# COMPREHENSIVE ANNUAL FINANCIAL REPORT OF THE METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND

FOR THE YEAR ENDED
DECEMBER 31, 2019

PREPARED BY THE ADMINISTRATIVE STAFF OF THE METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND

THIS PAGE INTENTIONALLY LEFT BLANK

**TABLE OF CONTENTS** .......... **Page**

**T A B L E  O F  C O N T E N T S** (CONTINUED) ........ **Page**

# INTRODUCTORY SECTION

Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Metropolitan Water Reclamation District Retirement Fund, Illinois**

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

**December 31, 2018**

Christopher P. Morrill

Executive Director/CEO

# METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND

Jim Mohler
*Executive Director*



June 30, 2020
Board of Trustees of the
Metropolitan Water Reclamation
District Retirement Fund
111 E. Erie Street
Chicago, Illinois 60611

Dear Trustees:

Submitted herewith is the Comprehensive Annual Financial Report (CAFR) of the Metropolitan Water Reclamation District Retirement Fund (Fund) for the year ending December 31, 2019. This CAFR provides a comprehensive overview of the Fund's activities and operations for the year. The management of the Fund is responsible for the completeness and accuracy of the information presented in this report. In accordance with the Illinois Pension Code, the Fund's financial statements for the fiscal year ended December 31, 2019 have been subject to an audit by independent auditors selected by the Board of Trustees. The unmodified opinion of Legacy Professionals, LLP has been included in the Financial Section of this report.

Management has established and maintained a system of internal accounting controls designed to safeguard Fund assets and ensure that adequate accounting data is compiled to allow for the preparation of financial statements in conformity with Generally Accepted Accounting Principles (GAAP). The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management. To the best of our knowledge and belief, the enclosed financial statements, supporting schedules and statistical tables are accurate in all material respects and are reported in a manner designed to present fairly the financial position and the results of operations of the Fund.

GAAP requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of a Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The MD&A can be found in the Financial Section following the report of the independent auditor.

## FUND PROFILE

The Fund was established in 1931 by the State of Illinois legislature and is administered in accordance with Articles 1, 13, and 20 of the Illinois Pension Code (40 ILCS Act 5).

The Fund is led by a Retirement Board of Trustees (Board), that administrates a single-employer defined benefit public employee retirement fund sponsored by the Metropolitan Water Reclamation District of Greater Chicago (District) to provide retirement, survivor and disability benefits for certain employees of the District and Fund employees. The Fund is a pension trust fund of the District and as such, is included in their financial statements.

As of December 31, 2019, the Fund serves 1,817 active members, 2,465 benefit recipients, and 131 inactive members. A further description of the Fund membership is provided within the notes to the financial statements in the Financial Section and within the Actuarial Section of this report.

## FINANCIAL CONDITION

### Financial Position

In 2019, the Net Position of the Fund increased by $162.8 million, reflecting strong returns on Fund assets. For a more detailed analysis of the Fund's financial position, please refer to the Financial and Investment Sections of this report.

### Objective and Sources of Funding

The objective of the Fund is to administer the benefits codified within the Illinois Pension Code to present and future members. Benefits earned are funded by contributions from the employer (the District) and employees, and earnings on Fund assets.

Earnings on Fund assets typically provides the largest portion of total additions in any given year. In 2019, the invested assets of the Fund earned a rate of return of 18.3% net of fees, compared to the 2018 rate of return of -7.5%. The ten-year annualized rate of return on the Fund's investments is 8.8% net of fees, exceeding the actuarially assumed rate of return of 7.25%.

Employer contributions have grown steadily since 2012 due to the passage of PA 97-0894 and the establishment of a funding policy by the District Board of Commissioners in 2014. Since then, the Fund has received employer contributions that have met or exceeded the annual statutory actuarial determined contribution requirement.

Employee contributions are withheld from employee's salaries in accordance with the Illinois Pension Code. Since 2012, contributions from Tier I employees increased, capping at 12% in 2015, where they will remain until the Fund reaches 90% funded. Contributions from Tier II employees, hired after December 31, 2010, are set at 9% of salary, with a pensionable salary cap in 2019 of $114,952.

### Funding Status

An important measure of the long-term financial stability of a pension fund is its funded ratio which compares the actuarial value of assets to the actuarial accrued liability. The greater the funded ratio, the greater assurance is given to participants that the Fund will meet its obligations to pay pension benefits in the future. The Fund engages an independent actuary to perform an annual actuarial valuation of the Fund. The December 31, 2019 valuation report stated the actuarial value of assets (AVA) at $1.489 billion, the actuarial accrued liability (AAL) at $2.666 billion, and the unfunded AAL at $1.177 billion, resulting in a funded ratio of 55.9%.

A funded ratio is a measure at one point in time but is best viewed in the context of its historical trend to assess a fund's progress towards being fully funded. For a more complete understanding of the Fund's funding status, the reader is encouraged to review the Actuarial section of this report which contains a summary of valuation results, schedules that analyze funding, and details about the data used in the valuation. Ten-year trend information is available in both the Actuarial and Statistical sections.

### Investments

The Board utilizes an investment consulting firm who assists with investment manager searches, manager selection and oversight, performance reporting, attribution analysis, and the development of an investment policy that establishes a prudent level of risk to achieve an assumed rate of return. Invested assets are diversified to reduce the effect of non-systematic risk on returns.

