The Employees' Retirement System
A Blended Component Unit of
The Maryland-National Capital Park and Planning Commission

Comprehensive Annual Financial Report

For the Fiscal Years Ended June 30, 2017 and 2016

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For the Fiscal Years Ended June 30, 2017 and 2016

Prepared by the Employees' Retirement System
A Blended Component Unit of
The Maryland-National Capital Park and Planning Commission
6611 Kenilworth Avenue, Suite 100
Riverdale, Maryland 20737

MISSION STATEMENT

The Mission of the Maryland-National Capital Park and Planning Commission Employees' Retirement System (ERS) is to prudently manage, protect, diversify, and administer the funds for the sole benefit of the members and beneficiaries to ensure sufficient assets are available to pay the promised benefits.

OUR CORE VALUES

Quality Customer Service

•

Accountability and Transparency

•

Professionalism and Respect

•

Trustworthiness and Stewardship

Comprehensive Annual Financial Report

For the Fiscal Years Ended June 30, 2017 and 2016

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EMPLOYEES' RETIREMENT SYSTEM
The Maryland-National Capital Park and Planning Commission
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http://ers.mncppc.org

Andrea L. Rose
Administrator

September 30, 2017

The Board of Trustees:

The Maryland-National Capital Park and Planning Commission ("Commission") Employees' Retirement System's (ERS) Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2017 is hereby submitted. The responsibility for the accuracy of the data and completeness and fairness of the presentation, including disclosures, rests with the ERS' staff. We believe all data in the report is accurate in all material respects, and is reported in a manner designed to present fairly the financial position and results of the operation of the ERS. All disclosures necessary to enable the reader to gain an understanding of the ERS' financial activities are included.

Management's Discussion and Analysis immediately follows the Report of Independent Public Accountants and provides a narrative introduction with an overview of the basic financial statements. Management's Discussion and Analysis complements this letter of transmittal and is suggested to be read in conjunction with this letter.

This CAFR has been prepared in accordance with the principles of governmental accounting and reporting promulgated by the Governmental Accounting Standards Board (GASB). The accrual basis of accounting has been used to record assets, liabilities, additions and deductions. Revenues are recorded when earned, regardless of the date of collection, and expenses are recorded when incurred, regardless of when payment is made. The independent public accounting firm of SB & Company, LLC was selected to conduct the ERS' audit. I am pleased to inform that the auditors issued an unmodified opinion, the highest possible outcome of the audit process.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting for the ERS' CAFR for the fiscal year ended June 30, 2016. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting and its attainment represents a significant accomplishment. We believe our CAFR continues to conform to the Certificate of Achievement program requirements, and we will submit our CAFR for fiscal year 2017 to the GFOA.

The Public Pension Coordinating Council (PPCC) recognizes public pension systems that meet the professional standards for public retirement system management and administration as set forth by the PPCC. The ERS was awarded the Public Pension Standards Award for Funding and Administration for 2016. The Award recognizes achievement of high professional standards in the area of plan funding and administration. The PPCC encourages all state and local governments to meet these standards.

Reporting Entity and Plan History

The ERS covers employees of the Commission, a body corporate of the State of Maryland, established by the Maryland General Assembly in 1927. The Commission is the bi-county agency empowered to acquire, develop, and administer a regional system of parks in the defined Metropolitan District, and to prepare and administer a general plan for the physical development of a defined Regional District for Montgomery and Prince George's Counties. The ERS was established as a single employer defined benefit pension plan effective July 1, 1972, in accordance with the Trust Agreement between the Commission and the Board of Trustees ("Board"). Prior to that date, Commission employees were covered under Maryland's State Retirement System ("Maryland State"). Employees who were covered by Maryland State were given the option of remaining with Maryland State or transferring to the ERS' Plan. Revisions to the Social Security tax structure and other fiscal considerations made it prudent to develop a new retirement plan, based on the principle of Social Security excess. Therefore, effective January 1, 1979, the Plan became the Maryland-National Capital Park and Planning Commission Employees' Retirement System, encompassing three defined benefit plans: Plan A, the original plan; Plan B, for non-police, integrated with Social Security; and Plan C, only for Park Police. Commission Park Police are not covered by Social Security.

On July 1, 1990, a collectively bargained Plan D replaced Plan C, which was closed, and all members transferred to the new Park Police Plan D. Effective July 1, 1993, again as a result of collective bargaining with the Park Police union, Plan D was closed to new employees, and Plan C was amended and reopened to provide benefits for Park Police Officers hired after July 1, 1993. Pursuant to a 2002 collective bargaining agreement, Plan D members were given a one-time election to transfer to Plan C on or before October 25, 2002.

Faced with continued fiscal challenges, the Commission approved a new defined benefit plan designated as Plan E for all non-police employees, Commissioners and appointed officials hired on or after January 1, 2013. Therefore, effective December 31, 2012, Plan B was closed to new employees.

Today, the ERS consists of five defined benefit pension plans: Plan A, the original plan; Plan B, for non-police, Plans C and D, for park police; and, Plan E, for non-police and appointed officials hired on or after January 1, 2013.

The administrative operations of the ERS are the responsibility of the Administrator and Staff employed by the Board. The Plan Document establishes all benefit provisions. The Commission reserves the right to amend the provisions of the ERS, consistent with the Trust Agreement, provided that no amendments may adversely affect the benefits that have accrued prior to the effective date of such amendment, except as may be legally required to continue to qualify the ERS under section 401(a) of the Internal Revenue Code, or any successor thereto of similar importance.

Benefits and Services Provided

The ERS provides normal and early retirement benefits, spouse and children survivor benefits, ordinary death benefits, and post-retirement death benefits for members of the ERS. Disability retirement benefits were prospectively removed in August 1982, with income replacement provided to employees through a long-term disability (LTD) insurance program administered by the Commission. Members on LTD receive free credited service until their normal retirement date. Annual cost-of-living adjustments are provided for ERS annuitants. The ERS has a comprehensive membership education program which includes on-site workshops and one-on-one counseling. In accordance with the Uniform Management of Public Employees Retirement Systems Act, the ERS provides Annual Benefit Statements that project benefits at normal retirement; a Popular Annual Financial Report, which contains a summary of key financial and actuarial information; and Summary Plan Descriptions, which describe the provisions and benefits of the ERS. The ERS communicates with members via *LifeTimes*, which is published monthly in the Commission's Update newsletter. One-on-one counseling is available to all active members to discuss benefits and retirement options. Employees are encouraged to take advantage of a retirement counseling session, which is provided for all those retiring from the Commission. The session includes a review of retirement benefits, options, and assistance is provided in completing the necessary paperwork in order to begin benefits. Information can also be accessed via the ERS' website, http://ers.mncppc.org.

Investment Results

For the year ended June 30, 2017, the ERS fund had a return of 14.7% versus its policy benchmark of 11.3%. The ERS fund return was 4.8% for the three-years ended June 30, 2017 and 8.2% for the five-years ended June 30, 2017 versus the policy index which returned 3.3% and 6.9%, respectively. Refer to the Investment Consultant's Report on page 51 for a market overview with investment results by asset class and a portfolio review highlighting the ERS' restructuring activities.

Initiatives & Accomplishments

Changes in economic and financial conditions caused the ERS to reconsider the investment return assumption for the fifth consecutive year. Beginning in 2013 with a 7.5% investment return assumption, the Board determined it prudent to annually evaluate and implement incremental reductions. Based on discussion and analysis in 2017, the Board reduced the current investment return assumption from 7.0% to 6.95% (effective July 1, 2017) which is consistent with continued trends across the country.

The Board approved restructuring the portfolio and amended the Statement of Investment Policy to add an 8% allocation to low volatility equities; reduce U.S. and international equity allocations from 23% to 19%; and, add a global infrastructure allocation under public real assets. As a result of this action, the Board changed Blackrock Institutional Trust Company's mandate from an S&P 500 Index Fund to an MSCI ACWI Low Volatility Index Fund; added a global infrastructure allocation to the State Street Global Advisors custom real assets strategy; and reduced equity allocations for legacy managers. Savings were obtained by utilizing a transition manager and transferring 37% of the portfolio inkind. The remaining portion of the portfolio was cost effectively executed in the open market.

Additional initiatives and accomplishments for fiscal year 2017 included implementation of a $90 million real assets mandate with Grosvenor Capital Management; selection of Wilshire Associates as investment consultant and Boomershine Consulting Group as actuary following competitive search processes; successful upgrade of the ERS' pension software; and continued monitoring of existing investment managers.

Internal Controls

It is the responsibility of management to develop and maintain systems of internal controls, which are designed to provide reasonable, but not absolute, assurances for the safeguarding of assets and the reliability of financial records. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits derived, and the valuation of costs and benefits requires estimates and judgments by management. Controls are also put in place to limit the risk of collusion. However, it should be recognized that all internal controls have inherent limitations.

The Trust Agreement requires an annual accounting of the ERS' operations and activities and that the results of this analysis be reported to the Commission. The ERS' Independent Public Accountants' unqualified opinion is the highest possible result of the audit process and their report on the basic financial statements is included in the CAFR on pages 16-17.

Annually, the Board prepares and presents an operating budget setting forth projected expenditures for the operations of the ERS for the Commission's review and approval. The Board also prepares certain projected expenses, including banking, investment consulting and investment manager fees for the Commission's information. The Board closely monitors the fees and expenses from consultants and professional advisors to ensure comparability to other public funds of the ERS' size and complexity. Although there is no formal restriction or budget guideline imposed by parties outside the Board, the Board is sensitive to the limitations imposed on the Commission by the two counties.

The revenues necessary to finance retirement benefits are accumulated through employee and employer contributions and income on investments. The Board establishes investment objectives and policies; determines appropriate asset allocation strategies; selects investment managers for appointment by the Commission; and evaluates investment performance. The ERS' investments are diversified, recognizing that a prudent policy preserves assets and maximizes earnings with appropriate risk, to provide asset growth consistent with long-term needs. For 2017 and 2016, the gain and (loss), including investment expense, were $111,662,056 and ($4,851,526), respectively. Total contributions decreased from $33,609,459 in 2016 to $27,019,385 in 2017. The decrease can be attributed primarily to actuarial asset value gains and assumption changes. Total deductions increased by 5.5% from $44,415,135 in 2016 to $46,864,049 in 2017. Pension and disability benefits and refunds account for $45,189,395, and the remainder of $1,674,654 was attributed to administrative expenses (see page 22).

Funding Status

The ultimate test for a retirement system is the level of funding achieved. The better the level of funding, the larger the ratio of assets accumulated to pay liabilities and the greater the level of investment income potential. The Schedule of Funding Progress directly illustrates the financial stability of the ERS and presents a standardized measure of projected plan liabilities (see page 70). This measure allows the reader to assess the funding status of the ERS on a going concern basis, and to assess progress made in accumulating sufficient assets to pay benefits when due. The measure is the actuarial present value of credited projected benefits and independent of the funding method used to determine contributions. An actuarial valuation performed as of July 1, 2016, indicated that the funded ratio of the actuarial value of assets to the actuarial accrued liability for benefits was 90.2%. As of July 1, 2016, the actuarial value of assets was $856,279,531, and the actuarial accrued liability was $949,298,226.

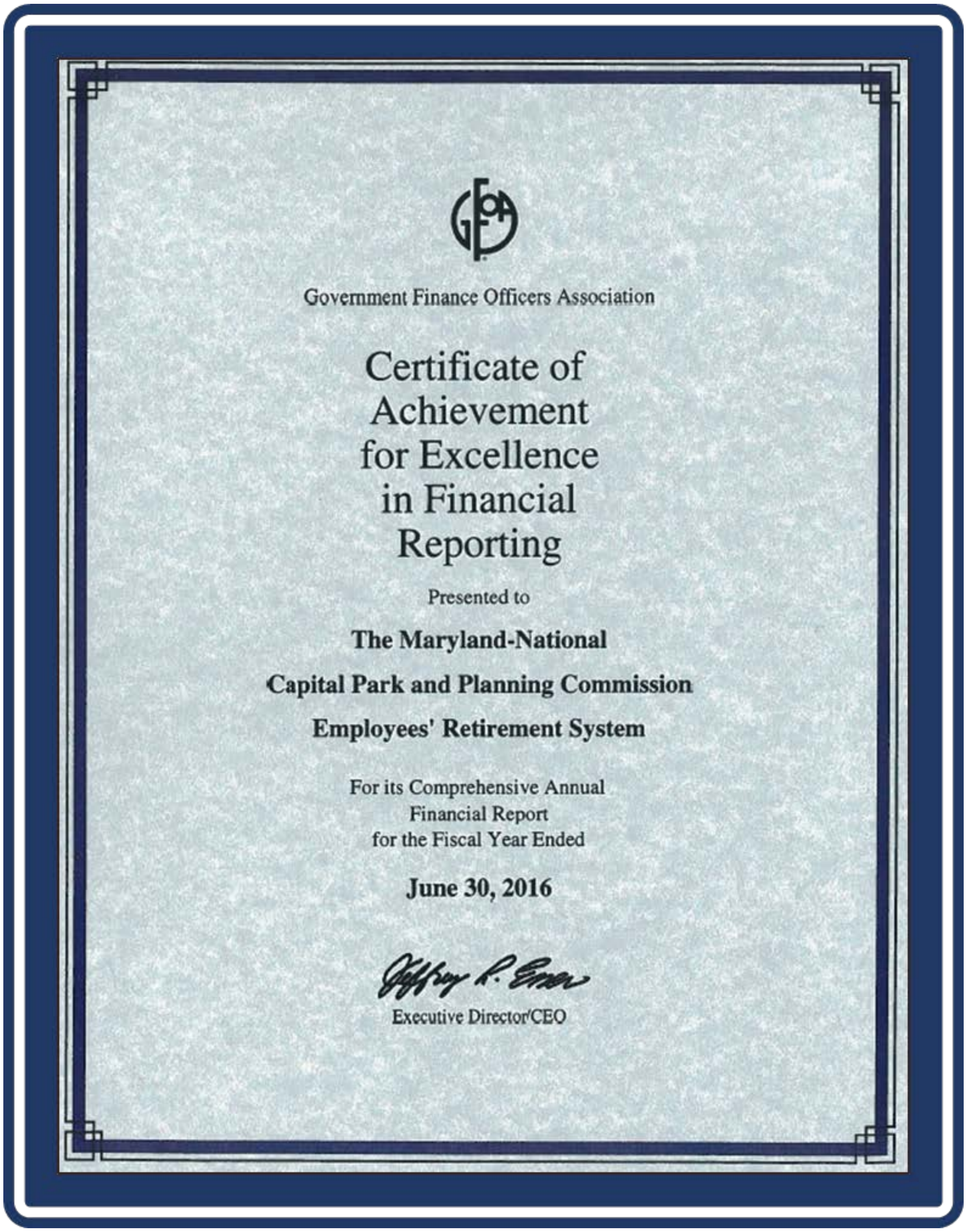
Acknowledgments

The preparation of this CAFR reflects combined efforts of the ERS' staff. Special recognition is extended to Sheila Joynes for her lead role. This CAFR is intended to provide complete and reliable information as a basis for making management decisions, determining compliance with legal provisions, and for determining responsible stewardship for the assets contributed by the members of the Commission. I thank the Board, Staff, consultants and service providers who have worked so diligently to assure the successful operation of the ERS.

