	54,689,793	52,295,144
Fiduciary net position - ending	\$54,779,434	\$54,689,793
 Net pension liability - ending	 \$19,532,351	 \$18,194,964
 Fiduciary net position as a percentage of the total pension liability	73.72%	75.04%
Covered-employee payroll	\$ 4,056,629	\$ 4,204,892
Net pension liability as percentage of covered-employee payroll	481.49%	432.71%

* GASB Statement No. 67 was implemented as of June 30, 2014. Information from 2009 through 2013 is not available. Additional years will be presented on this schedule on a prospective basis.

See Notes to Required Supplementary Information

<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2009* to 2013*</u>
\$ 959,969	\$ 1,035,976	\$ 1,170,628	---
4,634,815	4,711,503	4,728,988	---
-	-	(301,242)	---
(737,134)	(1,732,221)	(734,651)	---
-	-	-	---
(4,710,583)	(5,288,925)	(4,770,135)	---
147,067	(1,273,667)	93,588	---
63,672,843	64,946,510	64,852,922	---
<u>\$63,819,910</u>	<u>\$ 63,672,843</u>	<u>\$ 64,946,510</u>	---
\$ 1,720,011	\$ 1,925,400	\$ 1,808,810	---
469,924	562,736	834,201	---
288,900	2,840,467	8,500,184	---
(4,710,583)	(5,288,925)	(4,770,135)	---
(142,325)	(167,467)	(141,341)	---
15,999	-	11,062	---
(2,358,074)	(127,789)	6,242,781	---
54,653,218	54,781,007	48,538,226	---
<u>\$52,295,144</u>	<u>\$ 54,653,218</u>	<u>\$ 54,781,007</u>	---
<u>\$11,524,766</u>	<u>\$ 9,019,625</u>	<u>\$ 10,165,503</u>	---
81.94%	85.83%	84.35%	---
\$ 4,380,402	\$ 4,308,434	\$ 4,523,121	---
263.10%	209.35%	224.75%	---

City of Bay City
Police and Fire Retirement System

Schedules of Required Supplementary Information

Schedule of Employer Contributions

Last 10 Fiscal Years Ended June 30,

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Actuarially determined contribution	\$1,406,290	\$1,521,054	\$1,720,011	\$1,925,400
Contributions in relation to the actuarially determined contribution	<u>1,406,290</u>	<u>1,521,054</u>	<u>1,720,011</u>	<u>1,925,400</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered-employee payroll	\$4,056,629	\$4,204,892	\$4,380,402	\$4,308,434
Contributions as percentage of covered-employee payroll	34.67%	36.17%	39.27%	44.69%

Notes to Required Supplementary Information

Actuarial valuation information relative to the determination of contributions:

Valuation date June 30, 2017

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	23 years
Asset valuation method	5 years smoothed market
Inflation	3.50% beginning with 6/30/2017; 4.00% prior
Salary increases	3.50% - 26.30%, including inflation
Investment rate of return	7.50%, net of investment expenses, including inflation
Mortality	RP 2000 Combined Healthy Mortality projected to 2014

2014	2013	2012	2011	2010	2009
\$1,808,810	\$1,979,219	\$1,725,255	\$1,622,079	\$1,483,085	\$1,618,068
<u>1,808,810</u>	<u>1,979,219</u>	<u>1,725,255</u>	<u>1,622,079</u>	<u>1,483,085</u>	<u>1,618,068</u>
<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
\$4,523,121	\$4,828,091	\$5,228,425	\$5,464,690	\$5,669,560	\$5,914,162
39.99%	40.99%	33.00%	29.68%	26.16%	27.36%

City of Bay City
Police and Fire Retirement System

Schedules of Required Supplementary Information

Schedule of Investment Returns

Last 10 Fiscal Years Ended June 30,

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Annual money-weighted rate of return, net of investment expense	5.48%	10.82%	-1.09%	5.93%

* GASB Statement No. 67 was implemented as of June 30, 2014. Information from 2009 through 2011 is not available. Additional years will be presented on this schedule on a prospective basis.

<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2009* to 2011*</u>
14.79%	11.47%	-1.36%	---

**City of Bay City Police and Fire
Retirement System**

Other Supplementary Information

**Schedule of Changes in Reserves
(Unaudited)**

For the Year Ended June 30, 2018

	Reserve for		Reserve for		Reserve for Retiree Benefit Payments	Excess Interest Reserve	Total
	Employee Contribution Police	Fire	Employer Contribution Police	Fire			
Beginning balance	\$ 6,111,160	\$ 2,896,008	\$ (1,387,046)	\$ (5,502,532)	\$ 52,298,754	\$ 273,449	\$ 54,689,793
Additions (deductions):							
Contribution by employees	357,551	123,239	-	-	-	-	480,790
Contribution by employers	-	-	929,547	476,743	-	-	1,406,290
Net investment income	1,502,534	712,035	341,030	1,352,894	-	-	3,908,493
Transfers:							
For retired employees	-	(1,012,919)	-	(2,455,600)	3,468,519	-	-
For required earnings	-	-	(1,298,009)	(5,149,311)	6,447,320	-	-
For excess earnings	(1,217,628)	(599,217)	1,217,628	599,217	-	-	-
For excess interest reserves	-	-	26,717	(14,741)	-	(11,976)	-
Transfer per actuary	-	-	(7,385,989)	4,075,212	3,310,777	-	-
Pension benefit payments	-	-	-	-	(5,705,932)	-	(5,705,932)
Employee refunds	-	-	-	-	-	-	-
Service credit purchase	(43,500)	-	-	-	43,500	-	-
Ending balance	<u>\$ 6,710,117</u>	<u>\$ 2,119,146</u>	<u>\$ (7,556,122)</u>	<u>\$ (6,618,118)</u>	<u>\$ 59,862,938</u>	<u>\$ 261,473</u>	<u>\$ 54,779,434</u>