At year end, the Board utilized 15 investment management firms to manage 19 separate mandates that totaled $1.436 billion in investment assets.

The Investment Section of this CAFR contains details regarding the Fund's investment policy, performance, diversification, investment expenses and a summary of the investment activities that took place in 2019. Also included are the Custodian's report and the Investment Consultant's report.

## MAJOR ACTIVITIES AND HIGHLIGHTS

- In June 2019 the Board submitted to the District Board of Commissioners the amount of $88,127,000 required to be raised in accordance with their funding policy adopted on August 27, 2014. This amount was slightly higher than the 2019 $87,319,000.
- The Board's asset allocation of 5% to core open-end real estate was expanded to 10% in May 2019
- Changes to the Retirement Board in 2019 by appointment or election included:
    - Commissioner Barbara McGowan, Vice President of the District Board of Commissioners, resigned from the Retirement Fund Board in January 2019 after 11 years of service to the Fund
    - Commissioner Kimberly Du Buclet was appointed to the Board to complete the term of Commissioner McGowan
    - Joseph F. Kennedy retired on July 31st after 32 years of employment with the MWRD and 20 years of dedicated service to the Fund membership
    - In September 2019, Kevin Young was appointed to fill the Trustee vacancy resulting from the retirement of Joseph Kennedy
    - In the October 2019 Trustee election, Stephen J. Carmody was re-elected as Trustee for a four-year term beginning December 1st
    - Board Officers for 2019 were elected as follows: John P. Dalton, President; Robert T. Regan, Vice President; and Hon. Mariyana Spyropoulos, Secretary

- Retirement Fund staff changes include:
    - Ka Yu Cuchra was hired in April 2019 as Office Services Assistant
    - Jim Mohler, former Executive Director at Municipal Employees' Annuity and Benefit Fund of Chicago, was hired in June 2019 following the retirement of Susan Boutin in April after more than 21years of service to the Retirement Fund
- Retirement Fund member-related activity in 2019 includes:
    - 31,100 benefit payments paid to retirees and beneficiaries totaling $166.7M; 99% paid via electronic funds transfer
    - 94 new retirees and 30 new spouse/child annuitants added to annuity payroll; 59 retirees and 43 spouse/child annuitants removed from payroll due to death or termination
    - Preparation of annuity estimates for 460 active employees
    - Processing of ordinary and duty disability benefits for 54 and 41 individuals, respectively
- Retirement Fund investment and administrative activity in 2019 includes:
    - Investment consultant RFP was posted in January; 6 responses were evaluated and the Board selected Marquette Associates in March for a 5-year contract beginning June 1, 2019
    - Core Plus Diverse Fixed Income investment manager RFP was posted in May; 9 responses were evaluated and the Board selected Ramirez Asset Management in September
    - Independent Auditing Services RFP was posted in September 2019; 6 responses were evaluated and the Board selected Legacy Professionals LLP in October
    - 47 wire transfers of funds for purposes of funding benefit payments, funding new allocations or managers, and investment rebalancing
    - 60 meetings with investment managers to discuss current investment offerings including 6 with diverse investment managers
    - Fund staff began a search for a consultant to assist with selection of a new Pension Administration System vendor
    - Responses prepared and sent to fulfill 33 FOIA requests
- Member communications in 2019 include:
    - New employee orientation provided to 107 new hires of the District throughout the year
    - April mailing of over 1,950 contribution statements to all active and inactive members, listing cumulative pension contributions through December 31, 2018
    - Eight days of plant-site individual retirement counseling sessions, presented by the Fund's benefits staff to approximately 156 individual employees at the Stickney, Calumet, O'Brien and Egan plants
    - July, August and September issues of Vested Interest, the Fund's newsletter, prepared and mailed to all members

- Trustees and staff participated in several training sessions during 2019, including:
  - Annual Illinois Reciprocal Conference
  - International Foundation of Employee Benefit Plans Annual Conference
  - Multi-Asset Investing, ESG Investing, sponsored by Pension & Investments
  - Midwest Institutional Investors Forum, sponsored by Institutional Investors
  - Redefining Fixed Income Conference, sponsored by Institutional Investors
  - Marquette Associates 2019 Investment Symposium

## AWARDS

The Government Financial Officers Association of the United States and Canada (GFOA) awarded the Certificate of Achievement for Excellence in Financial Reporting to our Fund for its CAFR for the fiscal year ended December 31, 2018. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports.

To be awarded the Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents meet or exceed the program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for only one year. The Metropolitan Water Reclamation District Retirement Fund has received a Certificate of Achievement for the last 26 years. We believe our current report continues to conform to the Certificate of Achievement program requirements. We are, therefore, submitting it to the GFOA to determine its eligibility for a Certificate of Achievement for the year ending December 31, 2019.

## ACKNOWLEDGMENTS

This report is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship of the assets of the Fund.

We take this time to recognize Susan A. Boutin, former Executive Director of the Fund, for her years of selfless service to the Fund membership and many years of leadership in the creation of the CAFR.

The preparation of this report reflects the combined efforts of the Fund staff under the leadership of the Board of Trustees. We thank the Fund staff for their commitment to serving the membership and thank all that participated in the preparation of this report.