Respectfully Submitted,

Andrea L. Rose

Andrea L. Rose
Administrator



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

The Maryland-National

Capital Park and Planning Commission

Employees' Retirement System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2016

Executive Director/CEO

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
_2016_

Presented to

The Maryland-National Capital Park and Planning Commission Employees' Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H. Winkle

Alan H. Winkle
Program Administrator

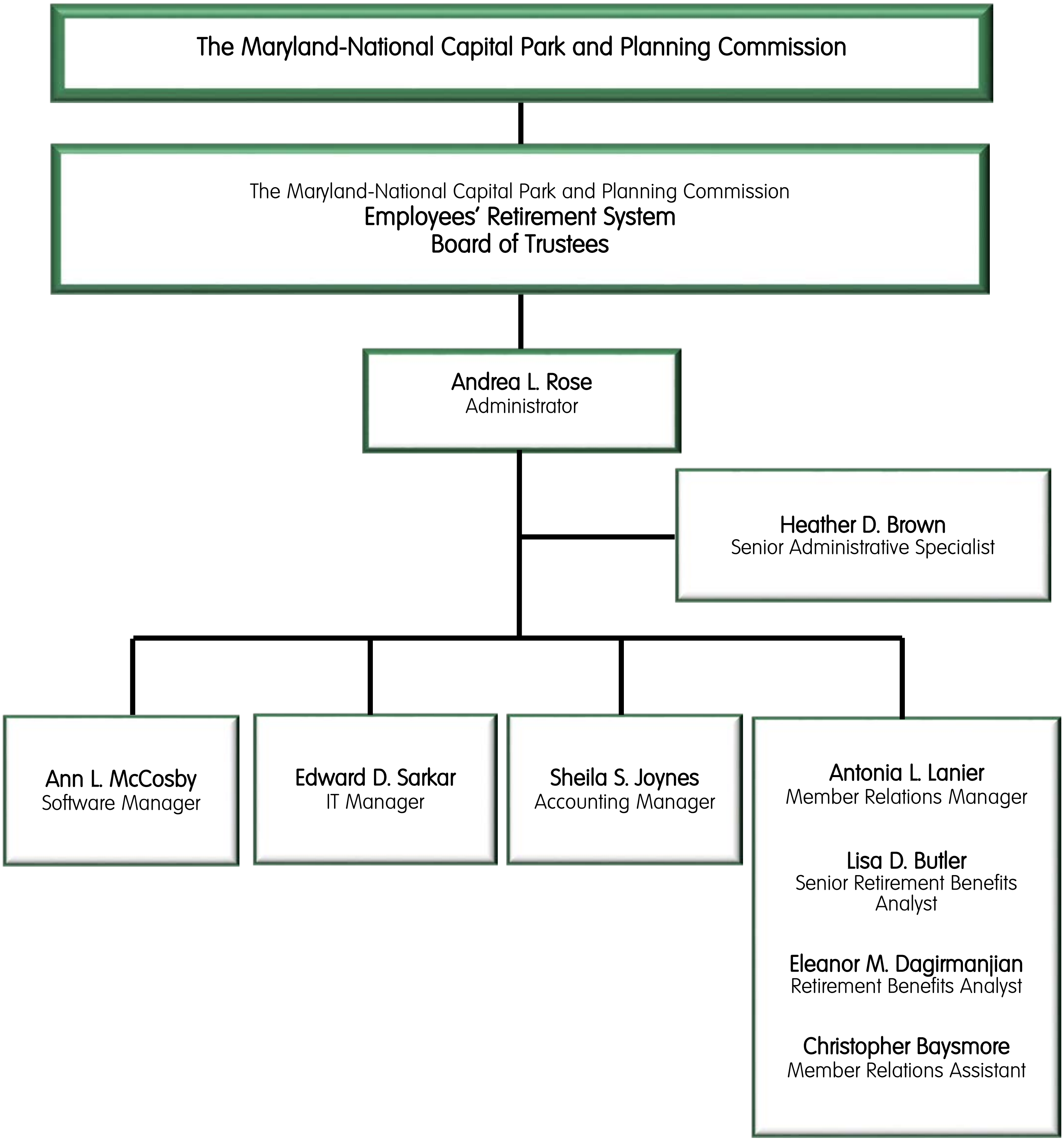
BOARD OF TRUSTEES

The Board consists of 11 appointed and elected members as adopted by the Commission on July 24, 2001:

- Two Commissioners, one each from Montgomery and Prince George's counties, appointed by the Commission.
- The Commission's Executive Director, Ex-Officio, concurrent with tenure in office.
- The Commission's Secretary-Treasurer, Ex-Officio, concurrent with tenure in office.
- Three Open Trustees, one each from Montgomery and Prince George's counties and one from the Bi-County office (effective July 2003), as a result of an election conducted by the ERS.
- Two Public Members, one each from Montgomery and Prince George's counties, appointed by the Commission.
- Two Represented Trustees, one each from the Municipal and County Government Employees' Organization (MCGEO) and the Fraternal Order of Police (FOP). The MCGEO Representative is selected by the Chief Executive Officer of MCGEO and the FOP Representative is selected pursuant to an internal election process established by the FOP. Represented trustees continue in office until replaced by their successors.

Trustees serve for three-year terms. Trustees elect a chairman and vice chairman to serve for a two-year term. Generally, the Board meets on the first Tuesday of every month, except for August. Board meetings are open to all employees and members of the public. Members of the Board may be contacted in writing through the ERS. Announcements regarding the Board of Trustees are posted on the ERS' website http://ers.mncppc.org and in the Commission's monthly newsletter, *Update.*

ORGANIZATIONAL & REPORTING STRUCTURE



Staff, Consultants & Professional Service Providers

STAFF

Andrea L. Rose
Administrator

Heather D. Brown
Senior Administrative Specialist

Member Relations
Antonia L. Lanier
Member Relations Manager

Lisa D. Butler
Senior Retirement Benefits Analyst

Eleanor M. Dagirmanjian
Retirement Benefits Analyst

Christopher Baysmore
Member Relations Assistant

Technical and Accounting Services
Sheila S. Joynes
Accounting Manager

Ann L. McCosby
Software Manager

Edward D. Sarkar
IT Manager

CONSULTANTS & PROFESSIONAL SERVICE PROVIDERS

Actuary
Boomershine Consulting Group, L.L.C.

Auditor
SB & Company, LLC

Banking
The Northern Trust Company
Bank of America

Investment Consultant
Wilshire Associates, Inc.

Legal
GROOM Law Group
M-NCPPC Legal Department
Robbins Geller Rudman & Dowd, LLP

Note: For the Investment Manager Directory see page 50, and for the Schedule of Broker Commissions see page 60.

Employees' Retirement System
The Maryland-National Capital Park and Planning Commission
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Riverdale, Maryland 20737
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***
Hours of Service
Monday-Friday
8 a.m. to 5 p.m.

FINANCIAL Section

SB & COMPANY, LLC
KNOWLEDGE • QUALITY • CLIENT SERVICE

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Board of Trustees
The Maryland National Capital Park and Planning Commission Employees' Retirement System

Report on the Financial Statements

We have audited the accompanying financial statements of The Maryland-National Capital Park and Planning Commission Employees' Retirement System (the ERS), as of June 30, 2017 and 2016, and for the years then ended, and the related notes to the financial statements, which collectively comprise the ERS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The ERS' 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 the financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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 respective fiduciary net position of the ERS, as of June 30, 2017 and 2016, and the respective changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

200 International Circle • Suite 5500 • Hunt Valley • Maryland 21030 • P 410.584.0060 • F 410.584.0061

SB & COMPANY, LLC
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Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, Schedule of Money-Weighted Rate of Returns, and Notes to Required Supplementary Information 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, who 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 audits 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 audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the ERS' basic financial statements. The Schedule of Administrative Expenses, Schedule of Investment expenses, and Schedule of Payments to Consultants, the Introductory Section, Investment Section, Actuarial Section, and Statistical Section, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedule of administrative expenses, schedule of investment expenses, and schedule of payments to consultants are the responsibility of management and were derived from, and relate directly to, the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information as listed in the previous paragraph is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory Section, Investment Section, Actuarial Section, and Statistical Section have not been subjected to the auditing procedures applied in the audits of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

SB & Company, LLC

Hunt Valley, Maryland
September 26, 2017

Management's Discussion & Analysis

This section of the Report provides readers with a narrative overview and analysis of the financial activities of the Maryland-National Capital Park and Planning Commission Employees' Retirement System (ERS) for the fiscal years ended June 30, 2017, 2016 and 2015. We encourage readers to consider the information presented here in conjunction with basic financial statements to enhance their understanding of the ERS' financial performance.

FINANCIAL HIGHLIGHTS

- The ERS' assets exceeded liabilities by $868.2 million and $776.3 million as of June 30, 2017 and 2016, respectively. Of this amount, $868.2 million and $776.3 million may be used to meet the obligations of current and future retirees and beneficiaries. During 2017, total fiduciary net position held in trust for pension benefits increased by $91.8 million, or 11.8%, due to investment gains and decreased by ($15.7) million, or (2.0%) during 2016.

- The ERS' Net Pension Liability as of June 30, 2017 is $122,485,248. The ratio of the Fiduciary Net Position to the Total Pension Liability is 87.6%**.**

OVERVIEW OF THE FINANCIAL STATEMENTS

Management's Discussion & Analysis is intended to serve as an introduction to the ERS' basic financial statements. The basic financial statements contain two components: the ERS' Financial Statements and the Notes to the Financial Statements. In addition to the basic financial statements, this report also contains the following additional supplementary information required by the Governmental Accounting Standards Board: a Schedule of Changes in Net Pension Liability and Related Ratios, a Schedule of Employer Contributions, a Schedule of Money-Weighted Rate of Returns, and Notes to Required Supplementary Information.

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

The Statements of Changes in Fiduciary Net Position present information showing how the ERS' net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, additions to and deductions from net position are reported in the statements for some items that will only result in cash flows in future fiscal periods (e.g. unrealized gains or losses on investments).

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

The Schedules of Changes in Net Pension Liability and Related Ratios, Employer Contributions and Money-Weighted Rate of Returns present historical trend information about the ERS. This information is intended to improve financial reporting for decision making, accountability and transparency.

Financial Analysis of the System

Fiduciary Net Position and Changes in Fiduciary Net Position: The following table reflects the ERS' net position and changes in net position as of and for the years ended June 30, 2017, 2016 and 2015 (in thousands).

	June 30, 2017	June 30, 2016	June 30, 2015
Assets			
Total assets	$ 908,613	$ 817,691	$ 848,205
Liabilities			
Total liabilities	40,457	41,353	56,209
Fiduciary net position restricted for pensions	**$ 868,156**	**$ 776,338**	**$ 791,996**

	June 30, 2017	June 30, 2016	June 30, 2015
Changes in fiduciary net position			
Total additions, net	$ 138,681	$ 28,758	$ 37,830
Total deductions, net	46,864	44,415	41,970
Net increase/(decrease) in fiduciary net position	**$ 91,817**	**$ (15,657)**	**$ (4,140)**

Assets

The largest component of fiduciary net position is the ERS' investments. As of June 30, 2017, 2016 and 2015, cash and investments amounted to approximately $907.8 million, $816.6 million, and $847.0 million, respectively. In 2017, the net increase in fiduciary net position was as a result of the net gain in the fair value of investments. In 2016 and 2015, the decrease in fiduciary net position resulted primarily from a net loss from investing activities. Total receivables of $.8 million, $1.0 million and $1.2 million represent accrued income on investments and receivables of member contributions as of June 30, 2017, 2016 and 2015, respectively.

Liabilities

Liabilities are primarily comprised of amounts payable on securities lending transactions and investments payable. Securities lending liabilities amounted to approximately $38.5 million, $38.9 million, and $34.0 million as of June 30, 2017, 2016 and 2015, respectively. These outstanding balances are offset with cash and investments being held as collateral on securities lending transactions. Investments payable represent purchases not settled by June 30 of each year. Investments payable were approximately $.6 million, $1.4 million, and $21.0 million as of June 30, 2017, 2016 and 2015, respectively.

Additions

The primary sources of net additions for the ERS include employer and member contributions and investment income. The following table reflects the source and amount of additions during the fiscal years ended June 30, 2017, 2016 and 2015 (in millions):

	June 30, 2017	June 30, 2016	June 30, 2015
Employer contributions	$ 20.3	$ 27.2	$ 28.2
Member contributions	6.7	6.4	6.3
Net investment gain/(loss)	111.7	(4.9)	3.3
Net Additions	**$ 138.7**	**$ 28.7**	**$ 37.8**

Financial Analysis of the System (continued)

Contributions

During 2017, the actuarial recommended employer contributions to the ERS decreased from 20.1% ($27,191,305) to 14.3% ($20,268,189) of covered payroll. The decrease in employer contributions is due to actuarial asset value gains and assumption changes related to the cost-of-living adjustment. Effective July 1, 2007, employer contributions are paid based on the prior year's valuation. The ERS uses a five-year asset smoothing method to determine the actuarial value of plan assets. During the period of July 1, 2015 through June 30, 2016, investment performance on the actuarial value of assets was 5.42%. Over the five-year period ending on the valuation date, July 1, 2016, the return on the actuarial value of assets was 6.71%.

Net Investment Income

The net investment gain for the ERS totaled $111.7 million in 2017 and $3.3 million in 2015. In 2016, there was a net investment loss that totaled ($4.9) million. In 2017, the $111.7 million investment gain was comprised of a net appreciation in fair value of investments of $104.8 million, $10.3 million in dividends and interest, $.2 million from securities lending, and $3.7 million advisory and management fees. In 2016, the ($4.9) million investment loss was comprised of a net depreciation in fair value of investments of ($10.9) million, $9.3 million in dividends and interest, $.1 million from securities lending, and $3.3 million advisory and management fees. In 2015, the $3.3 million investment income was comprised of a net depreciation in fair value of investments of ($.9) million, $7.0 million in dividends and interest, $.1 million from securities lending, and $2.9 million advisory and management fees.

Deductions

The deductions from the ERS include the payment of retiree and survivor benefits, participant refunds and administrative expenses. Deductions for 2017, 2016 and 2015 totaled $46.9 million, $44.4 million, and $42.0 million, respectively. Such amounts represent increases of 5.5% and 5.8% over 2016 and 2015, respectively. At the beginning of fiscal year 2017, eligible retirees received a .1% cost-of-living adjustment which contributed to the 5.5% increase in deductions from 2016 to 2017**.** The following table reflects the ERS' deductions by type in 2017, 2016, and 2015 (in thousands):

	2017	2016	2015
Benefits	$ 44,628	$ 42,258	$ 39,992
Refunds	561	461	391
Administrative expenses	1,675	1,696	1,587
Total Deductions	**$ 46,864**	**$ 44,415**	**$ 41,970**

Request for Information

This financial report is designed to provide an overview of the ERS. Questions concerning any of the information provided in this report should be addressed to Andrea L. Rose, Administrator, The Maryland-National Capital Park and Planning Commission Employees' Retirement System, 6611 Kenilworth Avenue, Suite 100, Riverdale, Maryland 20737.

STATEMENTS OF FIDUCIARY NET POSITION

June 30, 2017 and 2016

	2017	2016
INVESTMENTS AT FAIR VALUE (note 3)		
Fixed income securities	$ 207,824,778	$ 205,713,476
International fixed income securities	4,087,352	3,560,907
Venture capital/alternative investments	99,602,371	73,242,760
Corporate stock	381,674,975	323,720,189
International corporate stock	78,907,068	74,839,195
Real estate	73,845,438	67,750,239
Short term investments	24,314,068	29,510,641
Securities lending short term collateral investment pool	37,514,301	38,265,355
Total investments at fair value	907,770,351	816,602,762
CASH	53,189	22,229
RECEIVABLES		
Accounts receivable-member contributions	40,823	297,449
Accrued income on investments	733,881	717,403
Total receivables	774,704	1,014,852
OTHER ASSETS		
Prepaid expenses	14,902	51,800
Total assets	908,613,146	817,691,643
LIABILITIES		
Investments related payable	619,681	1,397,489
Accrued expenses	645,597	576,035
Accounts payable	734,483	509,153
Payable for securities lending collateral	38,457,569	38,870,542
Total liabilities	40,457,330	41,353,219
FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS	$ 868,155,816	$ 776,338,424

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

Statements of Changes in Fiduciary Net Position

For the Years Ended June 30, 2017 and 2016

	2017	2016
ADDITIONS		
Contributions (note 2)		
Employer	$ 20,268,189	$ 27,191,305
Employees	6,751,196	6,418,154
Total contributions	27,019,385	33,609,459
Investment income		
Interest	9,707,262	7,105,900
Dividends	630,640	2,144,205
Net appreciation/(depreciation) in fair value of investments	104,585,627	(10,920,581)
Other	248,142	34,373
Less - investment advisory and management fees	(3,675,541)	(3,344,453)
Net gain/(loss) from investing activities	111,496,130	(4,980,556)
Securities lending activity (note 3)		
Securities lending income	444,450	204,993
Borrower rebate	(175,094)	7,480
Securities lending expenses:		
Less - management fees	(103,430)	(83,443)
Net income from securities lending	165,926	129,030
Net investment gain/(loss)	111,662,056	(4,851,526)
Total additions	138,681,441	28,757,933
DEDUCTIONS		
Benefits and other payments		
Pension benefits	40,379,188	38,268,318
Disability benefits	86,296	94,423
Survivor and death benefits	4,162,791	3,894,944
Refunds of contributions	561,120	461,116
Administrative expenses (note 6)	1,674,654	1,696,334
Total deductions	46,864,049	44,415,135
NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION	91,817,392	(15,657,202)
FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS		
Beginning	776,338,424	791,995,626
Ending	$ 868,155,816	$ 776,338,424

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

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

The Maryland-National Capital Park and Planning Commission Employees' Retirement System (ERS), although a legally separate entity, is considered to be a blended component unit of the Maryland-National Capital Park and Planning Commission ("Commission"). Accordingly, the financial statements of the ERS are included as a pension trust fund in the Commission's basic financial statements.

The ERS is a retirement benefit trust organized by the Commission and is a qualified retirement plan pursuant to, and within the meaning of Section 401(a) of the Internal Revenue Code of 1986. The ERS is considered a single "pension plan" for purposes of financial reporting in accordance with accounting principles generally accepted in the United States of America, as no assets are legally restricted to the payment of certain benefits.

Basis of Accounting

The financial statements of the ERS are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred; revenues are recorded in the accounting period in which they are earned and become measurable; and investment purchases and sales are recorded as of their trade date. Employee contributions for active members are established by the plan sponsor; set forth in the ERS' plan document; and, recognized when due. Employer contributions are recognized when due pursuant to formal commitments as recommended by the actuary and approved by the plan sponsor. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Use of Estimates

Management of the ERS has made certain estimates and assumptions relating to the reporting of assets and liabilities, and the disclosure of contingent assets and liabilities, to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates.

Fair Value

The ERS' investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale. The investments in short-term investment funds are reported at cost plus allocated interest, which approximates fair value. The securities lending collateral pool, which is a fund operated by the securities lending agent, also is accounted for at fair value, which represents the net position of the collateral received. U.S. government obligations, corporate and foreign bonds and notes, and common and preferred stocks, are generally valued based on published market prices and quotations from national security exchanges and securities pricing services.

For alternative investments, which include venture capital, private equity and real estate investments where no readily ascertainable fair value exists, management, in consultation with the general partner and investment advisors, has determined the fair values for the individual investments based upon the partnership's most recent available financial information. Securities that are not traded on a national security exchange are valued by the asset manager or third parties based on similar sales.