Respectfully submitted,

Jim Mohler
Executive Director

Vrinda Kulkarni
Fund Accountant

## BOARD OF TRUSTEES
## 12/31/19

**John P. Dalton, Jr.**, President
Mr. Dalton began his District employment in 1993. He currently works in the District's Maintenance & Operations Department as Master Mechanic I at the Calumet Water Reclamation Plant. He was appointed to the MWRD Retirement Fund Board of Trustees in 2005, elected to serve a three-year term on the Board in 2006, and re-elected in 2009, 2013 and in 2017 for a four-year term ending in November 2021.

**Robert T. Regan**, Vice President
Mr. Regan began his District employment in 1991. He currently works in the District's Maintenance & Operations Department as a Principal Mechanical Engineer at the Stickney Water Reclamation Plant. He was elected by the employees to serve a three-year term on the MWRD Retirement Fund Board of Trustees in 2004, re-elected in 2007, 2010, 2014 and in 2018 for a four-year term ending in November 2022.

**Honorable Mariyana T. Spyropoulos**, Secretary
Commissioner Spyropoulos has served on the MWRD Board of Commissioners since 2009 and served as President from 2015 to 2019. She was appointed to the MWRD Retirement Fund Board of Trustees upon expiration of the term served by the Hon. Cynthia M. Santos, for a three-year term starting in January 2013. She was re-appointed in 2016, and again in 2019 for a three-year term ending in January 2022.

**Stephen J. Carmody**, Trustee
Mr. Carmody began his District employment in 1989. He currently works in the District's Maintenance & Operations Department as Engineer of Treatment Plant Operations I at the Stickney Water Reclamation Plant. He was elected in November 2008, re-elected in 2011, 2015 and again in 2019 for a four-year term ending in November 2023. (Note: Trustee Carmody retired as of April 30, 2020)

**Kevin Young**, Trustee
Mr. Young began his employment at the Metropolitan Water Reclamation District Retirement Fund in 1996 as the Fund's Programmer Analyst. In April 2007 he became an employee in the District's Information Technology Department and currently works as a Senior Applications Administrator. He was appointed to the MWRD Retirement Fund Board of Trustees in September 2019, following the retirement of Trustee Joseph F. Kennedy, to complete a four-year term ending November 2020.

**Honorable Kimberly Du Buclet**, Trustee
Commissioner Du Buclet was elected to the District Board of Commissioners in November 2018. She was appointed to the MWRD Retirement Fund Board of Trustees in January 2019 following the resignation of Vice President Barbara J. McGowan to complete a three-year term ending in January 2021.

**Kathleen Therese Meany,** Retiree Trustee
Ms. Meany served on the District Board of Commissioners beginning in 1990; she served as Vice President for 16 years, and President from 2013 until her retirement in 2014. She was appointed to the MWRD Retirement Fund Board as Retiree Trustee in 2016 to complete the unexpired term of Harold G. Downs. Ms. Meany was re-appointed in 2017 and again in 2020 for a three-year term ending in January 2023.

# EXECUTIVE STAFF, ADVISORS AND INVESTMENT MANAGERS
# 12/31/19

## EXECUTIVE STAFF
Jim Mohler, Executive Director
Mary Murphy, Operations Manager

## ADVISORS
- Legal Counsel: Jacobs, Burns, Orlove, and Hernandez, Chicago, IL
- Investment Consultant: Marquette Associates, Chicago, IL
- Consulting Actuary: Foster & Foster, Naperville, IL
- Auditor: Legacy Professionals, LLP, Chicago, IL
- Custodian: The Bank of New York Mellon Co., New York, NY