The pricing services used for fixed income securities uses the Interactive Data Corporation by Institutional Bid Evaluation daily; international fixed income securities uses the PC Bond Group or IBOXX by Institutional Mid Evaluation daily; corporate stock uses the Interactive Data Corporation as of the official close of NASDAQ daily; international corporate stock uses Telekurs by the Last Trade daily; venture capital uses the Limited Partnership by the Institutional Bid Evaluation or Valuation as Priced for US and international; and real estate uses the Investment Managers by Evaluation as priced.

Investment expenses consist of investment managers' fees and those expenses directly related to the ERS' investment operations. GASB only requires disclosure of investment management fees which are "readily separable" from investment income. Due to the diversified investments, not all investment expenses are transparently disclosed in the statements. Partnership fees for private equity are drawn from committed capital; therefore, these fees are included within the net asset value and reported in the net appreciation/(depreciation) in fair value of investments.

2. Organization and Plan Description

The Board of Trustees ("Board") administers the ERS in accordance with the Trust Agreement between the Commission and the Board and delegates the day-to-day operations to the Administrator. The Board's main responsibility is to administer the ERS for the sole benefit of the members and to pay the promised benefits. The assets of the ERS are invested with the objective of ensuring that sufficient funds will be available for meeting benefit payments. The Board consists of 11 appointed and elected members as follows: two Commissioners (one each from Montgomery and Prince George's counties); three employee trustees (one each from Montgomery and Prince George's counties and one from the Bi-County office); two public members (one each from Montgomery and Prince George's counties); two Represented Trustees (one MCGEO Representative and one Fraternal Order of Police Representative); and, the Commission's Executive Director and Secretary-Treasurer, who serve as Ex-Officio.

The ERS consists of five contributory, single employer defined benefit pension plans sponsored by the Commission. Three of the plans, Plan A, B and D are closed to new entrants, and two, Plan C and E are open for park police and general employees, respectively. The following description of the ERS provides general information. Participants should refer to the Plan Document for more complete information.

General Employees. General employees may be members of Plans A, B, or E. Plan A, the original plan effective July 1, 1972, is applicable to all employees who enrolled on a voluntary basis as of December 31, 1978, when membership was closed. Plan B became mandatory for all new full-time career general employees effective January 1, 1979, and ERS staff hired on or after March 1, 1994. Effective January 1, 2009, membership was mandatory for part-time Merit System employees, Commissioners and Appointed Officials of the Commission. Plan B is integrated with Social Security and members vest after five years of credited service, with the exception of Commissioners and Appointed Officials who receive full and immediate vesting. Membership in Plan B closed effective December 31, 2012. Under the terms of Plans A and B, the normal retirement date for participating general employees is the first day of the month coinciding with or immediately following the date on which a participant attains age 60 with at least 5 years of credited service, or upon completion of 30 years of credited service regardless of age. Plan E became mandatory for all full-time and part-time general career employees, ERS Staff, Commissioners and Appointed Officials hired on or after January 1, 2013. Plan E is integrated with Social Security and members fully vest after ten years of credited service, with the exception of Commissioners and Appointed Officials who receive full and immediate vesting. Normal retirement in Plan E is age 62 with 10 years of credited service or 30 years of credited service, regardless of age.

Park Police. Park Police may be members of Plans C or D. On July 1, 1990, a collectively bargained Plan D replaced Plan C, which was closed and all members transferred to the new Park Police Plan D. Effective July 1, 1993, again as a result of collective bargaining, Plan D was closed to new employees, and Plan C was amended and reopened to provide benefits for Park Police hired after July 1, 1993. Pursuant to a 2002 collective bargaining agreement, Plan D members were given a one-time election to transfer to Plan C on or before October 25, 2002.

The normal retirement date for Plan D members is the first day of the month coinciding with or immediately following the date on which the participant attains age 55 and has completed 5 years of credited service, or has completed 22 years of credited service, regardless of age. The normal retirement date for Plan C members is the first day of the month coinciding with or immediately following the date on which the participant attains age 55 and has completed 5 years of credited service, or has completed 25 years of credited service, regardless of age.

Benefit Payments. Benefit payments for Plans A, B, C, and D are determined by application of a benefit formula considering the average of an employee's annual base pay during the three consecutive years that produce the highest total earnings prior to retirement, and the number of years of credited service, up to 40 years for

2. Organization and Plan Description (continued)

members of Plan A, 35 years for members of Plan B, 30 years for members of Plan C, and 32 years for members of Plan D. Benefit payments in Plan E are determined by application of a benefit formula considering the average of an employee's annual base pay during the five consecutive years that produce the highest total earnings prior to retirement and credited service up to 35 years. Under certain conditions, participants may elect to take early retirement at a reduced benefit level. Joint and survivor options are also available under all the plans.

Disability. Prior to August 1, 1982, disability benefits were available under the plans. Effective August 1, 1982, applications for disability retirement benefits were discontinued. All members who were receiving disability benefits, or who applied for disability benefits prior to August 1, 1982, continue to be covered under the terms of Plans A, B, and C. All applications for disability benefits subsequent to August 1, 1982, are covered under the Commission's Long-Term Disability Insurance Plan, which is not part of the ERS.

Cost-of-Living Adjustment (COLA). On July 1 each year, retirement income for participants retired at least six months is adjusted for changes in the cost-of-living as determined by the Consumer Price Index-All Items Annual Average, Urban Index for Major U. S. Cities (CPI). Plans A, B, C and D provide COLAS at 100% of the change in the CPI up to 3%, plus half of the change in the CPI in excess of 3%, up to a 5% maximum COLA for the portion of a member's benefit attributable to credited service earned prior to July 1, 2012, including earned and unused sick leave prior to January 1, 2013. The portion of a member's benefit attributable to credited service earned after July 1, 2012, including earned and unused sick leave on and after January 1, 2013, are subject to a maximum COLA of 2.5%. Plan E provides COLAs at 100% of the change in the CPI up to a maximum COLA of 2.5%.

Death Benefit. Effective July 9, 1986, the ERS was amended to provide a $10,000 post-retirement death benefit to beneficiaries of current and future retired members.

Sick Leave Integration. Effective September 1, 1988, the ERS was amended to permit members to use up to a maximum of 301 days of earned and unused sick leave to meet the length of service requirements for retirement qualification.

Plan Termination. Although the Commission has not expressed any intent to terminate the Plans, it may do so at any time. In the event that the Plans are terminated, beneficiaries receiving benefits at the date of termination shall be entitled to an allocation of the remaining assets based upon the relationship of each individual's actuarial reserve to total actuarial reserves, the balance to be allocated (pro rata) to the remaining members or beneficiaries.

Membership by Plan

As of July 1, 2016, membership in the ERS was as follows:

	Plan A (General)	Plan A (Police)	Plan B	Plan C	Plan D	Plan E	Total
Inactive Plan Members (or their beneficiaries) Currently Receiving Benefits	315	17	901	56	106	1	1,396
Inactive Plan Members Entitled but Not Yet Receiving Benefits	-	-	251	11	1	-	263
Active Plan Members	3	-	1,475	192	5	398	2,073
Total membership	**318**	**17**	**2,627**	**259**	**112**	**399**	**3,732**

2. Organization and Plan Description (continued)

Contributions

The Commission has agreed to make actuarially determined periodic contributions sufficient to provide the ERS with assets for payment of pension benefits. The rate for the Commission's employee group as a whole is expected to remain level as a percentage of annual covered payroll. The contribution rate is based on current service cost plus amortization of the unfunded actuarial accrued liability.

Employee contributions are established and amended by the Commission and set forth in the ERS' Plan Document. Employees participating in Plan A contribute 7% of their base pay. Park Police participating in Plans C and D contribute 9% and 8%, respectively, of their base pay. Employees participating in Plan B and E contribute 4% of their base pay up to the Social Security covered wage base and 7% and 8%, respectively, thereafter.

The total contributions to the ERS for 2017 and 2016 were $27,019,385 and $33,609,459, respectively. In 2017, the Commission contributed $20,268,189 (14.3% of covered payroll of $141,670,765). Employees contributed $6,751,196 (4.8% of covered payroll). In 2016, the Commission contributed $27,191,305 (20.1% of covered payroll of $135,041,803). Employees contributed $6,418,154 (4.8% of covered payroll). The Commission's contributions decreased 25.5% from 2016 to 2017. The decrease can be attributed primarily to actuarial asset value gains and assumption changes related to the cost-of-living adjustment.

3. Investments

The Board is authorized by the Trust Agreement to invest and reinvest the Trust Fund, as may be determined by the investment consultant selected by the Commission. The Board is authorized to formulate investment policies, develop investment manager guidelines and objectives, and approve the retention of qualified advisors and investment managers.

Trust Fund assets are invested to obtain an appropriate long-term total return consistent with prudent risk taking. The Trust Fund shall be diversified across investment classes and among investment managers in order to achieve return as compensation for investment risk. The Board established target allocations for each asset class, as well as ranges of expected exposure as follows:

Asset Class	Target Exposure	Expected Range
U.S. Equities	19.00%	14%-24%
International Equities	19.00%	14%-24%
Low Volatility Equities	8.00%	4%-12%
Private Equities	5.00%	0%-8%
Total Equities	**51.00%**	**46%-56%**
Core Fixed Income	10.00%	7%-13%
High Yield Fixed Income	7.50%	5%-10%
Global Opportunistic Fixed Income	7.50%	5%-10%
Bank Loans	4.00%	2%-6%
Total Fixed Income	**29.00%**	**24%-34%**
Public Real Assets	5.00%	0%-15%
Private Real Assets	15.00%	5%-20%
Total Real Assets	**20.00%**	**10%-25%**

3. Investments (continued)

The Board approved revisions to the Statement of Investment Policy ("Policy") on April 4, 2017. The Policy was amended to add an 8% allocation to global low volatility equities; reduce U.S. and international equities from 23% to 19%; and add a global infrastructure allocation to public real assets.

Each investment manager has a set of guidelines, which contain investment objectives, and risk control provisions, which are appropriate for each manager's mission. Investment managers have discretion within the constraints of these guidelines and are subject to regular review by the Board. Investment manager assignments may be implemented with pooled vehicles. In such circumstances, the ERS may not have control with respect to the investment guidelines and objectives as they are written broadly for multiple investors. The Trust Fund has guidelines, which apply broadly to each asset class as follows:

Public Equity Guidelines (U.S. and International)

- Under normal conditions, no more than 5% of the value of the U.S. and International composites should be held in cash equivalents at any time.
- The U.S. and International equity composites are expected to remain broadly diversified by economic sector, industry and individual securities at all times.
- The composites should match the asset class benchmark in terms of capitalization and growth characteristics, and be similar to the asset class benchmark in terms of risk.

Private Equity Guidelines

- The portfolio is expected to be diversified by geographic location with the following weightings: North America (approximately 50%), Europe (approximately 30%), and the Asia-Pacific region and other emerging markets (approximately 20%).
- The composite is expected to be diversified by the following investment types: buyouts, venture capital, growth equity, distressed, and special situations (private equity-like investments, such as mezzanine debt, asset-intensive assets or royalty streams and other opportunistic funds).
- Secondary fund investments and direct co-investments are permitted on an opportunistic basis with a combined maximum limit of 20%.
- Investments should be diversified by vintage year.
- No single partnership investment is expected to be more than 20% of the private equity composite. This guideline shall not apply during initial funding.

Fixed Income Guidelines

- The fixed income portfolio is structured to include exposures to the following sub-classes: core fixed income, high yield fixed income, global opportunistic fixed income and bank loans.
- The fixed income composite may have up to 20% of its value in cash equivalents at any time.
- Except for securities issued by the US Government and/or its agencies, any single issuer is not expected to exceed 5% of the market value of the fixed income composite at any time.
- Duration of each fixed income sub-class should typically remain with +/- 1.5 years of the sub-class benchmark.
- Credit quality for each sub-class is expected to be similar to that of the designated sub-class benchmark, as measured by a recognized rating agency (Standard & Poor's or Moody's).
- Build America Bonds issued by Montgomery County and Prince George's County are prohibited.
- Flexible global opportunistic fixed income guidelines allow managers to invest globally, seeking to add value through duration management, yield curve positioning, sector/issue selection, country market selection and currency.

Real Assets Guidelines

- The real assets portfolio includes private real assets and public real assets.
- Any un-invested portion of the private real assets allocation should remain invested in public real assets.

3. Investments (continued)

Private Real Assets Guidelines

- Investments will be structured privately in the form of commingled or pooled vehicles, such as limited partnerships and diversified among the following investment types: real estate, energy, mining, timber, agriculture, and infrastructure.
- The private real assets portfolio is expected to be diversified by geographic location with a minimum of 50% invested in the United States and no more than 30% invested in emerging markets.
- Investments should also be diversified by vintage year. No single partnership commitment is expected to be more than 20% of the real assets portfolio or more than 20% of the portfolio of a fund-of-funds manager.

Public Real Assets Guidelines

- Investments structured in public real assets include natural resource stocks, real estate securities (including REITs), commodities, inflation indexed bonds, and global infrastructure that are broadly diversified, such that each sub-asset class may contribute to the portfolio's real return and risk profile.

Fair Value Measurements

The fair value of all invested assets, based on the fair value hierarchy, and categorized based upon the lowest level of input that was significant to the fair value measurement, were as follows:

Investments and Derivative Instruments Measured at Fair Value
($ in thousands)

		Fair Value Measurements Using			
	Fair Value 6/30/2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Undetermined
Investments by Fair Value Level					
Cash and invested cash	$ 2,437	$ 2,437	$ -	$ -	$ -
Short-term investment funds	2,482	2,482	-	-	-
Debt securities					
Asset-backed securities	5,073	-	5,073	-	-
Commercial mortgage-backed	2,393	-	2,393	-	-
Corporate bonds	24,509	-	24,509	-	-
Government agencies	2,919	-	2,919	-	-
Government bonds	17,804	-	17,804	-	-
Government mortgage-backed securities	15,454	-	15,454	-	-
Other fixed income-funds	3,790	-	3,790	-	-
Index linked government bonds	2,315	-	2,315	-	-
Provincial Bonds	481	-	481	-	-
Total debt securities	74,738	-	74,738	-	-
Equity investments					
Common stock	95,575	95,572	3	-	-
Funds-common stock	17,439	-	17,439	-	-
Equity exchange traded fund	-	-	-	-	-
Total equity investments	113,014	95,572	17,442	-	-
Securities lending short term collateral investment pool	37,514	37,514	-	-	-
Total investments by fair value level	**$ 230,185**	**$ 138,005**	**$ 92,180**	**$ -**	**$ -**

3. Investments (continued)

Investments Measured at Net Asset Value (NAV) ($ in thousands)

	2017 Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Short-term investment funds	$ 19,395	None	Monthly	1-6 days
Funds-corporate bonds	33,354	None	Monthly	7-15 days
Other fixed income-funds	103,821	None	Monthly	7-15 days
Funds-common stock	347,568	None	Monthly	7-15 days
Venture capital and partnerships	99,602	None	Monthly, Quarterly	Frequent Changes
Real estate	73,845	None	Monthly	1-15 days
Total investments measured at NAV	677,585			
Total investments measured at fair value	$ 907,770			

Investments and Derivative Instruments Measured at Fair Value
($ in thousands)

		Fair Value Measurements Using			
	Fair Value 6/30/2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Undetermined
Investments by Fair Value Level					
Cash and invested cash	$ 2,092	$ 2,092	$ -	$ -	$ -
Short-term investment funds	2,384	2,384	-	-	-
Debt securities					
Asset-backed securities	3,980	-	3,980	-	-
Commercial mortgage-backed	3,379	-	3,379	-	-
Corporate bonds	26,825	-	26,825	-	-
Government agencies	6,567	-	6,567	-	-
Government bonds	12,633	-	12,633	-	-
Government mortgage-backed securities	15,175	-	15,175	-	-
Other fixed income-funds	2,733	-	2,733	-	-
Index linked government bonds	2,642	-	2,642	-	-
Provincial bonds	386	-	386	-	-
Total debt securities	74,320	-	74,320	-	-
Equity investments					
Common stock	91,934	91,904	30	-	-
Funds-common stock	16,515	-	16,515	-	-
Equity exchange traded fund	3	3	-	-	-
Total equity investments	108,452	91,907	16,545	-	-
Securities lending short term collateral investment pool	38,265	38,265	-	-	-
Total investments by fair value level	**$ 225,513**	**$ 134,648**	**$ 90,865**	**$ -**	**$ -**

3. Investments (continued)

Investments Measured at Net Asset Value (NAV) ($ in thousands)

	2016 Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Short-term investment funds	$ 25,035	None	Monthly	1-6 days
Funds-corporate bonds	30,579	None	Monthly	7-15 days
Other fixed income-funds	104,376	None	Monthly	7-15 days
Funds-common stock	290,107	None	Monthly	7-15 days
Venture capital and partnerships	73,243	None	Monthly, Quarterly	Frequent Changes
Real estate	67,750	None	Monthly	1-15 days
Total investments measured at NAV	591,090			
Total investments measured at fair value	$ 816,603			

Level 1 - Unadjusted quoted prices for identical instruments in active markets for identical assets or liabilities. Fair values of stocks are determined by utilizing quoted market prices.

Level 2 - Reflects measurements based on other observable inputs. Quoted prices for similar instruments in active markets; identical or similar instruments in markets that are not active; and models in which all significant inputs are observable.

Level 3 - Valuations are based on methods in which significant inputs are unobservable.

The carrying value of cash equivalents and short-term investments approximates fair value due to the short maturities of these investments.

Money-Weighted Rate of Return

For the years ended June 30, 2017 and 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 14.62% and .21%, respectively for one year. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Investment Risks

The ERS has investments that are subject to various risks. Among these risks are custodial credit risk, interest rate risk, credit risk, and foreign currency risk. Each one of these risks is discussed in more detail below.

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the ERS will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either a) the counterparty or b) the counterparty's trust department or agent but not in the government's name. The ERS requires that all investments be clearly marked as to ownership and to the extent possible, shall be registered in the name of the ERS.

Of the ERS' $907.8 million in investments as of June 30, 2017, $37.5 million were cash collateral reinvestment securities acquired by the custodian, whom is also the lending agent/counterparty. This is consistent with the ERS' securities lending agreement in place with the custodian.

For short term investments, custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned to it.

3. Investments (continued)

The amount of the ERS' total cash and short-term investments as of June 30, 2017 and 2016 was $24,367,257 and $29,532,870, respectively. Cash deposits that were insured and collateralized in the bank account totaled $53,189 and $22,229 as of June 30, 2017 and 2016, respectively. As of June 30, 2017, and 2016, the ERS held $24,314,068 and $29,510,641, respectively, of short-term investments in its custodial investment accounts.

As of June 30, 2017, the ERS held $86,133 of short-term investments that were exposed to custodial credit risk.

Each investment manager has duration targets and bands that control interest rate risk; however, the ERS does not have a policy relating to interest rate risk.

As of June 30, 2017, the ERS had the following fixed income investments and short-term investments with the following maturities:

Investment Type	Fair Value	Weighted Average Maturity-Years
Asset-backed securities	$ 5,072,642	5.068466
Commercial mortgage-backed	2,392,629	26.739867
Corporate bonds	24,508,934	8.761937
Government agencies	2,919,452	6.854436
Government bonds	17,804,090	9.976094
Government mortgage-backed securities	15,453,446	24.568417
Index-linked government bonds	2,315,317	11.033408
Provincial bonds	480,857	18.599925
Fixed income mutual funds	107,610,837	N/A
Short-term investment funds	21,876,871	N/A
TOTAL	**$ 200,435,075**	**12.445681**

As of June 30, 2016, the ERS had the following fixed income investments and short-term investments with the following maturities:

Investment Type	Fair Value	Weighted Average Maturity-Years
Asset-backed securities	$ 3,979,745	5.45209
Commercial mortgage-backed	3,379,044	26.830198
Corporate bonds	57,404,283	9.422818
Government agencies	6,566,595	8.620073
Government bonds	12,632,531	9.174464
Government mortgage-backed securities	15,174,589	22.18421
Index-linked government bonds	2,642,178	11.515365
Provincial bonds	386,368	23.939
Fixed income mutual funds	107,109,051	N/A
Short-term investment funds	27,418,782	N/A
TOTAL	**$ 236,693,166**	**12.464861**

3. Investments (continued)

Asset-backed securities (ABS) are bonds or notes backed by loan paper or accounts receivable originated by banks, credit card companies, or other providers of credit. The originator of the loan or accounts receivable paper sells it to a specially created trust, which repackages it as securities. Brokerage firms underwrite the securities and reoffer them to the public. The ERS held $5,072,642 and $3,979,745 in ABS as of June 30, 2017 and 2016, respectively.

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by a nationally recognized statistical rating agency such as Standard & Poor's Services. Individual manager guidelines require investment managers to follow certain controls, documentation and risk management procedures. Managers are required to measure and monitor exposure to counterparty credit risk; however, there is no formal policy relating to a specific investment-related risk. All counterparties must have commercial paper credit ratings of at least A1 or equivalent rating.

Individual investment manager guidelines include limitations on the percentage of securities below investment grade and various types of securities including derivatives. A Derivatives Policy Statement identifies and allows common derivative investments and strategies which are consistent with the Statement of Investment Policy.

Credit Quality Ratings as of June 30, 2017:

Credit Quality Distribution for Services		% of Total Portfolio
Agency	AGY	3.80%
Government Agencies	AA	0.30%
Government Agencies	BBB	0.02%
Government Bonds	A	0.01%
Government Bonds	NR	0.03%
Government Mortgage-Backed Securities	NR	0.08%
Asset-Backed Securities	AAA	0.28%
Asset-Backed Securities	AA	0.06%
Asset-Backed Securities	BBB	0.04%
Asset-Backed Securities	NR	0.18%
Commercial Mortgage-Backed	AAA	0.06%
Commercial Mortgage-Backed	NR	0.21%
Corporate Bonds	AAA	0.06%
Corporate Bonds	AA	0.27%
Corporate Bonds	A	1.04%
Corporate Bonds	BBB	1.34%
Provincial Bonds	AA	0.04%
Other Fixed Income	NR	0.42%
Funds - Corporate Bond	NR	3.67%
Funds - Other Fixed Income	NR	11.44%
Funds - Short Term Investment	NR	2.41%

NR=Not Rated

3. Investments (continued)

Credit Quality Ratings as of June 30, 2016:

Credit Quality Distribution for Services		% of Total Portfolio
Agency	AGY	3.55%
Government Agencies	AA	0.80%
Government Bonds	A	0.02%
Government Bonds	BBB	0.03%
Government Bonds	NR	0.09%
Government Mortgage- Backed Securities	NR	0.05%
Asset-Backed Securities	AAA	0.19%
Asset-Backed Securities	AA	0.04%
Asset-Backed Securities	A	0.03%
Asset-Backed Securities	BBB	0.04%
Asset-Backed Securities	NR	0.19%
Commercial Mortgage-Backed	AAA	0.12%
Commercial Mortgage-Backed	A	0.04%
Commercial Mortgage-Backed	NR	0.26%
Corporate Bonds	AAA	0.05%
Corporate Bonds	AA	0.40%
Corporate Bonds	A	1.34%
Corporate Bonds	BBB	1.36%
Corporate Bonds	BB	0.02%
Corporate Bonds	NR	0.12%
Provincial Bonds	AA	0.05%
Other Fixed Income	NR	0.34%
Funds - Corporate Bond	NR	3.75%
Funds - Other Fixed Income	NR	12.78%
Funds - Short Term Investment	NR	3.36%

NR=Not Rated

3. Investments (continued)

The ERS does not have a policy for foreign currency risk. Foreign currency is intentionally unhedged.

The ERS' exposure to foreign currency risk as of June 30, 2017 was as follows:

Investment Type	Currency	Fair Value
Common stock	British pound sterling	$ 10,161,857
Common stock	Canadian dollar	1,298,811
Common stock	Czech koruna	695,296
Common stock	Euro	17,094,017
Common stock	Hong Kong dollar	2,223,578
Common stock	Indonesian rupiah	753,561
Common stock	Japanese yen	5,508,997
Common stock	Mexican peso	1,450,364
Common stock	New Taiwan dollar	5,217,836
Common stock	Norwegian krone	3,256,884
Common stock	Singapore dollar	1,340,640
Common stock	South Korean won	2,701,503
Common stock	Swedish krona	1,223,473
Common stock	Swiss franc	1,848,489
Common stock	Turkish lira	1,058,916
Cash	Mexican peso	50,858
Cash	Euro	22,657
Cash	Norwegian krone	12,619
Total		**$ 55,920,356**

The ERS' exposure to foreign currency risk as of June 30, 2016 was as follows:

Investment Type	Currency	Fair Value
Common stock	Brazilian real	$ 949,161
Common stock	British pound sterling	8,126,444
Common stock	Canadian dollar	1,198,788
Common stock	Czech koruna	793,990
Common stock	Euro	13,888,062
Common stock	Hong Kong dollar	935,740
Common stock	Indonesian rupiah	784,125
Common stock	Japanese yen	5,155,895
Common stock	Mexican peso	1,285,859
Common stock	New Taiwan dollar	4,063,726
Common stock	Norwegian krone	2,733,978
Common stock	Singapore dollar	1,264,641
Common stock	South Korean won	2,509,983
Common stock	Swedish krona	1,560,878
Common stock	Swiss franc	2,331,767
Common stock	Turkish lira	1,330,025
Cash	Mexican peso	5,738
Total		**$ 48,918,800**

Note: These schedules do not agree with the total international obligations and international equities as listed on the Statements of Fiduciary Net Position due to international obligations valued in U.S. dollars but classified as international.

3. Investments (continued)

Cash Received as Securities Lending Collateral

The ERS accounts for securities lending transactions in accordance with GASB No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, which established standards of accounting and financial reporting for securities lending transactions.

The Board authorized the lending of fixed income securities, which activity is managed by the custodian bank. The Board authorized a securities lending loan cap of 30%, effective October 6, 2010, with an increase to 50%, effective February 1, 2011. There were no violations of legal or contractual provisions, and no borrower or lending agent default losses known to the securities lending agent as of June 30, 2017 and 2016.

Securities are loaned against collateral that may include cash, U.S. government securities, and irrevocable letters of credit. U.S. government securities are loaned against collateral valued at 102% of the fair value of the securities plus any accrued interest. Non-U.S. government securities are loaned against collateral valued at 105% of the fair value of the securities plus any accrued interest. Non-cash collateral cannot be pledged or sold unless the borrower defaults. Consequently, the non-cash collateral has not been reported as an asset or liability on the Statements of Fiduciary Net Position. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of overall loans were approximately 145 days in 2017 and 161 days in 2016.

Cash open collateral is invested in a short-term investment pool, the Northern Trust Collective Securities Lending Core Short Term Investment Fund, which had an interest sensitivity of 33 days as of June 30, 2017, and 30 days as of June 30, 2016. Cash collateral may also be invested separately in "term loans", in which case the investments match the loan term. These loans can be terminated on demand by either lender or borrower. There are no dividends or coupon payments owing on the securities lent. Securities lending earnings are credited to the ERS' accounts on approximately the fifteenth day of the following month.

The custodial bank's responsibilities include performing appropriate borrower and collateral investment credit analysis, demanding adequate types and levels of collateral, and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending. Loss indemnification is provided when securities are not returned due to the insolvency of a borrower and the trustee bank fails to fulfill its contractual responsibilities relating to the lending of those securities to that borrower.

The following table presents the fair values of the underlying securities, and the value of the collateral pledged as of June 30, 2017:

Securities Lent	Fair Value	Cash Collateral Received*
Fixed income securities	$ 16,878,951	$ 17,278,541
Domestic equities	18,559,037	18,988,537
Global equities	2,076,313	2,190,491
Total	$ 37,514,301	$ 38,457,569

3. Investments (continued)

The following table presents the fair values of the underlying securities, and the value of the collateral pledged as of June 30, 2016:

Securities Lent	Fair Value	Cash Collateral Received*
Fixed income securities	$ 11,940,812	$ 12,152,930
Domestic equities	26,080,240	26,457,216
Global equities	244,303	260,396
Total	$ 38,265,355	$ 38,870,542

*The securities collateral value is based on the ERS' pro rata share of the value of the securities collateral maintained at The Northern Trust Company on the program wide collateralization levels.

4. Derivatives Policy Statement

A Derivatives Policy Statement identifies and allows common derivative investments and strategies, which are consistent with the Statement of Investment Policy. The guidelines identify transaction-level and portfolio-level risk control procedures and documentation requirements. Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have commercial paper credit ratings of at least A1 or equivalent rating. The duration and other risk exposure limits specified in the managers' guidelines are expected to be satisfied on an ongoing basis. Investment managers are permitted to use such derivatives for hedging purposes, including cross-hedging of currency exposures, to replicate the risk/return profile of an asset or asset class, and to tactically change country exposure. Derivative securities such as "plain vanilla" collateralized mortgage obligations (CMOs) and structured notes are allowed. CMOs which are not "plain vanilla" are restricted to 5% of a manager's portfolio. Any use of derivatives not listed above is prohibited without written approval of the Board**.** As of June 30, 2017 and June 30, 2016, the ERS did not hold any derivatives. Gains and losses are determined based on quoted fair values and recorded in the Statements of Changes in Fiduciary Net Position. The objective of Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* is to enhance the usefulness and comparability of derivative instrument information reported by state and local governments.

The following uses of derivatives are prohibited:

- **Leverage**. Derivatives shall not be used to magnify exposure to an asset beyond that which would be allowed by the guidelines.
- **Unrelated Speculation**. Derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial variable, unless such exposures would be allowed by the manager's guidelines if created with non-derivative securities.

Typically, investment advisors enter into foreign exchange contracts to make payment for international investments. Foreign exchange contracts are agreements to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. The investment advisor uses these contracts primarily for its international investments to settle pending trades. To reduce the risk of counterparty nonperformance, the investment advisors generally enter into these contracts with institutions meeting high standards of credit worthiness. The realized and unrealized gain/loss on contracts are included in the ERS' net position and represents the fair value of the contracts on June 30, 2017 and June 30, 2016, the ERS' contracts to purchase and sell by foreign currencies as follows:

4. Derivatives Policy Statement (continued)

Foreign Exchange Contracts Settled as of June 30, 2017:

Currency	Purchases	Realized Gain/(Loss)	Sells	Realized Gain/(Loss)
Brazilian real	$ 78,809	$ -	$ (1,075,667)	$ 3
British pound sterling	5,576,132	(3,001)	(3,573,754)	(7,409)
Canadian dollar	103,874	(1,049)	(388,821)	1,553
Czech koruna	70,074	159	(269,035)	1,479
Euro	6,175,490	(3,826)	(8,384,737)	15,821
Hong Kong dollar	1,054,672	(77)	(880,674)	87
Indonesian rupiah	70,784	-	(242,825)	(248)
Japanese yen	969,873	(315)	(2,299,036)	2,365
Mexican peso	348,523	1,069	(471,257)	(6,710)
New Taiwan dollar	1,028,504	(7)	(1,844,311)	2,864
Norwegian krone	237,222	771	(1,118,971)	3,049
Singapore dollar	55,744	(424)	(376,346)	(102)
South Korean won	225,133	-	(874,965)	(547)
Swedish krona	139,903	212	(416,410)	3,666
Swiss franc	207,634	(264)	(700,711)	447
Turkish lira	125,191	403	(364,408)	(1,174)

Foreign Exchange Contracts Settled as of June 30, 2016:

Currency	Purchases	Realized Gain/(Loss)	Sells	Realized Gain/(Loss)
Brazilian real	$ -	$ -	$ (603,923)	$ 734
British pound sterling	-	-	(503,602)	(230)
Canadian dollar	1,790,467	973	-	-
Czech koruna	-	-	(36,120)	38
Euro	4,365,035	(2,258)	(1,455,973)	(3,470)
Hong Kong dollar	70,319	(14)	(820,412)	(67)
Indonesian rupiah	-	-	(14,592)	(2)
Japanese yen	-	-	(1,064,870)	(5,084)
Mexican peso	1,192,561	(1,904)	-	-
New Taiwan dollar	1,739,347	(717)	(231,001)	(193)
Norwegian krone	-	-	(905,800)	(4,079)
Singapore dollar	-	-	(47,115)	(22)
South Korean won	-	-	(783,054)	(143)
Swedish krona	-	-	(26,162)	(75)
Swiss franc	-	-	(68,093)	(349)
Turkish lira	159,969	1,821	(795,876)	(6,077)

Foreign Exchange Contracts Pending June 30, 2017:

Currency	Purchases	Unrealized Gain/(Loss)	Sells	Unrealized Gain/(Loss)
Japanese yen	$ 289,245	$ (222)	$ -	$ -
Mexican peso	-	-	(50,858)	(127)

Foreign Exchange Contracts Pending June 30, 2016:

Currency	Purchases	Unrealized Gain/(Loss)	Sells	Unrealized Gain/(Loss)
British pound sterling	$ 1,826,609	$ (5,758)	$ 1,826,176	$ 6,190

5. Net Pension Liability

The measurement date for implementation of GASB 67 is the ERS' fiscal year end, June 30, 2017. Plan assets (Fiduciary Net Position) are measured as of this date. The Total Pension Liability (TPL) as of this date is based on an actuarial valuation as of July 1, 2016, with adjustments made for the one-year difference. Adjustments include Service Cost, Interest on Total Pension Liability, and expected benefit payments during the year. Under GASB 67, the Net Pension Liability (NPL) is established as the difference between the Total Pension Liability and the Plan Fiduciary Net Position.

The components of the net pension liability of the System as of June 30, 2017 are as follows:

	Total for ERS
Total Pension Liability	$ 990,641,064
Plan Fiduciary Net Position	868,155,816
Net Pension Liability	$ 122,485,248
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	87.6%

Actuarial Assumptions

The total pension liability as of June 30, 2017 was determined by an actuarial valuation, using the following actuarial assumptions, applied to all periods included in the measurement:

COLA:	2.4% compounded annually for benefits accrued until July 1, 2012, 2.0% compounded annually thereafter
Inflation:	2.5%
Salary Increases:	2.5% + variable service based increases
Investment Return:	7.0%, net of investment expense and including inflation

Mortality rates were based on the RP-2000 Mortality Table with male rates set forward 1 year and female rates set forward 2 years with generational adjustments for mortality improvements based on Scale BB. An alternate table was used for the valuation of disabled members.

The actuarial assumptions used in the July 1, 2016 valuation were based on the results of an actuarial experience study in 2016 for the period July 1, 2010 through June 30, 2015. The Board agreed to annually review the investment return assumption.

Actuarial Cost Method

For financial reporting purposes, the July 1, 2016 actuarial valuation was performed using the Entry-Age Normal Actuarial Cost Method.