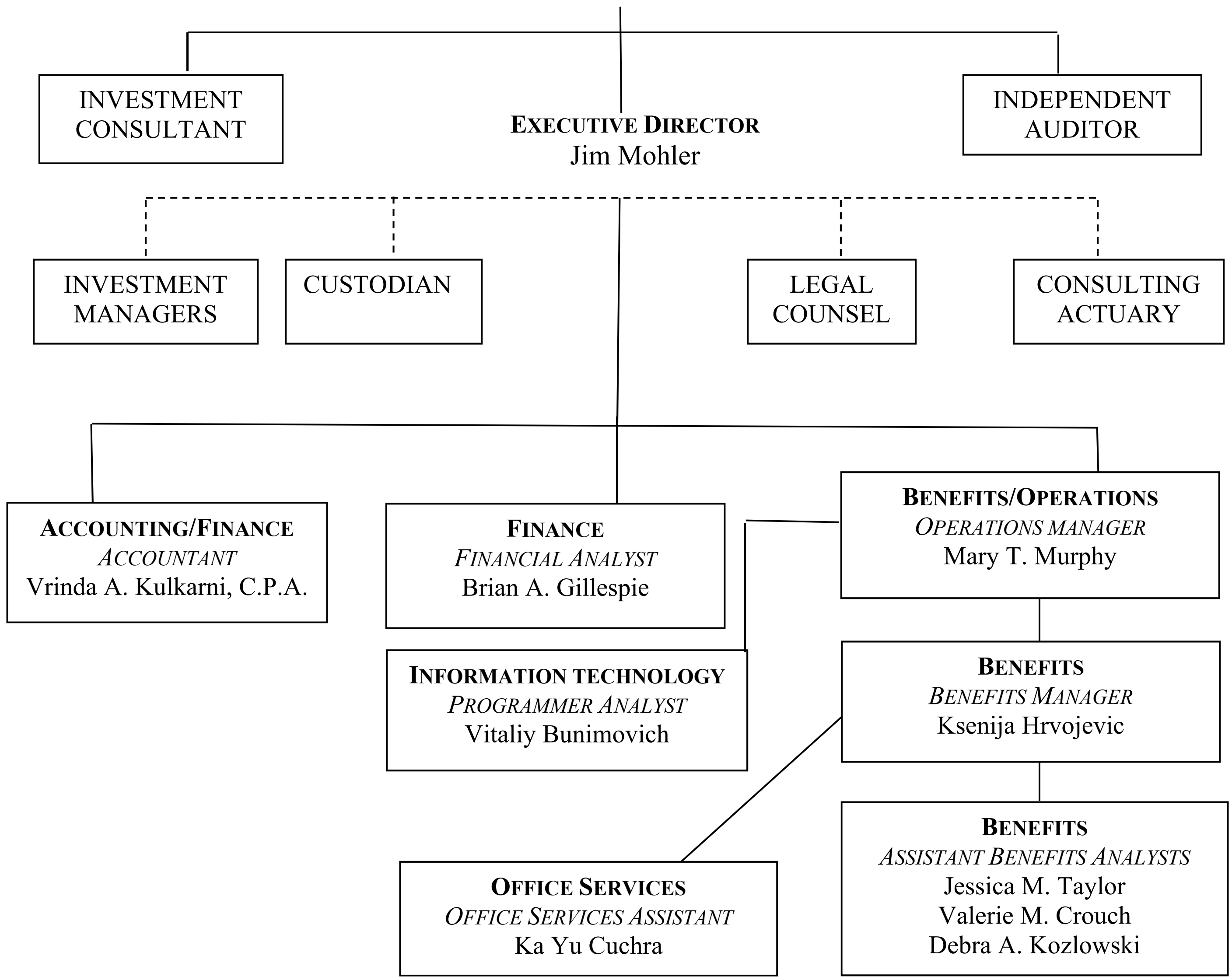
## INVESTMENT MANAGERS
1. Ariel Investments, Chicago, IL
2. DWS, Chicago, IL
3. Decatur Capital Management Inc., Decatur, GA
4. Dimensional Fund Advisors, Austin, TX
5. Garcia Hamilton & Associates, Houston, TX
6. Hexavest Inc., Montreal, Canada
7. LSV Asset Management, Chicago, IL
8. Matarin Capital Management, New York, NY
9. Mesirow Financial, Chicago, IL
10. Neuberger Berman, New York, NY
11. O'Shaughnessy Asset Management, Stamford, CT
12. Ramirez Asset Management, New York, NY
13. State Street Global Advisors, Boston, MA
14. UBS Realty Investors, Chicago, IL
15. Wasatch Advisors, Salt Lake City, UT

Assets under management and fees paid to investment professionals can be found in the Investment Section of this CAFR, on pages 71 - 74.

# ORGANIZATIONAL CHART

**December 31, 2019**

**BOARD OF TRUSTEES**
John P. Dalton, Jr. (President)
Robert T. Regan (Vice President)
Commissioner Mariyana T. Spyropoulos (Secretary)
Stephen J. Carmody (Trustee)
Commissioner Kimberly Du Buclet (Trustee)
Kevin Young (Trustee)
Kathleen T. Meany (Retiree Trustee)




——— Full and direct authority and responsibility.
- - - - Appointment by the Board of Trustees, direction and coordination by the Executive Director.

## RESPONSIBILITIES OF THE BOARD OF TRUSTEES

The Board of Trustees of the Retirement Fund (Board) is composed of seven members. Two Trustees are appointed by the District Board of Commissioners, one is a retiree appointed by the District Board of Commissioners (BOC) and approved by the Retirement Fund Board, and four are District employees elected by the active members of the Fund. Appointed members serve for terms of three years, and elected members serve for terms of four years on a rotating basis so that each year, one seat on the Board is up for election and another is up for appointment.

In accordance with the Illinois Pension Code, the Board has the powers and duties to collect all contributions due to the Fund, to direct the prudent investment of Fund assets, to authorize or suspend payment of any benefits, to makes rules and regulations for the proper conduct of the affairs of the Fund, and to appoint employees and consultants. The Board approves an annual budget which is prepared by Fund staff, and submits an annual report of the affairs of the Fund to the District BOC and the State of Illinois Department of Insurance.

## RESPONSIBILITIES OF THE STAFF

The Board of Trustees appoints an Executive Director who is responsible for all administrative functions, supervision of staff, and for the administration and payment of benefits to the members of the Fund under the direction of the Board. The Executive Director also works closely with the Investment Consultant and Financial Analyst to develop and maintain the Fund's investment policy and bring recommendations to the Board for their consideration. The Executive Director also oversees the work of the Fund's Actuary who brings recommendations to the Board for the actuarial assumptions used in the annual valuation, based on an experience analysis performed every four to five years. The Executive Director also works with legal counsel to review contracts with service providers and solicits advice on various issues including statutory interpretations, determinations from the Internal Revenue Service and potential legal actions.