Assumed Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each asset class, based on inputs from a survey of investment professionals. These allocations are combined to produce a 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. This is then modified through a Monte-Carlo simulation process, by which returns are simulated over a 30-year period, and a risk adjustment is applied to the baseline expected return. This method accounts for not only expected returns, but adjusts for volatility of returns by asset class as well as correlations between the different classes.

5. Net Pension Liability (continued)

Best estimates of long-term real rates of return for each major asset class included in the pension plan's target asset allocation, and the final investment return assumption, are summarized in the following table:

Asset Class	Long-Term Expected Real Return - Portfolio
Domestic Equity, including Low Volatiliy	5.75%
International Equity	5.95%
Fixed Income & Bank Loans – U.S.	2.25%
Fixed Income – U.S. High Yield	4.50%
Fixedf Income - International	2.50%
Public Real Assets	2.55%
Private Equity	8.00%
Private Real Assets	4.45%
Cash	0.85%
Total Weighted Average Real Return	**4.67%**
Plus Inflation	2.50%
Total Return w/o Adjustment	7.17%
Risk Adjustment	(0.17)%
Total Expected Investment Return	7.00%

Discount Rate

The discount rate used to measure the total pension liability was 7.00%. 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 Commission 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 rates of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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

The following presents the net pension liability of the Commission, calculated using the discount rate of 7.00%, as well as what the Commission's net pension liability would be if it were calculated using a discount rate that is 1.00% lower and 1.00% higher than the current rate:

	1% Decrease	Current Discount Rate	1% Increase
	6.00%	7.00%	8.00%
Total Pension Liability	$ 1,118,765,984	$ 990,641,064	$ 876,479,824
Plan Net Position	868,155,816	868,155,816	868,155,816
Net Pension Liability	$ 250,610,168	$ 122,485,248	$ 8,324,008
Ratio of Plan Fiduciary Net Position to Total Pension liability	77.6%	87.6%	99.1%

6. Administrative Expenses

The Board employs internal staff to perform all accounting and administrative services. Administrative expenses are primarily comprised of salaries and related costs, professional fees, and office expenses. In accordance with a Trust Agreement and Memorandum of Understanding between the ERS and the Commission, the administrative expenses are determined by the ERS and paid from the ERS' Trust Fund within the limits of the budget approved by the Commission. The cost of such services for the years ended June 30, 2017 and 2016 was $1,674,654 and $1,696,334, respectively. The administrative expenses are financed by the employer contributions.

The liability for accrued leave as of June 30, 2017 and 2016, was $172,635 and $169,850 respectively, and has been included in accrued expenses in the accompanying financial statements.

Administrative expenses charged to the ERS by the Commission for 2017 were: computer services of $47,200, legal of $64,200, rent of $96,015, postage of $4,104, and copier leasing costs of $3,588. In 2016, the expenses were: computer services of $47,200, legal of $64,200, rent of $96,015, postage of $4,079, and copier leasing costs $4,375.

7. Federal Income Taxes

The ERS obtained its latest determination letter on November 20, 2014, in which the Internal Revenue Service (IRS) stated that the ERS, as amended, is in compliance with the applicable requirements of the Internal Revenue Code and the related trust is tax exempt.

In Announcement 2015-19, the IRS announced elimination of the staggered 5-year determination letter remedial amendment cycles for individually designed plans effective January 1, 2017.

8. Retirement Contributions for ERS Employees

Effective March 1, 1994, new employees of the ERS are required to participate in the ERS. Those employees remaining in the Board established 401(a) Defined Contribution Plan (the "401(a) Plan") receive an ERS contribution at the rate of 8% of base pay, and the employee contribution is at the rate of 6% of base pay.

Upon termination of employment, the amount accumulated in the 401(a) Plan shall be made available to the employee or designee, in accordance with the policies and procedures of the 401(a) Plan and in compliance with IRS regulations. The payroll for two employees covered by the 401(a) Plan for the year ended June 30, 2017 was $280,830 and the total payroll was $884,590. The ERS' contribution to the 401(a) Plan was $23,224 (2.6% of covered payroll) for the year ended June 30, 2017.

The payroll for two employees covered by the 401(a) Plan for the year ended June 30, 2016 was $270,486 and the total payroll was $844,619. The ERS' contribution to the 401(a) Plan was $21,694 (2.6% of covered payroll) for the year ended June 30, 2016.

In addition, employees are eligible to participate in a Section 457 Deferred Compensation Plan "(the "457 Plan")". Participation is voluntary, and the ERS does not contribute to the 457 Plan. Upon termination of employment, the amount accumulated in the 457 Plan shall be made available to the employee or designee, in accordance with the policies and procedures of the 457 Plan and in compliance with IRS regulations. ERS employees electing to participate, do so in the Commission's Section 457 deferred compensation plan. The contributions made to this plan are held in trust for the exclusive benefit of participants and their beneficiaries.

9. Other Post-Employment Benefits (OPEB)

Plan Description

In addition to the pension benefits provided for the ERS, the Commission provides post-retirement health care benefits under a cost sharing plan, in accordance with Commission approval, to all full-time and part-time career employees of the ERS who have been insured under any Commission-sponsored group medical plan during the three years immediately preceding the date of retirement or ability to prove similar coverage in another plan immediately prior to retirement. These benefits are administered through a separate trust of the Commission. Currently, 2 ERS retirees are participating in the Commission's medical plans. The ERS contributes 80% of the amount of medical, dental, prescription and vision insurance rates for retirees. For ERS active employees, the ERS contributes 82.5% of the amount of all medical and dental insurance rates, except for the lowest cost medical plan and the prescription plan. The cost share for the lowest cost medical plan and the prescription plan remains at 85% paid by the ERS. The ERS contributes 80% of the low vision option. Detailed information of the plan may be accessed via the Commission's CAFR.

Funding Policy

In fiscal year 2008, the Commission and plan sponsor of the ERS began phasing in over an eight-year period actuarially-based funding of Other Post-Employment Benefits (OPEB) in connection with the implementation of the accounting requirements of GASB Statement No. 45 *Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions*. The ERS pays the contributions based on requested actuarial funding amounts from the Commission. For the years ended June 30, 2017 and 2016, the ERS contributed $13,749 and $11,934, respectively. The OPEB is documented as a part of the Commission's CAFR. Questions concerning the OPEB information may be addressed to the Department of Finance, Office of the Secretary-Treasurer, The Maryland-National Capital Park and Planning Commission, 6611 Kenilworth Avenue, Suite 204, Riverdale, Maryland 20737 or via the Commission's website, http://www.mncppc.org (See Budget/CAFR).

10. Risk Management

The ERS is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; natural disasters; and identity theft. The ERS addresses these risks by purchasing workers' compensation (Maryland state mandatory limits) insurance, unemployment insurance, fiduciary liability, theft, business owners, and cyber liability insurance. The ERS did not pay any claims settlements in excess of insurance coverage in 2017 or 2016, nor was any insurance coverage reduced in 2017 or 2016. The ERS' employees have various options in their selection of health insurance benefits that are offered through the Commission's self-insurance program. The Commission self-insures the following medical plans: a health maintenance organization (HMO), an exclusive provider organization (EPO), a point of service (POS) as well as the prescription drug plan. All other group health insurance plans are fully insured including a dental plan and a vision plan with three coverage options.

11. Accounting Pronouncements

The GASB recently issued Statement No. 72 *Fair Value Measurement and Application*. The statement addresses accounting and financial reporting related to fair value measurements of assets and liabilities. Guidance is provided around valuation techniques to measure fair value and extensive disclosures will be required around the hierarchy of inputs to valuation techniques used to measure fair value as established by the statement. Since the statement generally requires investments to be measured at fair value, the impact on the ERS' financial statements is minimal. The investment-related notes to the financial statements have been changed to comply with this new standard.

Required Supplementary Information Under GASB 67[1]

Schedule of Changes in Net Pension Liability and Related Ratios
For Years Ended June 30

	Fiscal Year			
	2017	2016	2015	2014
Total Pension Liability				
Service Cost	$ 20,196,060	$ 18,125,110	$ 19,015,744	$ 16,635,683
Interest	66,311,451	61,280,153	64,188,829	60,003,715
Changes in benefit terms[2]	(6,233)	(4,863)	-	-
Difference between expected and actual experience	(9,213,536)	(20,701,234)	610,807	-
Changes in assumptions	34,368,804	(13,818,623)	9,147,692	-
Benefit payments, including refunds	(45,189,395)	(42,718,801)	(40,382,818)	(38,407,073)
Net Change in Total Pension Liability	66,467,151	2,161,742	52,580,254	38,232,325
Total Pension Liability - Beginning of Year	924,173,913	922,012,171	869,431,917	831,199,592
Total Pension Liability - End of Year	$ 990,641,064	$ 924,173,913	$ 922,012,171	$ 869,431,917
Plan Fiduciary Net Position				
Contributions – employer	$ 20,268,189	$ 27,191,305	$ 28,149,976	$ 28,750,323
Contributions – member	6,751,196	6,418,154	6,339,732	5,413,595
Net investment income	111,662,056	(4,851,526)	3,340,520	107,897,795
Benefit payments, including refunds	(45,189,395)	(42,718,801)	(40,382,818)	(38,407,073)
Administrative expenses	(1,674,654)	(1,696,334)	(1,587,371)	(1,487,210)
Net Change in Plan Fiduciary Net Position	91,817,392	(15,657,202)	(4,139,961)	102,167,430
Plan Fiduciary Net Position - Beginning of Year	776,338,424	791,995,626	796,135,587	693,968,157
Plan Fiduciary Net Position - End of Year	$ 868,155,816	$ 776,338,424	$ 791,995,626	$ 796,135,587
Net Pension Liability - Beginning of Year	147,835,489	130,016,545	73,296,330	137,231,435
Net Pension Liability - End of Year	122,485,248	147,835,489	130,016,545	73,296,330
Plan Fiduciary Net Position as a percentage of Total Pension Liability	87.6%	84.0%	85.9%	92.0%
Covered Employee Payroll	141,670,765	135,041,803	129,134,125	129,911,593
Net Pension Liability as a percentage of Covered Payroll	86.5%	109.5%	100.7%	56.0%

[1]Data for 2008-2013 not readily available.

[2]Effective March 1, 2015, Employee contributions for Plan C were changed from 8% of Base Pay to 8.5% of Base Pay and for Plan D were changed from 7% of Base Pay to 7.5% of Base Pay.

Required Supplementary Information

Schedule of Employer Contributions (unaudited)

Year	Actuarially Determined Employer Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered-Employee Payroll
2008	$ 10,561,434	$ 10,561,434	$ -	$ 109,579,279	9.60%
2009[1]	13,983,669	14,933,506	(949,837)	122,825,271	12.20%
2010	17,614,908	17,614,908	-	132,240,949	13.30%
2011[2]	35,206,700	25,633,000	9,573,700	142,590,713	18.00%
2012	32,182,287	32,182,287	-	140,407,414	22.90%
2013	23,806,058	23,806,058	-	132,490,722	18.00%
2014	28,750,323	28,750,323	-	129,911,593	22.10%
2015	28,149,976	28,149,976	-	129,134,125	21.80%
2016	27,191,305	27,191,305	-	135,041,803	20.10%
2017	20,268,189	20,268,189	-	141,670,765	14.30%

[1] An additional amount of $949,837 for a retirement incentive program offered by the Commission made the overall employer contribution for 2009 equal to $14,933,506.

[2] The Commission made a contribution of $25,633,000. As a result, the unfunded actuarial accrued liability increased by $9,573,700 and is amortized as part of future annual required contributions.

Note to Required Supplementary Information

The information presented in the required supplementary schedule was determined as part of the actuarial valuations at the date indicated. Additional information as of the most recent actuarial valuation follows:

Actuarial Valuation Date	Actuarial Cost Method	Amortization Method (A)	Asset Valuation Method (B)	Investment Rate of Return	Projected Salary Increases	Post-Retirement Benefit Increase (C)
7/1/2016	Entry age Normal	Open/Rolling	5 year smoothing	7.00%	2.50% plus variable merit	2.4% (prior to 7/1/12/2.0% after 7/1/12)

(A) The ERS amortizes the unfunded actuarial accrued liability over an open/rolling 15-year period.

(B) A 5-year asset smoothing method is used as the Actuarial Value of Assets to determine the funding requirements for the ERS.

(C) Cost-of-living adjustments (COLA) for the Plans are based on 100% of the change in the CPI up to 3%, plus half of the change in the CPI in excess of 3%, up to a 5% maximum COLA. Effective July 1, 2012, the portion of a person's retirement benefits attributable to credited service for periods on or after July 1, 2012 and earned unused sick leave beginning on or after January 1, 2013 are subject to a 2.5% maximum annual COLA.

A full assumption review was conducted in 2016; the July 1, 2016 actuarial valuation reflects all the changes in assumptions and methods.

Required Supplementary Information Under GASB 67

Schedule of Money-Weighted Rate of Returns[1]
For Years Ended June 30

	2017	2016	2015	2014	2013	2012	2011	2010
Annual money-weighted rate of return, net of investment expense	14.62%	0.21%	0.70%	15.30%	12.35%	3.01%	21.80%	14.48%

[1]Data for 2008-2009 not readily available.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The **Schedule of Changes in Net Pension Liability and Related Ratios** shows the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service and the liability of the Commission to plan members for benefits provided by the plan.

The **Schedule of Employer Contributions** highlights the historical actuarially determined contribution less the actual Commission contribution and reflects the actual contributions as a percentage of covered-employee payroll for the 10-year period ended June 30, 2017. With the exception of 2009 and 2011, the Commission has consistently contributed 100% of the actuarially determined employer contribution.

The **Schedule of Money-Weighted Rate of Returns** expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

SUPPLEMENTARY SCHEDULE

Schedule of Administrative Expenses
Fiscal Years Ended June 30

	Actual 2017	Actual 2016
Personnel services		
Salaries and wages	$ 884,590	$ 844,619
Social Security contributions	63,871	60,098
Retirement contributions	79,225	100,696
Insurance contributions	152,042	131,660
Other employee benefits	27,397	31,508
Unemployment compensation	378	420
Total personnel services	1,207,503	1,169,001
Professional and contractual services		
Actuarial	40,750	71,160
Auditing and tax services	21,295	31,523
Legal	123,250	173,192
Computer services	60,250	49,346
Payroll Services	3,669	3,424
Total professional and contractual services	249,214	328,645
Communication costs		
Advertising	760	239
Printing	-	465
Telephone	1,151	1,249
Postage	4,104	4,079
Travel, conference and meetings	25,139	10,924
Total communication costs	31,154	16,956
Other services and charges		
Office space rental	96,015	96,015
Equipment leasing	3,588	4,375
Furniture and equipment	3,131	7,509
Supplies	3,880	4,685
Maintenance	31,604	25,450
Bonding and insurance	43,945	37,590
Dues and subscriptions	1,965	2,520
Other services	2,655	3,588
Total other services and charges	186,783	181,732
Total	$ 1,674,654	$ 1,696,334

Supplementary Schedule

Schedule of Investment Expenses
Fiscal Years Ended June 30

	2017	2016
Investment managers		
Fixed income	$ 1,358,466	$ 1,300,865
U.S. equity	306,193	295,953
International equity	1,303,566	1,034,521
Private equity	4,454	47
Real assets	207,363	238,335
Total investment managers' fees	3,180,042	2,869,721
Other investment service fees		
Custodian fees	296,599	277,832
Investment consulting fees	198,900	196,900
Security lending fees:		
Borrower rebate	175,094	(7,480)
Management fees	103,430	83,443
Total other investment service fees	774,023	550,695
Total	$ 3,954,065	$ 3,420,416

Supplementary Schedule

Schedule of Payments to Consultants
Fiscal Years Ended June 30

Firm Name	Nature of Service	2017	2016
CliftonLarsonAllen, LLP	Auditor	$ -	$ 21,033
SB & Company, LLC	Auditor	21,295	10,490
Wilshire Associates, Inc.	Investment Consultant	198,900	196,900
Boomershine Consulting Group, LLC	Actuary	40,750	71,160
GROOM Law Group	Legal	59,050	108,992
The Maryland-National Capital Park and Planning Commission Legal Department	Legal	64,200	64,200
The Maryland-National Capital Park and Planning Commission Finance Department	Computer	47,200	47,200
Total		$ 431,395	$ 519,975

INVESTMENT
Section

INVESTMENT MANAGER DIRECTORY

U.S. EQUITY
Chicago Equity Partners
J.P. Morgan Investment Management
The Northern Trust Company
RhumbLine Advisors, L.P.

INTERNATIONAL EQUITY
Capital Group
Earnest Partners, L.L.C.

GLOBAL MINIMUM VOLATILITY
BlackRock Institutional Trust Company, N.A.

PRIVATE EQUITY
Wilshire Associates Inc.

FIXED INCOME

Core Fixed Income
C.S. McKee, L.P.
Eaton Vance Management

High Yield Fixed Income
Loomis Sayles & Company, L.P.
Neuberger Berman Fixed Income, LLC

Opportunistic Fixed Income
Golub Capital
Western Asset Management Company
Oaktree Capital Management, L.P.

Bank Loans
Voya Investment Management

PRIVATE REAL ASSETS
Aberdeen Capital Management, LLC
Grosvenor Capital Management
Principal Global Investors, LLC

PUBLIC REAL ASSETS
State Street Global Advisors

To: Andrea Rose, Administrator
The Maryland-National Capital Park and Planning Commission
Employees' Retirement System Board of Trustees

From: Bradley A. Baker, Vice President
Wilshire Associates ("Wilshire")

Date: August 17, 2017

Subject: Annual Investment Consultant's Review

Overview

The overall goal of Maryland-National Capital Park and Planning Commission Employees' Retirement System ("ERS") is to provide benefits, as anticipated under the ERS governing plan document, to its participants and their beneficiaries through a carefully planned and executed investment program. Through this program, the ERS seeks to produce a return on investment commensurate with levels of liquidity and investment risk that are prudent and reasonable given the financial status of the ERS and the prevailing capital market conditions. While the ERS recognizes the importance of the preservation of capital, it also recognizes the critical importance of a reasonable investment return in meeting the long-term financial requirements of the ERS. It adheres to the theory of capital market pricing that maintains that varying degrees of investment risk should be rewarded with varying levels of compensating return. Consequently, prudent risk-taking is both necessary and justifiable.

The asset allocation policy is based on data and calculations resulting from the Actuarial Valuation conducted by the actuary, Boomershine Consulting Group, and the subsequent Asset/Liability study conducted by the investment consultant, Wilshire Associates, presented March 6, 2012.

The asset allocation policy was amended in first quarter 2017 following the approval of the Low Volatility Equity allocation and offsetting reduction to U.S. Equity and International Equity allocations. This asset allocation policy has been implemented as of second quarter 2017, with the exception of the private investments which will fund gradually over time.

Asset Class	Target %	Range %
U.S. Equities	19.0	14-24
International Equities	19.0	14-24
Low Volatility Equities	8.0	4-12
Private Equities	5.0	0-8
Total Equities	*51.0*	*46-56*
U.S. Core Fixed Income	10.0	7-13
High Yield Fixed Income	7.5	5-10
Bank Loans	4.0	2-6
Global Opportunistic Fixed Income	7.5	5-10
Total Fixed Income	*29.0*	*24-34*
Public Real Assets	5.0	0-15
Private Real Assets	15.0	5-20
Total Real Assets	*20.0*	*10-25*

Outline of Investment Policies

The policies and procedures of the investment program guide its implementation and outline the specific responsibilities of the ERS.

Therefore, it is the policy of the ERS to:

1. Base the investment of the assets of the ERS on a financial plan that will consider:

   a. The financial condition of the ERS
   b. The expected long-term capital market outlook
   c. The ERS' risk tolerance
   d. Future changes of active and retired participants
   e. Projected inflation and the rate of salary increases
   f. Cash flow requirements
   g. Targeted funding level as a percentage of the actuarial funding target.

   In developing its financial plan, the Board has relied on the ERS' investment consultant, as one of the ERS' expert fiduciaries, to advise the Board as to the long-term capital market outlook and the Board's options available to meet its investment objectives in light of that investment outlook. The investment consultant has advised the Board as to the potential impact on the funding level of alternative investment policies in terms of risk and return based on various levels of asset diversification and the current and projected liability structure of the ERS. Based on this advice, the Board has adopted an overall investment performance goal commensurate with the level of risk necessary to reach those goals.

2. Based on the financial plan and the advice of the investment consultant, the Board shall determine the specific allocation of the investments among the various asset classes considered prudent given the ERS' liability structure. The long-term asset allocation shall be expressed in terms of a target and ranges for each asset class to provide sufficient flexibility to take advantage of short-term market opportunities as they may occur. Asset allocation shall be sufficiently diversified to maintain a prudent level of risk, as determined by the Board, based on the investment consultant's expert opinion and projections that utilize reasonable, generally accepted capital market assumptions to ensure the current asset mix has a high probability of achieving the long-term goals of the retirement program.

3. In accordance with the asset allocation guidelines so adopted, the ERS' investment consultant shall advise and recommend to the Board external investment managers with demonstrated experience and expertise whose investment styles collectively will implement the planned asset allocation. Based on these recommendations, the Board will select the investment advisors that it deems most capable of carrying out the ERS' investment objectives. Upon the advice of the investment consultant, the Board will set guidelines for these managers and regularly review their investment performance against stated objectives.

4. It is the responsibility of the Board to administer the investments of the ERS at the lowest reasonable cost, taking into account the need to ensure quality. These costs include, but are not limited to, management and custodial fees, consulting fees, transaction costs, and other administrative costs chargeable to the ERS.

The Board of the ERS has general supervision of the investment and reinvestment of the funds of the ERS (the "Funds"). The specific investment-related duties of the Board and, by delegation, of its investment consultant and advisors, include but are not limited to:

1. Selection and appointment of investment consultant and management professionals to assist the Board to carry out its duties;

2. Establishment and implementation of investment policy with the advice and assistance of the Board's investment consultant and investment advisors;

3. Review and general supervision of the activities of the Board's investment consultant and investment advisors with regard to the ERS' assets.

Investment Results

The investment results provided are calculated by the ERS' investment consultant, Wilshire Associates. The returns are accurate and representative of the actual performance of the Plan. The following describes the performance measurement process that is used to arrive at the investment results:

Performance measurement reporting begins with the monthly collection of data from three sources:

- Banks – Wilshire obtains transaction and asset information from trustee banks electronically. These transactions and security holdings are then loaded into client files on Wilshire's performance measurement system. Wilshire also tracks the availability and timeliness of statements sent by trustee banks. In addition, Wilshire has a dedicated team of data analysts responsible for maintaining statement receipts and portfolio data feeds, and loading asset portfolios into the performance system.

- Investment Managers – Wilshire receives investment manager returns and detailed account statement information to use in the return reconciliation process.

- External Data Vendors and Wilshire Data Sources – Wilshire's centralized security data division collects extensive security level data from external data vendors, while the index department collect returns and portfolios on over 800 benchmarks. Wilshire's manager research department collects manager returns and portfolios for the construction of universes. This data is also loaded into the performance system.

Monthly rates of return are calculated by Wilshire software using a time-weighted rate of return methodology based upon market values. Wilshire's calculation procedure is consistent with the recommendations of both the CFA Institute and the Bank Administrative Institute.

Tolerance ranges have been established for each asset class for return variance with the manager. When returns fall outside this tolerance range, Wilshire will review individual holdings, prices, accruals, cash flows and fees to determine where the discrepancies lie. If an error has been made, Wilshire will work with appropriate parties to correct the error. If the difference is due to structural differences in the way the sources perform their calculations, Wilshire will include an explanation in the reconciliation. Reconciliation work is documented and can be provided to the client for its records.

Market Overview

Major Asset Class Returns for Periods Ending June 30, 2017

	QTR	YTD	1 Year	3 Year	5 Year	10 Year
Equity						
Wilshire 5000 Index	3.0	8.7	18.5	9.3	14.6	7.3
Standard & Poor's 500 Index	3.1	9.3	17.9	9.6	14.6	7.2
MSCI EAFE (N) Index	6.1	13.8	20.3	1.2	8.7	1.0
MSCI ACWI ex-U.S. (N) Index	5.8	14.1	20.5	0.8	7.2	1.1
MSCI Emerging Market (N) Index	5.8	18.1	22.8	1.0	4.1	2.0
Fixed Income						
Bloomberg Barclays Aggregate Bond Index	1.5	2.3	-0.3	2.5	2.2	4.5
Merrill Lynch High Yield BB/B Index	2.2	4.6	11.2	4.5	6.7	7.1
S&P LSTA Leverage Loan Index	0.8	1.9	7.4	3.4	4.6	4.5
Bloomberg Barclays Global Aggregate Index	2.6	4.4	-2.2	-0.4	0.8	3.7
Treasury Bills (91 Day)	0.2	0.3	0.5	0.2	0.2	0.6
Real Assets						
Barclays U.S. TIPS Index	-0.4	0.9	-0.6	0.6	0.3	4.3
Bloomberg Barclays Commodity Index	-3.0	-5.3	-6.5	-14.8	-9.3	-6.5
Wilshire Global REIT Index	2.2	3.2	-0.9	6.1	8.8	4.1
NCREIF ODCE (EW) Index	1.7	3.6	8.1	11.6	11.8	5.1
U.S. CPI	0.5	1.5	1.6	0.9	1.3	1.6

U.S. Equity

The U.S. stock market was up 3.0% for the second quarter of 2017. Economic data during the second quarter were solid with growth in both the economy and labor market. Corporate earnings reports during the quarter were stronger than many expected with Financials leading the way but weakness in the Energy sector. The Federal Open Market Committee raised the Fed Funds rate in June by 0.25%, the second such increase this year.

The U.S. equity market has produced an outstanding 14.6% annualized return during the past five years by producing very few (one) negative quarters. The five-year risk (standard deviation) of 7.8% as-of June 30 is approaching an historic low. What makes the current five-year window so intriguing is that it encompasses the period after the market completely recovered from the global debt crisis sell-off.

Non-U.S. Equity

Equity markets outside of the U.S. produced very strong returns during the second quarter, in both developed and emerging markets. While economic data out of Europe continue to improve, Britain is showing signs of struggling with Brexit. Emerging markets are outpacing developed markets in 2017. Returns have been broad based with 21 of the 24 countries in the index (representing more than 95% of the market value) producing positive gains.

Fixed Income

The U.S. Treasury yield curve continued to flatten during the quarter with the one-year yield up 21 basis points and the thirty-year down 18 basis points. The bellwether 10-year Treasury yield ended the quarter at 2.31%, down slightly. Credit spreads continued lower during the quarter in both investment grade and high yield bonds.

Portfolio Review

The ERS net of fee investment performance as of June 30, 2017 is detailed in the following table:

Maryland-NCPPC ERS	$000	Comp %	Calendar YTD %	1 Year %	3 Year %	5 Year %	Inception %
Total Fund (9/30/89)	**870,394**	**100.0%**	**8.4**	**14.7**	**4.8**	**8.2**	**7.6**
Policy Index/Blended Benchmark			*7.2*	*11.3*	*3.3*	*6.9*	*7.7*
Domestic Equity Comp (9/30/89)	**172,518**	**19.8%**	**7.7**	**18.8**	**8.5**	**13.7**	**9.5**
Wilshire 5000 Index			*8.7*	*18.5*	*9.3*	*14.6*	*9.6*
International Equity Comp (3/31/95)	**174,633**	**20.1%**	**18.4**	**27.2**	**2.8**	**9.0**	**6.2**
Policy Index			*14.1*	*20.5*	*0.8*	*7.2*	*4.8*
Global Min. Volatility Comp (6/30/17)	**71,740**	**8.2%**	**--**	**--**	**--**	**--**	**--**
MSCI ACWI Min. Volatility Index (N)			--	--	--	--	--
Private Equity Comp (6/30/13)	**41,503**	**4.8%**	**16.9**	**20.9**	**11.3**	**--**	**6.8**
Wilshire 5000 Index			*11.5*	*18.8*	*4.8*	--	*9.1*
Fixed Income Comp (9/30/89)	**236,623**	**27.2%**	**3.8**	**6.9**	**3.6**	**4.3**	**6.6**
Bloomberg Barclays Aggregate Bond Index			*2.3*	*-0.3*	*2.5*	*2.2*	*6.2*
Private Real Asset Comp (9/30/07)	**108,218**	**12.4%**	**3.9**	**10.3**	**8.4**	**8.6**	**2.0**
Policy Index			*4.0*	*6.7*	*6.0*	*6.4*	*0.5*
Public Real Asset Comp (3/31/13)	**63,430**	**7.3%**	**0.9**	**0.2**	**-2.0**	**--**	**-0.5**
Policy Index			*1.0*	*0.5*	*-1.8*	--	*-0.4*
Managed Cash	**1,729**	**0.2%**	**--**	**--**	**--**	**--**	**--**

The chart above displays the calendar year to date (YTD), one, three, five and inception-to-date returns for the total fund and each of the underlying composites (Periods greater than one-year represent annualized figures). Monthly rates of return are calculated by Wilshire software using a time-weighted rate of return methodology based upon market values. Wilshire's calculation procedure is consistent with the recommendations of both the CFA Institute and the Bank Administrative Institute. The chart shows the relevant broad market benchmark for the asset classes. As applicable, it also shows the policy index which is a blend of benchmarks used currently and historically; and in some cases, represents a weighted benchmark consisting of multiple indexes.

The ERS' total portfolio posted a positive return of 14.7% over the trailing one-year period ending June 30, 2017. During this period, the portfolio exceeded its policy index which returned 11.3%. Over the past one-year period, all asset classes posted positive returns which attributed to strong absolute investment performance. Total portfolio returns have been 4.8% and 8.2% over the three-year and five-year periods, respectively, which are on an average annualized basis. Strong domestic equity markets combined with a continued recovery in the private real estate market have contributed to absolute returns during these longer-term periods.

Within equity markets, the domestic equity composite posted a 18.8% return compared to that of 18.5% for the Wilshire 5000 Index over the trailing one-year period ending June 30, 2017. Longer-term results over the three-year and five-year periods were quite strong, posting a 8.5% and 13.7% return, respectively, during each of those time periods. The international equity portfolio posted strong absolute and relative investment returns over the past year. The portfolio returned 27.2% while the MSCI ACWI ex-U.S. Index, comprised of both developed and emerging market stocks, was up 20.5% over the trailing one-year period in U.S. Dollar terms. Lastly, private equity investments continue to mature and be funded with strong returns of 20.9% in this segment of the portfolio over the past year.

The fixed income composite returned 6.9% during the past year, while the domestic investment grade market represented by the Bloomberg Barclays Aggregate Index returned -0.3%. “Non-core” investments within the fixed income portfolio including high yield and global/opportunistic strategies positively impacted the total fixed income portfolio outperforming the broader investment grade fixed income market. Additional investment opportunities within the Global Opportunistic segment of the portfolio will continue to be evaluated and considered as legacy investments continue to mature and provide a return of capital.

Within the real asset segment of the portfolio, both Private and Public investments posted positive trailing one-year absolute returns of 10.3% and 0.2%, respectively. The public real assets composite has underlying exposures to Treasury Inflation Protected Securities (TIPS), real estate securities, commodities, global natural resource/energy stocks and global infrastructure. All the underlying exposures within the Public Real Asset segment of the portfolio are implemented through passively managed index funds. The private real assets composite returned 10.3% for the trailing one-year period. A portion of this portfolio has benefited from the continued recovery of the commercial real estate market since the global financial crisis. The remaining portion of the portfolio provides exposure to various natural resource and energy related investments, many of which are early in their lifecycles and results are not fully meaningful at this stage.

The ERS Board continued its efforts in maintaining best practices with its investment monitoring, focused on competitive fees and ongoing education. Current portfolio investments are reviewed and monitored on an ongoing basis, while due diligence on potential investments opportunities are conducted on a regular basis.

If you have any questions or need any further information regarding the Plan or investment results, please don’t hesitate to contact me.

Sincerely,

Bradley A. Baker

Bradley A. Baker

Vice President

INVESTMENT MANAGER MATRIX
As of June 30, 2017

Manager Name and/or Fund Name	Style	Market Value $(000) [2]	% of Fund
U.S. Equity			
J.P. Morgan Commingled Pension Trust Fund	130/30 Short Extension	$ 17,062	2.0%
Chicago Equity Partners	Small Cap Value	16,746	1.9%
Northern Trust Collective Russell 2000 Growth Index Fund	Small Cap Growth	17,439	2.0%
RhumbLine S&P 500 Pooled Index Trust	Large Core	121,271	13.9%
		$ 172,518	**19.8%**
International Equity			
Capital Group Institutional All Countries Equity Trust	ACWI ex-U.S.	$ 87,852	10.1%
Earnest Partners, L.L.C.	ACWI ex-U.S.	86,781	10.0%
		$ 174,633	**20.1%**
Global Mimimum Volatility			
Blackrock MSCI ACWI Minimum Volatility Index	MSCI ACWI Minimum Volatility	**$ 71,740**	**8.2%**
Private Equity			
Wilshire MNCPPC Employee Retirement System Global, L.P. (I)	Other	$ 39,927	4.6%
Wilshire MNCPPC Employee Retirement System Global, L.P. (II)	Other	1,576	0.2%
		$ 41,503	**4.8%**
Fixed Income			
C.S. McKee, L.P.	Core	$ 37,702	4.3%
Eaton Vance Management	Core	38,013	4.4%
Golub Capital	Middle Market Direct Lending	17,500	2.0%
Loomis Sayles High Yield Full Discretion Trust	High Yield	31,728	3.7%
Neuberger Berman High Yield Bond Fund, LLC	High Yield	33,354	3.8%
Voya Senior Loan Fund	Bank Loans	35,789	4.1%
Western Asset Global Multi-Sector, LLC	Global Multi-Sector	36,306	4.2%
Oaktree Real Estate Debt Fund, L.P.	Real Estate Debt	4,989	0.6%
Oaktree Opportunities Fund VIII, L.P.	Distressed Opportunities	1,242	0.1%
		$ 236,623	**27.2%**
Private Real Assets			
Principal U.S. Property Account	Real Estate	$ 63,868	7.3%
Aberdeen Energy & Resources Partners II, L.P.	Real Assets	10,920	1.3%
Aberdeen Real Estate Partners II, L.P.	Real Estate	4,988	0.6%
Aberdeen Energy & Resources Partners III, L.P.	Real Assets	14,109	1.6%
Aberdeen Real Estate Partners III, L.P.	Real Estate	8,001	0.9%
GCM Grosvenor Real Asset Investments, L.P.	Real Assets	6,332	0.7%
		$ 108,218	**12.4%**
Public Real Assets			
SSgA Custom Real Asset Non-Lending Strategy	Diversified	**$ 63,430**	**7.3%**
Cash		**$ 1,729**	**0.2%**
TOTAL		**$ 870,394** [1]	**100%**

[1] Net of Accrued Income on Investments and Investments Payable.
[2] Market values provided by Wilshire Associates and not prepared by, reviewed or approved by any of the ERS' partnerships, general partners and/or any of their respective affiliates.