The Operations Manager directly supports the Executive Director in the day-to-day running of the Fund, proposes technology initiatives, maintains the Fund website, supervises the Programmer Analyst, and serves as a resource to the Benefits Manager in interpreting the benefit statutes. The Programmer Analyst is responsible for the data processing that produces benefits payments and records employee contributions in the Fund's proprietary benefit management software, maintaining the pension database, and maintaining software and hardware.

The Financial Analyst works closely with the Executive Director to provide monthly investment performance updates to the Board. The Financial Analyst also works closely with the Fund's Investment Consultant on investment manager searches, asset transitions, investment monitoring, and asset allocation studies.

The Fund Accountant is responsible for the general accounting that serves as the basis for the annual financial statements and works closely with the Independent Auditor to complete the annual audit. The Fund Accountant also coordinates the preparation by staff of the annual CAFR and serves as the Fund's FOIA Officer.

The Benefits Manager supervises a staff of four that are responsible for the computation of annuity benefits, refunds of spousal contributions at the time of retirement to unmarried employees, contribution refunds to qualified participants, survivor benefits or refunds to estate, in accordance with the Illinois Pension Code. Staff certifies reciprocal service credit and assists the District in transitioning retiring members to their sponsored retiree healthcare plans. Benefit calculations are presented to the Board for authorization of payments. The staff is responsible for distribution of benefit payments and the associated withholdings for taxes, insurance, credit union deductions, as well as year-end tax reporting (IRS Form 1099-R).

Benefits staff are also responsible for the administration of ordinary and duty disability benefits to disabled employees as provided in the Illinois Pension Code. Responsibilities include verification of the disability, and calculation and payment of the benefits. The benefit staff also maintain a record of pension contributions and pension service credit earned over the course of each employee's career.

Throughout the year benefits staff prepare retirement estimates, which may include calculations of applicable refund repayment and leave of absence payment estimates to qualified individuals. In the spring, staff travels to District plants to provide on-site individual retirement counseling. In addition, periodic pre-retirement seminars are jointly presented by Fund and District staff at various locations throughout the District, and an informative newsletter is produced twice per year for the membership.

THIS PAGE INTENTIONALLY LEFT BLANK

# FINANCIAL SECTION

LEGACY
PROFESSIONALS LLP
CERTIFIED PUBLIC ACCOUNTANTS

## INDEPENDENT AUDITORS' REPORT

To the Trustees
Metropolitan Water Reclamation
District Retirement Fund

***Report on the Financial Statements***
We have audited the accompanying financial statements of the Metropolitan Water Reclamation District Retirement Fund (the Fund), a fiduciary fund of the Metropolitan Water Reclamation District of Greater Chicago (the District), which comprise the statement of fiduciary net position as of December 31, 2019, the related statement of changes in fiduciary net position for the year then ended and the related notes to the financial statements, which collectively comprise the Fund's basic financial statements. The Fund's financial statements include partial prior-year information for 2018. Such information does not include various notes to the basic financial statements and the management's discussion and analysis for 2018, which are required to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the Fund's financial statements for the year ended December 31, 2018, from which such partial information was derived.

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

***Auditors' Responsibility***
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

4 Westbrook Corporate Center | Suite 700 | Westchester, IL 60154 | 312-368-0500 | 312-368-0746 Fax | www.legacycpas.com

*Auditors' Responsibility (continued)*
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 financia 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 in the first paragraph present fairly, in all material respects, the fiduciary net position of Metropolitan Water Reclamation District Retirement Fund as of December 31, 2019, and the changes in fiduciary net position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

*Other Matters*
*Required Supplementary Information*
Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 6 through 6e and the schedules of changes in the District's net pension liability and related ratios, of District contributions and related note, and of investment returns on pages 31 through 33 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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Matters (continued)*

*Supplementary Information*

Our audit was conducted for the purpose of forming an opinion on the Fund's basic financial statements as a whole. The accompanying schedules of administrative expenses, of investment expenses, of payments to consultants and of postemployment healthcare disclosure on pages 34 through 36 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit 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 information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

*Other Reporting Required by Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated April 28, 2020, on our consideration of the Metropolitan Water Reclamation District Retirement Fund's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Metropolitan Water Reclamation District Retirement Fund's internal control over financial reporting and compliance.

Legacy Professionals LLP

Westchester, Illinois

April 28, 2020

LEGACY
PROFESSIONALS LLP
CERTIFIED PUBLIC ACCOUNTANTS

## INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Trustees
Metropolitan Water Reclamation
District Retirement Fund

*Report on the Financial Statements*
We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of Metropolitan Water Reclamation District Retirement Fund (the Fund), which comprise the statement of fiduciary net position as of December 31, 2019, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated April 28, 2020.

*Internal Control over Financial Reporting*
In planning and performing our audit of the financial statements, we considered the Fund's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Fund's internal control. Accordingly, we do not express an opinion on the effectiveness of the Fund's internal control.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

4 Westbrook Corporate Center | Suite 700 | Westchester, IL 60154 | 312-368-0500 | 312-368-0746 Fax | www.legacycpas.com

***Internal Control over Financial Reporting (continued)***
A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Fund's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

***Compliance and Other Matters***
As part of obtaining reasonable assurance about whether the Fund's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

***Purpose of this Report***
The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Fund's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Metropolitan Water Reclamation District Retirement Fund's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Legacy Professionals LLP

Westchester, Illinois

April 28, 2020

**METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND**
(A Component Unit of the Metropolitan Water Reclamation District of Greater Chicago)

# MANAGEMENT'S DISCUSSION AND ANALYSIS

The management of the Metropolitan Water Reclamation District Retirement Fund (the Fund) presents this narrative overview of the financial statements and financial performance of the Fund for the years ended December 31, 2019 and 2018. The Management's Discussion and Analysis (MD&A) is designed to focus on current activities, resulting changes and current known facts. It should be read in conjunction with the letter of transmittal, the financial statements and their accompanying notes, required supplementary information, and other supplementary information.