LIST OF LARGEST HELD DOMESTIC EQUITIES

As of June 30, 2017

Equity Income Securities	No. of Shares	Fair Value
ICON PLC COM	30,833	$ 3,015,159
AMADEUS IT GROUP EUR0.01	43,278	2,584,034
CARNIVAL CORP COM PAIRED	36,718	2,407,599
SHIRE PLC ORD GBP0.05	40,222	2,214,201
DNB ASA NOK10	128,880	2,184,759
ADR NOVARTIS AG	25,711	2,146,097
HON HAI PRECISION TWD10	524,700	2,018,077
BARCLAYS PLC ORD GBP0.25	737,881	1,943,299
ROCHE HLDGS AG GENUSSCHEINE NPV	7,249	1,848,489
ADR HDFC BK LTD ADR REPSTG 3 SHS	21,124	1,837,154
DIAGEO ORD PLC	60,393	1,779,581
TAIWAN SEMICON MAN TWD10	257,000	1,761,489
SECOM CO NPV	22,800	1,729,886
EVEREST RE GROUP COM	6,579	1,674,948
CORE LABORATORIES NV NLG0.03	16,426	1,663,461
SAFRAN SA EUR0.20	18,126	1,658,850
DENSO CORP NPV	38,900	1,641,721
PRYSMIAN SPA EUR0.10	55,810	1,639,093
HSBC HLDGS ORD USD0.50(UK REG)	175,250	1,620,121
SAMSUNG ELECTRONIC KRW5000	775	1,610,082

A complete list of assets can be obtained at the office of the Employees' Retirement System.

List of Largest Held Fixed Income

As of June 30, 2017

Fixed Income Securities	Par	Fair Value
CF WESTN ASST GBL MULTI-SECTOR LLC FD	$ 2,052,811	$ 36,303,967
CF VOYA LOAN COMMON TRUST FUND CLASS 1	3,122,993	35,788,605
CF NEUBERGER BERMAN HI YEILD BD LLC FD	733,302	33,353,927
CF LOOMIS HIGH YIELD FULL DISCRETION NHIT A FUND	1,521,725	31,727,963
UNITED STATES TREAS NTS 1.5% DUE 05-15-2020 REG	3,049,000	3,045,545
UNITED STATES TREAS NTS DTD 00306 2.625%DUE 08-15-2020 REG	2,435,000	2,511,379
UNITED STATES OF AMER TREAS NOTES 1.75% 05-31-2022	2,112,000	2,099,626
UNITED STATES TREAS BDS DTD 00218 3.875%DUE 08-15-2040 REG	1,520,000	1,808,741
UNITED STATES TREAS 3% DUE 05-15-2047	1,044,000	1,077,440
UNITED STATES TREAS BDS DTD 02/15/2001 5.375 15 FEB 2031	748,000	1,005,300
UNITED STATES OF AMER TREAS NOTES 0.375%TIPS USD 'A-2027' 01-15-2027	899,000	893,830
UNITED STATES TREAS NTS DTD 12/31/2014 1.625% DUE 12-31-2019 REG	841,000	844,154
UNITED STATES TREAS NTS TREASURY NOTE 1.375% DUE 02-15-2020 REG	685,000	682,833
UNITED STATES TREAS NTS DTD 658 1.375% DUE 08-31-2020 REG	684,000	679,191
UNITED STATES TREAS NTS DTD 11/15/2013 2.75% DUE 11-15-2023 REG	585,000	608,949
UNITED STATES TREAS NTS DTD 01/15/2016 01-15-2026	544,000	563,399
UNITED STATES TREAS NTS DTD 08/15/2013 2.5% DUE 08-15-2023 REG	491,000	503,908
GEORGE WASH UNIV 3.485 DUE 09-15-2022	452,000	468,711
FEDERAL FARM CR BKS CONS SYSTEMWIDE BDS 3.17% DUE 01-05-2027 REG	466,000	464,518
UNITED STATES TREAS BDS 00203 5% DUE 05-15-2037 REG	331,000	454,155

A complete list of assets can be obtained at the office of the Employees' Retirement System.

SCHEDULE OF BROKER COMMISSIONS
As of June 30, 2017

Broker	Shares	Commissions	Commission per share
BANK OF AMERICA CORPORATION	3,407	$ 2,516	73.83%
BARCLAYS CAPITAL	3,355,356	2,901	0.09%
BARCLAYS CAPITAL INC	2,900	67	2.30%
BNP PARIBAS SECURITIES SERVICES SA	23,000	382	1.66%
BROCKHOUSE & COOPER NY	3,582	72	2.00%
CANTOR CLEARING SERVICES	12,045	1,530	12.70%
CAPITAL INSTITUTIONAL SERV NEW YORK	6,664	636	9.55%
CITIGROUP GLOBAL MARKETS INC.	2,223,968	2,339	0.11%
CITIGROUP GLOBAL MARKETS LIMITED	277,899	5,289	1.90%
CLEARSTREAM BANKING S.A.,LUXEMBOURG	7,100	165	2.32%
CONVERGEX EXECUTION SOLUTIONS LLC	21,578	7,545	34.96%
DEUTSCHE BANK SECURITIES INC.	305,090	109	0.04%
DEUTSCHE BANK SECURITITES	71,953	1,683	2.34%
GOLDMAN, SACHS AND CO.	1,436,735	663	0.05%
INVESTMENT TECHNOLOGY GROUP LTD.	38,943	831	2.14%
J.P. MORGAN SECURITIES LLC	618,737	720	0.12%
J.P. MORGAN SECURITIES PLC	35,322	1,283	3.63%
J.P. MORGAN SECURITIES (ASIA PACIFIC)	2,000	23	1.17%
KCG AMERICAS LLC/KD	31,387	1,533	4.88%
LUMINEX TRADING AND ANALYTICS	500	2	0.33%
MERRILL LYNCH INTERNATIONAL LIMITED	349,690	1,508	0.43%
MERRILL LYNCH PIECE FENNER & SMITH	2,556,426	3,977	0.16%
MORGAN STANLEY & CO. LLC	175,195	566	0.32%
MORGAN STANLEY AND CO., LLC	109,706	4,684	4.27%
NATIONAL FINANCIAL SERVICES LLC	173,079	1,287	0.74%
PAVILION GLOBAL MARKETS LTD	707	31	4.39%
PERSHING LLC	417,818	1,291	0.31%
PIPER, JAFFRAY AND HOPWOOD	44,041	1,094	2.48%
RBC CAPITAL MARKETS, LLC	1,766,422	12,461	0.71%
SOCIETE GENERALE LONDON BRANCH	93,529	597	0.64%
STATE STREET GLOBAL MARKETS LLC	47,940	3,325	6.93%
UBS SECURITIES LLC	1,413,725	372	0.03%
	15,626,444	$ 61,482	

The above table is a condensed version of brokers' commissions. A complete list can be obtained at the office of the Employees' Retirement System.

ACTUARIAL
Section

BOOMERSHINE CONSULTING GROUP, LLC
ACTUARIAL & RETIREMENT PLAN SOLUTIONS

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

October 21, 2016

Board of Trustees
The Maryland-National Capital Park and Planning Commission
Employees' Retirement System
6611 Kenilworth Avenue, Suite 100
Riverdale, MD 20737

Re: The M-NCPPC Employees' Retirement System Annual Review and Actuarial Valuation as of July 1, 2016

Dear Board Members:

This report presents the results of the Annual Review and Actuarial Valuation of The Maryland-National Capital Park and Planning Commission Employees' Retirement System (System) prepared as of July 1, 2016 and sets forth the recommended contribution for the Fiscal Year ending June 30, 2018, according to the System's funding policy.

The valuation was performed on the basis of employee census data as of July 1, 2016 and investment fund data as of July 1, 2016, submitted by the Retirement System staff to Boomershine Consulting Group (BCG). BCG did not audit the employee data and financial information used in this valuation; however, we did review for reasonableness and consistency with prior data. On the basis of our review of this data, we believe that the information is sufficiently complete and reliable, and that it is appropriate for the purposes intended.

Beginning with the July 1, 2012 Valuation, the System retained BCG to perform annual valuations.

The report was prepared in accordance with generally accepted actuarial principles and practices. In the opinion of the System and its actuaries, the actuarial assumptions used in our calculations are individually reasonable and reasonable in the aggregate as related to Plan experience and expectations, and represent the best estimate of anticipated Plan experience. **The assumptions and methods used for funding purposes meet the parameters set by relevant Actuarial Standards of Practice.** All assumptions were selected by the actuary, and approved by the Board of Trustees.

The schedules prepared by BCG, and included in the System's Comprehensive Annual Financial Report, are the following:

- Summary of Actuarial Assumptions and Methods
- Schedule of Employer Contributions (required supplementary information)
- Schedule of Funding Progress
- Solvency Test (sent separately)

The amounts in these schedules are based on BCG's results for the valuation dates since and including July 1, 2011 (with revision to AON Hewitt's amounts) and later, and AON Hewitt's results for the valuation dates July 1, 2007 through July 1, 2010. The amounts for the earlier valuation dates are from the actuarial valuation reports of the System's prior actuary.

The amounts in the Schedule of Employer Contributions are based on BCG's valuation results for years since and including fiscal year 2013; AON Hewitt's valuation results for the fiscal years ending June 30, 2009 through June 30, 2012 with modifications by BCG for 2013. The amounts for earlier years are from the actuarial valuation reports of the System's prior actuary. The amounts in the Schedule of Funding Progress are based on BCG's results for the July 1, 2012 through July 1, 2016 valuations; AON Hewitt's results for the valuation dates July 1, 2007 through July 1, 2011, with modifications by BCG for 2011. The amounts for the earlier valuation dates are from the actuarial valuation reports of the System's prior actuary.

FUNDING RECOMMENDATION AND CHANGE IN PLAN COSTS

There was an increase in the Recommended Contribution as a Percentage of Payroll. The return on the Fair Value of Assets and the Actuarial Value of Assets was less than the assumed 7.25% for the 2016 Fiscal Year, resulting in an investment loss.
This investment loss - as well as the changes in economic assumptions Salary Scale, Consumer Price Index (CPI), investment return, cost-of-living adjustments (COLA); and demographic assumptions - mortality, rates of retirement, withdrawal, disability and sick leave accruals - resulted in an increase in the Recommended Contribution.

A contribution of $24,822,301 is the recommended total to meet the System's funding objectives for the 2017-18 fiscal year. This contribution represents 17.29% of covered payroll.

A breakdown of the contribution payable July 1, 2017 between Park Police and Non-Police employees is shown below:

	7/1/2017 Amount	2016 Payroll	% of Payroll
Non-Police	$20,627,058	$128,457,729	16.06%
Park Police	4,195,243	15,076,871	27.83%
Total	$24,822,301	$143,534,600	17.29%

The Net Employer Normal Cost payable at the beginning of the year increased from $11,740,964 (8.3% of payroll) to $13,653,596 (9.5% of payroll). The amortization of the Unfunded Actuarial Accrued Liability increased from $7,157,114 to $9,544,816 primarily due to the actuarial loss on investments and the changes in actuarial assumptions adopted by the Board following the experience study.

The breakdown of the actuarial (gain)/loss (prior to assumption changes) is as follows:

	7/1/2016 Amount	% of Liability/Assets
NET EXPERIENCE (GAIN)/LOSS		
Salary Increases More than Expected	(2,214,588)	(0.2%)
New Hires	1,016,510	0.1%
New Terminations and Retirements	(5,608,639)	(0.6%)
COLA Increases Less Than Expected	(3,063,624)	(0.3%)
Other Experience	4,650,960	0.5%
Total Experience (Gain)/Loss	(5,219,380)	(0.6%)
Actuarial Asset Value (Gain)/Loss	9,952,182	1.2%
Net Actuarial (Gain)/Loss	4,732,802	

PLAN PROVISIONS AND ASSUMPTION CHANGES IN THE FUNDING VALUATION

1) The investment return assumption was changed from 7.25% to 7.00%, with a corresponding decrease in the salary scale and inflation assumptions of 0.25% each. The COLA assumption for pre-2012 benefits was also changed from 2.75% to 2.40% and for post-2012 benefits from 2.50% to 2.00%

The mortality assumption was changed from the RP2000 tables with Scale AA generational improvements to the to the RP2000 tables with Scale BB generational improvements (separate tables for males and females). Rates of retirement, disability and withdrawal were also changed along with an assumption of credit for future sick leave. **The demographic assumptions used for the July 1, 2016 valuation were developed based on the most recent experience study completed in April 2016, and covering experience from July 1, 2011 to June 30, 2015.**

The economic assumptions adopted by the Board **(effective with the July 1, 2016 actuarial valuation)** were changed to align expectations with current and expected future economic conditions.

2) Employee contributions in Plan C were increased from 8.5% to 9.0% and for Plan D were increased from 7.5% to 8.0% of Base Pay.

A separate report for accounting purposes, in compliance with GASB Statement 67, is now issued annually for the System.

PLAN ASSETS AND ANALYSIS OF FINANCIAL EXPERIENCE

A 5-year asset smoothing method is used to develop the Actuarial Value of Assets to determine the funding requirements for the System. Under this method, each year's gain or loss is recognized in five equal portions over five years. The return on the Actuarial Value of Assets was 5.42% during the past year, which is less than the assumed return. Over the five year period ending on the valuation date, the return on the Actuarial Value of Assets was 6.7%. The total Actuarial Value of Assets as of July 1, 2016 is $856,279,531.

The total Fair Value of Assets as of July 1, 2016 is $796,606,613. The return on the Fair Value of Assets was (0.6%) during the past year, which is less than the assumed return. Over the 5-year period ending on the valuation date, the return on the Fair Value of Assets was 5.6%.

The Actuaries whose signatures appear below meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. Please call if you have any questions with regard to the matters enumerated in this report.

BCG's relationship with the Plan and the Plan Sponsor is strictly professional. There are no aspects of the relationship that may impair or appear to impair the objectivity of BCG's work.

We appreciate the opportunity to present the results of this valuation to the Retirement System Trustees.

Sincerely,

David S. Boomershine, EA, FCA, MAAA, MCPA
President and Senior Actuary

Gregory M. Stump, FSA, EA, MAAA, FCA
Chief Actuary and Vice President

Sunita K. Bhatia, EA, ASA, ACA, MAAA
Actuary, Senior Consultant

ACTUARY'S CERTIFICATION LETTER

September 9, 2016

Board of Trustees
The Maryland-National Capital Park and Planning Commission
Employees' Retirement System
6611 Kenilworth Avenue, Suite 100
Riverdale, MD 20737

Re: The M-NCPPC Employees' Retirement System FY2016 GASB 67-68 Disclosure Information (For Financial Reporting Purposes)

Dear Board Members:

This report presents the Governmental Accounting Standards Board (GASB) information based on the Annual Review and Actuarial Valuation of The Maryland-National Capital Park and Planning Commission Employees' Retirement System (System) prepared as of July 1, 2016.

This report was prepared on the basis of employee census data as of July 1, 2016 and investment fund data as of June 30, 2017, submitted by the System. BCG did not audit the employee data and financial information used in the valuation. On the basis of our review of this data, we believe that the information is sufficiently complete and reliable and that it is appropriate for the purposes intended.

This report was prepared in accordance with generally accepted actuarial principles and practices. In the opinion of the System and its actuaries, the actuarial assumptions used are reasonably related to Plan experience and expectations, and represent the best estimate of anticipated Plan experience.

The schedules prepared by BCG and included in the System's Comprehensive Annual Financial Report are the following:

- Long Term Expected Rate of Return
- Development of Net Pension Liability
- Changes in Net Pension Liability
- Sensitivity of the Net Pension Liability to Changes in the Discount Rate
- Schedule of Employer Contributions (required supplementary information)

The Total Pension Liability under GASB 67, as of June 30, 2016 is $924,173,913, compared to the Plan Fiduciary Net Position of $776,338,424, resulting in a (GASB) funding ratio of 84.0%, and a Net Pension Liability of $147,835,489. The ratio represents a 1.9% decrease from one year ago.

The undersigned are members of the American Academy of Actuaries, and are qualified to render the actuarial opinions presented in this report.

Respectfully Submitted,

BOOMERSHINE CONSULTING GROUP, L.L.C.

Gregory M. Stump, FSA, EA, MAAA, FCA
Chief Actuary

David S. Boomershine, EA, MAAA, FCA, MSPA
Senior Actuary

Sunita K. Bhatia, ASA, EA, MAAA, ACA
Senior Consulting Actuary

Actuarial Assumptions and Valuation Methods

Actuarial Cost Method

The Entry Age Normal Actuarial Cost Method divides the cost of funding benefits into two parts: the normal cost and the actuarial accrued liability.

Asset Valuation

Assets are valued using a five-year asset smoothing method. Under this method, the difference between expected asset return and actual asset return is recognized 20% per year over a five-year period. The asset value includes a receivable for any contributions made with respect to the prior actuarial valuation by the time this valuation was prepared.

Amortization Method

Amortize the unfunded actuarial accrued liability over an open/rolling 15-year period.

Valuation Date

July 1, 2016

Investment Rate of Return

7.00% compounded annually.

Salary Increases

2.50% per year plus additional merit increases for 2016 and later as follows:

Years of Service	Park Police	Non-Police
0	0.0400	0.0250
5	0.0300	0.0225
10	0.0225	0.0200
15	0.0200	0.0150
20	0.0200	0.0100
25	0.0200	0.0000

Mortality

Healthy Lives

RP-2000 with male rates set forward 1 year and female rates set forward 2 years with generational method applied using scale BB factors.

For Park Police, 90% of deaths assumed to be service related; for Non-Police 33% of deaths are assumed to be service-related.

Disabled Lives

RP-2000 Disabled with male rates set forward 1 year and female rates set forward 2 years with generational method applied using scale BB factors.

Actuarial Assumptions and Valuation Methods

Withdrawal Decrements

Sample rates:

Park Police		Non-Police		
Years of Service	**Rates**	**Years of Service**	**Males**	**Females**
0	11.0%	0	9.0%	11.7%
2	7.0%	5	4.7%	6.2%
4	4.5%	10	2.5%	3.3%
6	2.9%	15	1.3%	1.7%
8	1.8%	20	0.7%	0.9%
10	1.2%	25+	0.0%	0.0%
15+	0.0%			

Disability Decrements

Sample rates:

Age	Park Police	Non-Police
25	.00256	.000705
30	.00366	.001103
35	.00508	.001643
40	.00693	.002468
45	.00940	.003833
50	.01354	.006285
55	.02288	.007500
60	.03434	.015803

Retirement Decrements

Sample rates:

Years of Service	Park Police [1]
5-19	5%
20-29	10%
30+	100%

100% Retirement also assumed at age 65

Age	Non-Police[1]
45	2.5%
50	4.0%
55	6.5%
60	10.4%
65	16.8%
70	100%

[1] Age 55 minimum for early retirement.

Marriage	90% of male participants and 50% of female participants are assumed to be married with wives assumed to be three years younger and husbands three years older than participant.
Expenses	The assumed interest rate is deemed to be net of investment expenses. Other administrative expenses are added to the normal cost and are assumed to be 0.2% of the actuarial accrued liability.
Post-Retirement Cost-of-Living Adjustment	2.4% compounded annually for benefits based on credit service accrued until July 1, 2012, and sick leave accrued until January 1, 2013, 2.0% compounded annually thereafter.
Social Security Wage Base Increase	3.0% compounded annually.
New Entrants	None assumed.
Unused Sick Leave Service Credit	0.36 additional months per year of service.
Section 415 Dollar Limitation and Section 401(a)(17) Compensation Limit Increase	2.5% compounded annually.

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

(unaudited)

Ten-year historical trend information about the ERS is presented below. This information is intended to help users assess the ERS' funding status on a going-concern basis, assess progress made in accumulating assets to pay benefits when due and make comparisons with other public employee retirement systems.

	(1)	(2)	(3)	(4)	(5)	(6)
Actuarial Valuation Date July 1	**Actuarial Value of Assets**	**Actuarial Accrued Liability (AAL)**	**Unfunded AAL (UAAL) (2) – (1)**	**Funded Ratio % (1)/(2)**	**Covered Payroll**	**UAAL as a Percentage of Covered Payroll (3) / (5)**
2007	$ 600,285,246	$ 615,588,955	$ 15,303,709	97.5	$ 122,825,271	12.5%
2008	633,699,751	662,224,634	28,524,883	95.7	132,240,949	21.6%
2009	541,519,199	726,000,351	184,481,152	74.6	142,590,713	129.4%
2010	609,902,953	763,860,139	153,957,186	79.8	140,407,414	109.7%
2011	659,362,107	761,343,000	101,980,893	86.6	132,490,722	77.0%
2012	660,231,611	802,077,365	141,845,754	82.3	129,911,593	109.2%
2013	690,539,998	831,199,592	140,659,594	83.1	129,134,125	108.9%
2014	766,531,514	879,190,389	112,658,875	87.2	135,041,803	83.40% (1)
2015	830,052,104	887,487,374	57,435,270	93.5	141,670,765	40.50% (1)
2016	856,279,531	949,298,226	93,018,695	90.2	143,534,600	64.80% (1)

(1)This ratio is now reported based on the Net Pension Liability, as defined in GASB 67. The UAAL as a percentage of payroll is no longer required, but is shown here for historical comparison.

Analysis of the dollar amounts of plan net assets, actuarial accrued liability and unfunded actuarial accrued liability in isolation can be misleading. Expressing plan net assets as a percentage of the actuarial accrued liability provides one indication of the system's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system's funding is becoming stronger or weaker.

Generally, the greater funded ratio is, the stronger the system. Trends in the unfunded actuarial accrued liability (or excess of) and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and enables analysis of the system's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage is the stronger the funding of the system.

Notes:
Actuarial valuations are completed annually.
The Entry Age Normal actuarial cost method is used for both funding and for financial reporting purposes.
All actuarial assumptions are the same for both funding and accounting/GASB purposes.

Schedule of Active Member Valuation Data

Valuation Date	Total Number of Members	Annual Salary	Annual Average Pay	% Increase/(Decrease) in Average Pay
General Employees				
7/1/2007	1,874	$ 110,019,634	$ 58,708	8.4
7/1/2008	1,904	118,338,594	62,153	5.9
7/1/2009	2,078	128,800,404	61,983	(0.3)
7/1/2010	2,009	126,594,778	63,014	1.7
7/1/2011	1,898	119,358,603	62,887	(0.2)
7/1/2012	1,866	116,927,658	62,662	(0.4)
7/1/2013	1,874	115,936,747	61,866	(1.3)
7/1/2014	1,879	121,352,682	64,584	4.4
7/1/2015	1,901	126,806,443	66,705	3.3
7/1/2016	1,876	128,457,729	68,474	2.7
Park Police				
7/1/2007	190	$ 12,805,637	$ 67,398	7.5
7/1/2008	197	13,902,355	70,570	4.7
7/1/2009	194	13,790,309	71,084	0.7
7/1/2010	194	13,812,636	71,199	0.2
7/1/2011	187	13,132,119	70,225	(1.4)
7/1/2012	186	12,983,936	69,806	(0.6)
7/1/2013	190	13,197,378	69,460	(0.5)
7/1/2014	191	13,689,120	71,671	3.2
7/1/2015	203	14,864,322	73,223	2.2
7/1/2016	197	15,076,871	76,532	4.5
Total				
7/1/2007	2,064	$ 122,825,271	$ 59,508	8.3
7/1/2008	2,101	132,240,949	62,942	5.8
7/1/2009	2,272	142,590,713	62,760	(0.3)
7/1/2010	2,203	140,407,414	63,735	1.6
7/1/2011	2,085	132,490,722	63,545	(0.3)
7/1/2012	2,052	129,911,593	63,310	(0.4)
7/1/2013	2,064	129,134,125	62,565	(1.2)
7/1/2014	2,070	135,041,802	65,238	4.3
7/1/2015	2,104	141,670,765	67,334	3.3
7/1/2016	2,073	143,534,600	69,240	2.8

Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls

	Added to rolls		Removed from rolls		Rolls end of year			
As of Date	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowance
July 1, 2016	87	$ 2,903,320	15	$ 221,758	1,396	$ 43,331,139	5.70%	$ 31,039
July 1, 2015	76	2,516,877	26	549,556	1,324	40,994,405	5.72%	30,963
July 1, 2014	63	1,827,720	26	622,566	1,272	38,775,456	3.68%	30,484
July 1, 2013	75	2,173,664	16	406,440	1,235	37,399,741	5.92%	30,283
July 1, 2012	68	1,963,919	28	483,565	1,176	35,310,586	7.00%	30,026
July 1, 2011	96	3,425,855	27	528,833	1,136	32,999,162	10.02%	28,691
July 1, 2010	102	3,523,036	12	247,267	1,067	29,992,947	11.47%	28,162
July 1, 2009	76	2,378,257	23	311,465	977	26,905,810	11.45%	27,539
July 1, 2008	NA	NA	NA	NA	924	24,141,406	NA	26,184 [1]

Additions to the rolls include new retirees and the beneficiaries of an active or retired member's death.

Deletions from the rolls include deaths of retirees, deaths of the surviving beneficiaries, surviving children who have reached the age of 18 or 23 if a full-time student, and the expiration of 10-year certain benefits.

The information in this table is presented for the last nine years only. Prior to 2008, the information was not maintained in this format and is not available for comparative purposes.

[1] The average annual allowance results for 7/1/2008 uses an end of the year count of 922, because there are two zero balance deceased benefits in pending status, with no current or future benefits attached.

SOLVENCY TEST

	Actuarial Accrued Liabilities for						
Valuation Date	Member Contributions	Vested Terminations, Retirees and Beneficiaries	Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Assets (%)		
7/1/2007	$ 52,039,017	$ 296,186,895	$ 267,363,043	$ 600,285,246	100	100	94.3
7/1/2008	53,665,183	327,978,867	280,580,584	633,699,751	100	100	89.8
7/1/2009	57,678,803	362,388,083	305,933,465	541,519,199	100	100	39.7 [1]
7/1/2010	58,059,065	408,689,438	297,111,636	609,902,953	100	100	48.2
7/1/2011	57,659,169	461,475,412	242,208,419	659,362,107	100	100	57.9
7/1/2012	61,843,880	466,927,776	273,305,709	660,231,611	100	100	48.1
7/1/2013	64,747,601	501,072,738	265,379,253	690,539,998	100	100	47.0
7/1/2014	68,872,476	516,903,400	293,414,513	766,531,514	100	100	61.6
7/1/2015	72,702,687	531,683,180	283,101,507	830,052,104	100	100	79.7
7/1/2016	74,857,685	541,562,389	332,878,152	856,279,531	100	100	72.1

[1]Note: There was a large drop in assets from 07/01/2008 to 07/01/2009 while liabilities continued to grow. Because the solvency test first fully funds member contributions and the inactives (Vested Terminations, Retirees and Beneficiaries), the active percentage has decreased by a larger percentage because the full asset loss is reflected in this percentage.

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STATISTICAL
Section

Statistical Section Narrative

To assist readers, the Statistical Section of this CAFR presents information to add historical perspective, context, and detail to the Financial Statements, Notes to Financial Statements, and Required Supplementary Information presented in the preceding sections. To provide historical perspective, assess the ERS' overall financial condition, and a sense of trend, the exhibits in this Section are presented in multiple-year formats.

The **Schedule of Changes in Fiduciary Net Position** shows the historical combined effects of the additions and deductions of fiduciary net position over the 10-year period ended June 30, 2017 as well as detailing the ERS' largest source of revenue capacity - investment income June 30, 2010 through 2015 and 2017. Investment loss for the years ended June 30, 2008, 2009 and 2016 assists in providing a context on how the ERS' financial position has changed over time.

The **Schedule of Benefit and Refund Deductions from Fiduciary Net Position By Type** provides the general information of payment trends of annuity data by benefit type and refund of contributions for the 10-year period ended June 30, 2017.

The **Schedule of Average Benefit Payments** provides the summary of statistics relating to the average annuitant's receipt of annuities over the nine-year period ended June 30, 2017.

Schedule of Changes in Fiduciary Net Position

For Years Ended June 30
(dollars in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
ADDITIONS										
Employer contributions	$ 20,268	$ 27,191	$ 28,150	$ 28,750	$ 23,806	$ 32,182	$ 25,633	$ 17,615	$ 14,933	$ 10,561
Member contributions	6,751	6,418	6,340	5,414	5,355	4,396	4,698	5,136	4,893	4,522
Investment income gain/(loss)(net of expenses)	111,662	(4,851)	3,340	107,898	72,802	14,100	111,044	63,460	(119,445)	(55,310)
Total Additions	138,681	28,758	37,830	142,062	101,963	50,678	141,375	86,211	(99,619)	(40,227)
DEDUCTIONS										
Benefit payments	44,628	42,258	39,992	38,170	36,263	33,833	32,775	27,567	25,671	23,636
Refunds	561	461	391	237	369	317	359	335	249	382
Administrative expenses	1,675	1,696	1,587	1,487	1,565	1,453	1,366	1,323	1,359	1,250
Total Deductions	46,864	44,415	41,970	39,894	38,197	35,603	34,500	29,225	27,279	25,268
CHANGE IN FIDUCIARY NET POSITION	**$ 91,817**	**$ (15,657)**	**$ (4,140)**	**$ 102,168**	**$ 63,766**	**$ 15,075**	**$ 106,875**	**$ 56,986**	**$(126,898)**	**$ (65,495)**

Schedule of Benefit and Refund Deductions

From Fiduciary Net Position by Type
For Years Ended June 30
(dollars in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Type of Benefit										
Retirees	$ 40,379	$ 38,268	$ 35,806	$ 34,348	$ 32,618	$ 30,547	$ 29,225	$ 24,289	$ 22,515	$ 20,505
Survivors	4,163	3,895	4,093	3,730	3,555	3,199	3,464	3,192	3,072	3,050
Disability benefits	86	95	93	92	90	87	86	86	83	81
Total Benefits	$ 44,628	$ 42,258	$ 39,992	$ 38,170	$ 36,263	$ 33,833	$ 32,775	$ 27,567	$ 25,670	$ 23,636
Refund of Contributions	$ 561	$ 461	$ 391	$ 237	$ 369	$ 317	$ 359	$ 335	$ 249	$ 382

SCHEDULE OF AVERAGE BENEFIT PAYMENTS

As of July 1, 2016 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	58	169	157	184	272	323	233	1,396
Average monthly benefit	$ 455	$ 684	$ 1,144	$ 1,633	$ 2,757	$ 3,537	$ 4,722	$ 2,593
Average final average salary	$ 41,468	$ 48,615	$ 53,006	$ 57,328	$ 68,187	$ 68,112	$ 77,203	$ 62,784
Average years of service	3.9	8.1	13.1	18.1	23.1	28.8	33.7	21.8

As of July 1, 2015 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	58	161	147	192	260	303	203	1,324
Average monthly benefit	$ 467	$ 703	$ 1,166	$ 1,733	$ 2,772	$ 3,578	$ 4,761	$ 2,580
Average final average salary	$ 42,664	$ 48,314	$ 53,111	$ 58,300	$ 67,077	$ 67,205	$ 76,338	$ 62,064
Average years of service	3.9	8.1	13.0	18.2	23.1	28.6	33.4	21.4

As of July 1, 2014 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	54	152	145	173	249	270	229	1,272
Average monthly benefit	$ 452	$ 691	$ 1,082	$ 1,603	$ 2,752	$ 3,441	$ 4,600	$ 2,540
Average final average salary	$ 41,194	$ 47,568	$ 50,122	$ 55,644	$ 67,593	$ 66,475	$ 73,373	$ 60,988
Average years of service	3.9	8.1	12.9	18.1	23.1	28.7	33.6	21.7

As of July 1, 2013 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	49	146	137	176	243	261	223	1,235
Average monthly benefit	$ 446	$ 698	$ 1,064	$ 1,605	$ 2,687	$ 3,441	$ 4,545	$ 2,524
Average final average salary	$ 40,190	$ 45,897	$ 48,727	$ 55,496	$ 66,417	$ 65,815	$ 72,293	$ 60,095
Average years of service	3.8	8.2	12.9	18.1	23.1	28.7	33.6	21.8

As of July 1, 2012 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	45	137	129	166	231	250	218	1,176
Average monthly benefit	$ 464	$ 701	$ 1,035	$ 1,615	$ 2,612	$ 3,405	$ 4,450	$ 2,508
Average final average salary	$ 38,126	$ 45,665	$ 46,972	$ 54,389	$ 64,336	$ 65,415	$ 71,397	$ 59,131
Average years of service	3.6	8.2	13.0	18.1	23.1	28.7	33.6	21.9

As of July 1, 2011 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees & Survivors	44	129	121	160	223	246	213	1,136
Average monthly benefit	$ 667	$ 655	$ 994	$ 1,604	$ 2,489	$ 3,293	$ 4,218	$ 2,431
Average final average salary	$ 36,863	$ 43,873	$ 44,960	$ 53,170	$ 62,126	$ 63,845	$ 69,781	$ 57,576
Average years of service	3.5	8.1	13.0	18.1	23.1	28.7	33.5	22.0

As of July 1, 2010 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees & Survivors	42	123	115	155	199	233	200	1,067
Average monthly benefit	$ 390	$ 635	$ 950	$ 1,567	$ 2,429	$ 3,191	$ 4,137	$ 2,347
Average final average salary	$ 31,968	$ 42,356	$ 44,112	$ 51,773	$ 58,916	$ 61,395	$ 67,461	$ 55,213
Average years of service	3.6	8.1	13.0	18.1	23.1	28.6	33.5	21.9

As of July 1, 2009 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees & Survivors	43	110	111	151	185	203	174	977
Average monthly benefit	$ 408	$ 645	$ 944	$ 1,550	$ 2,423	$ 3,137	$ 4,191	$ 2,294
Average final average salary	$ 32,038	$ 41,515	$ 42,935	$ 49,951	$ 56,984	$ 57,880	$ 65,423	$ 52,791
Average years of service	3.6	8.1	12.9	18.1	23.1	28.6	33.4	21.6

As of July 1, 2008 — **Years of Credited Service --->**

	0-5	6-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees & Survivors	40	107	116	138	170	191	162	924
Average monthly benefit	$ 102	$ 627	$ 927	$ 1,406	$ 2,285	$ 3,020	$ 4,114	$ 2,184
Average final average salary	$ 30,442	$ 40,181	$ 41,689	$ 45,753	$ 54,026	$ 56,042	$ 65,097	$ 50,560
Average years of service	3.6	8.2	12.9	18.1	23.1	28.7	33.4	21.5

[1]Data for 2007 not readily available.

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