## FINANCIAL HIGHLIGHTS

- The Fund's investment portfolio returned 18.3% and (7.5)% (net of fees) for the calendar years 2019 and 2018, respectively. The Fund's Policy Index returned 18.8% and (6.9)% for the same years, respectively.

- Income from contributions and investment income exceeded payments for benefits and administrative expenses in 2019, resulting in an increase in the Fund's net position restricted for benefits of $162.8 million or 12.1% to $1.51 billion at December 31, 2019, from the prior year end.

- The Fund's funding ratio, using the actuarial value of assets, was 55.9% as of December 31, 2019, slightly down from 56.5% at December 31, 2018. Since 2012, the Fund has seen an upward trend in the funding ratio, from 50.4% to 55.9%. This was mainly due to an increase in contributions from the District and solid investment returns over time. Funding ratios will vary annually depending on the volatility of the investment markets, but the District's commitment to properly funding the Fund should help continue an upward trend in funding levels.

## UNDERSTANDING THE FUND'S FINANCIAL STATEMENTS

The Fund prepares its financial statements on an accrual basis in accordance with generally accepted accounting principles promulgated by the Governmental Accounting Standards Board. The statement of fiduciary net position provides information about the nature and amount of investments available to satisfy the pension benefit obligations of the Fund. The statement of changes in fiduciary net position accounts for all additions to and deductions from the net position held in trust for pension benefits. This statement measures the Fund's performance over the past year in increasing or decreasing the fiduciary net position available for pension benefits.

While the statement of fiduciary net position and statement of changes in fiduciary net position provide important financial information, significant actuarial factors also need to be considered in order to determine the financial health of the Fund. Two primary factors are the funded status and the actuarially determined contribution requirement, both of which are calculated by the Fund's actuary.

## UNDERSTANDING THE FUND'S FINANCIAL STATEMENTS (CONTINUED)

The funded ratio of the Fund is the actuarial value of assets divided by the total actuarial liability, and is calculated using the 5-year smoothed market-related value method. The smoothing prevents extreme volatility in the actuarial value of assets due to short-term fluctuations in the investment markets.

Another important calculation by our actuary is the Actuarially Determined Contribution Requirement which combines the employer's normal cost with an amount needed to amortize the net pension liability by the year 2050. This can be compared to the actual contribution from the employer to determine the adequacy of employer contributions to fund the liabilities of the plan.

This report contains the following three components:

1. Basic Financial Statements which are the statement of fiduciary net position, the statement of changes in fiduciary net position, and the notes to the financial statements which contain information that is integral to the financial statements

2. Required Supplementary Information which presents important actuarial information

3. Other Supplementary Information which gives details of administrative, investment, and payments to consultants, as well as disclosure regarding post employment healthcare

## FIDUCIARY NET POSITION

A summary of net position for the plan at December 31, 2019 and 2018 is shown in the following table and discussion. These financial statements reflect the resources available to pay future benefits to retirees and beneficiaries at the close of the reported years. Details of fiduciary net position at December 31, 2019 and 2018 are found on page 7.

### Condensed Statement of Fiduciary Net Position

| | 12/31/19 | 12/31/18 | $ Change | % Change |
|---|---|---|---|---|
| **ASSETS:** | | | | |
| Cash | $ 243,150 | $ 2,131,153 | $ (1,888,003) | -88.6% |
| Employer contributions receivable | 87,319,000 | 87,281,000 | 38,000 | 0.0% |
| Due from broker | 38,456,244 | 111,904,867 | (73,448,623) | -65.6% |
| Other receivables | 3,579,469 | 3,896,683 | (317,214) | -8.1% |
| Investments | 1,422,895,959 | 1,242,672,493 | 180,223,466 | 14.5% |
| Securities lending collateral | 12,776,445 | 14,166,319 | (1,389,874) | -9.8% |
| Total assets | 1,565,270,267 | 1,462,052,515 | 103,217,752 | 7.1% |
| **LIABILITIES:** | | | | |
| Accounts payable | 1,222,678 | 1,210,249 | 12,429 | 1.0% |
| Due to broker | 44,436,866 | 102,681,679 | (58,244,813) | -56.7% |
| Securities lending collateral | 12,776,445 | 14,166,319 | (1,389,874) | -9.8% |
| Total liabilities | 58,435,989 | 118,058,247 | (59,622,258) | -50.5% |
| **NET POSITION** | $ 1,506,834,278 | $ 1,343,994,268 | $ 162,840,010 | 12.1% |

During 2019, the net position of the Fund increased $162.8 million or 12.1% from net position at December 31, 2018. This increase was primarily due to the increase in investment values, resulting from positive investment returns in 2019.

Other changes in the components of assets on the statement of fiduciary net position have a corresponding change in liabilities, resulting in no effect on net position. Specifically, the amounts for assets and liabilities for forward exchange contracts and securities lending collateral fluctuate from year to year depending on the amount of security transactions traded but not settled and on the amount of securities out on loan at year-end.

Fiduciary net position at December 31, 2019 was $1.51 billion, representing the amount available at year end to satisfy future pension benefit obligations.

## CHANGES IN FIDUCIARY NET POSITION

A summary of changes in fiduciary net position for the plan for the fiscal years ended December 31, 2019 and 2018 follows. This summary reflects changes in the sources (additions) and uses (deductions) of funds during these years; the net increase or decrease is the change in net position available for benefits since the end of the previous fiscal year. Details of changes in fiduciary net position during 2019 and 2018 can be found on page 8.

### Condensed Statement of Changes in Fiduciary Net Position

| | 2019 | 2018 | $ Change | % Change |
|---|---|---|---|---|
| **ADDITIONS:** | | | | |
| Employer contributions | $ 87,446,476 | $ 87,167,339 | $ 279,137 | 0.3% |
| Employee contributions | 21,182,425 | 21,032,601 | 149,824 | 0.7% |
| Total contributions | 108,628,901 | 108,199,940 | 428,961 | 0.4% |
| Net investment income (loss) | 224,904,568 | (103,313,150) | 328,217,718 | 317.7% |
| Net securities lending income | 254,312 | 307,088 | (52,776) | -17.2% |
| Total investment income (loss) | 225,158,880 | (103,006,062) | 328,164,942 | 318.6% |
| Other | 3,058 | 15,415 | (12,357) | -80.2% |
| Total additions | 333,790,839 | 5,209,293 | 328,581,546 | 6307.6% |
| **DEDUCTIONS:** | | | | |
| Retirement annuities | 167,480,736 | 159,561,047 | 7,919,689 | 5.0% |
| Refunds | 1,827,884 | 1,762,475 | 65,409 | 3.7% |
| Administrative expense | 1,642,209 | 1,685,479 | (43,270) | -2.6% |
| Total deductions | 170,950,829 | 163,009,001 | 7,941,828 | 4.9% |
| **INCREASE (DECREASE) IN NET POSITION** | 162,840,010 | (157,799,708) | 320,639,718 | 203.2% |
| Beginning net position | 1,343,994,268 | 1,501,793,976 | (157,799,708) | -10.5% |
| Ending net position | $ 1,506,834,278 | $ 1,343,994,268 | $ 162,840,010 | 12.1% |

## CHANGES IN FIDUCIARY NET POSITION (CONTINUED)

### Additions

Additions to fiduciary net position are accumulated through employer and employee contributions, and portfolio investment returns.

Total contributions for 2019 were $108.6 million, an increase of $429,000 or 0.4% from 2018. Per current statutes, the District annually levies a tax at a rate which will produce a sum that will be sufficient to meet the Fund's actuarially determined contribution requirement but shall not exceed an amount equal to employee contributions two years prior times 4.19. In 2014, the District established a Funding Policy to contribute annually an amount that over time will increase the ratio of Fund assets to accrued liabilities to 100% by the year 2050.

Employee contributions were $21.2 million in 2019, an increase of $150,000 or 0.7% from 2018. In general, total employee contributions vary with changes in employer payroll and plan modifications.

Net investment income in 2019 was higher than the prior year by $328.2 million, reflecting total returns of 18.3%, compared to (7.5)% in 2018. Positive returns were experienced in the U.S. and non-U.S. equity markets in 2019.

Investment income is a combination of unrealized gains (losses) on investments held at year end, realized gains (losses) on investment sales, and interest and dividend income earned during the year. Investment income is shown net of investment expenses which consist of fees charged by the Fund's investment managers, investment consultant, and custodian.

The Fund has participated in the securities lending program offered by the Bank of New York Mellon, the Fund's custodian bank, since 2007. The Fund also participates in the securities lending program offered by State Street Global Advisors (SSGA) with regards to their pooled Aggregate Bond Index Fund. For the year ended December 31, 2019, securities lending activities generated net income of approximately $254,000 which is a decrease of -17.2% from 2018.

## Changes in Fiduciary Net Position (continued)

### Deductions

Deductions from fiduciary net position are payments made by the Fund for benefits (to retirees, survivors, and disabled employees), refunds and administrative expenses. Total deductions in 2019 were $171.0 million compared to $163.0 million in 2018, an increase of $8 million, or 4.9%. The largest part of this change is due to an increase in benefit payments, primarily attributable to the 3% cost of living increase granted to annuitants each year. In addition, annuity benefits generally increase as deceased annuitants, who had lower benefits, are removed from the annuitant payroll, and new retirees with higher benefits are added.

## Return on Investments and Asset Allocation

The Fund's rate of return on investments in 2019 was 18.3% net of fees, slightly lower than the return of 18.8% on the Policy Index. The rate of return on investments in 2018 was (7.5) % net of fees, compared to the return of (6.9) % on the Policy Index. The Fund's target allocations at December 31, 2019 are listed below:

- 41% domestic equities
- 22% international equities
- 27% fixed income
- 10% core open-end real estate

## Current Asset Balances and Outlook

As of April 21, 2020, the Fund's invested assets had a fair market value of $1.22 billion, a decrease from the December 31, 2019 balance. The Fund manages risk by holding a diversified portfolio so that the impact of positive and negative market swings in the various sectors of the portfolio offset each other over time. With continual review of our target asset allocation and intermittent rebalancing, the Fund expects to achieve investment returns that outperform its policy index and actuarial assumed rate of return over the long run.

## Contact Information

This financial report is intended to provide our members and other interested parties with a general overview of the Metropolitan Water Reclamation District Retirement Fund's finances. Questions concerning this report or requests for additional information should be directed to the Metropolitan Water Reclamation District Retirement Fund at 111 East Erie Street, Suite 330, Chicago, Illinois 60611, by phone at (312) 751-3230, or by email at mohlerj@mwrdrf.org.

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND
## STATEMENT OF FIDUCIARY NET POSITION
## DECEMBER 31, 2019
(WITH COMPARATIVE AMOUNTS FOR PRIOR YEAR)

| | 2019 | 2018 |
|---|---|---|
| **Assets** | | |
| Cash | $ 243,150 | $ 2,131,153 |
| Receivables | | |
| Employer contributions | 87,319,000 | 87,281,000 |
| Due from broker | 38,456,244 | 111,904,867 |
| Accrued interest and dividends | 3,501,623 | 3,843,996 |
| Accounts receivables | 77,846 | 52,687 |
| Total receivables | 129,354,713 | 203,082,550 |
| Investments - at fair value | | |
| Equities | 546,409,484 | 470,319,672 |
| U.S. Government and government agency obligations | 91,856,633 | 91,161,132 |
| Corporate and foreign government obligations | 120,775,498 | 145,707,083 |
| Mutual and exchange traded funds | 96,417,811 | 89,341,330 |
| Pooled funds - equity | 250,570,901 | 215,174,230 |
| Pooled funds - fixed income | 165,734,711 | 152,257,239 |
| Limited partnership - real estate | 66,190,335 | 37,119,081 |
| Real estate investment trust | 40,681,532 | 26,778,440 |
| Short-term investment fund | 44,259,054 | 14,814,286 |
| | 1,422,895,959 | 1,242,672,493 |
| Securities lending collateral | 12,776,445 | 14,166,319 |
| Total investments | 1,435,672,404 | 1,256,838,812 |
| Total assets | 1,565,270,267 | 1,462,052,515 |
| **Liabilities and Net Position** | | |
| Liabilities | | |
| Accounts payable | 1,222,678 | 1,210,249 |
| Due to broker | 44,436,866 | 102,681,679 |
| Securities lending collateral | 12,776,445 | 14,166,319 |
| Total liabilities | 58,435,989 | 118,058,247 |
| Net position restricted for pension benefits | $ 1,506,834,278 | $ 1,343,994,268 |

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND
## STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
## YEAR ENDED DECEMBER 31, 2019
(WITH COMPARATIVE AMOUNTS FOR PRIOR YEAR)

| | 2019 | 2018 |
|---|---|---|
| Additions | | |
| Employer contributions | $ 87,446,476 | $ 87,167,339 |
| Employee contributions | 21,182,425 | 21,032,601 |
| Total contributions | 108,628,901 | 108,199,940 |
| Investment income | | |
| Net appreciation (depreciation) in fair value of investments | 204,118,604 | (122,365,473) |
| Interest | 7,666,016 | 8,317,990 |
| Dividend income | 18,275,337 | 15,758,513 |
| Total investment income (loss) | 230,059,957 | (98,288,970) |
| Less investment expenses | (5,155,389) | (5,024,180) |
| Net investment income (loss) | 224,904,568 | (103,313,150) |
| Securities lending income | | |
| Earnings | 431,648 | 555,840 |
| Less broker rebates | (104,883) | (164,155) |
| Less bank fees | (72,453) | (84,597) |
| Net securities lending income | 254,312 | 307,088 |
| Other | 3,058 | 15,415 |
| Total additions | 333,790,839 | 5,209,293 |
| Deductions | | |
| Annuities and benefits | | |
| Employee annuitants | 139,787,569 | 133,184,182 |
| Surviving spouse annuitants | 26,741,289 | 25,264,246 |
| Child annuitants | 137,000 | 143,000 |
| Ordinary disability benefits | 747,456 | 856,301 |
| Duty disability benefits | 67,422 | 113,318 |
| Total annuities and benefits | 167,480,736 | 159,561,047 |
| Refunds of employee contributions | 1,827,884 | 1,762,475 |
| Administrative expenses | 1,642,209 | 1,685,479 |
| Total deductions | 170,950,829 | 163,009,001 |
| Net increase (decrease) | 162,840,010 | (157,799,708) |
| Net position restricted for pension benefits | | |
| Beginning of year | 1,343,994,268 | 1,501,793,976 |
| End of year | $ 1,506,834,278 | $ 1,343,994,268 |

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND

## NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2019

### NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Metropolitan Water Reclamation District Retirement Fund (the Fund) is administered in accordance with Chapter 40 of the Illinois Compiled Statutes Act 5, Article 13.

**Financial Reporting Entity** - Accounting principles generally accepted in the United States of America define a financial reporting entity as consisting of the primary government and its component units for which the primary government is financially accountable. Financial accountability includes appointing a voting majority of a component unit's governing board, the ability of a primary government to impose its will on the component unit, or a potential for a component unit to provide specific financial benefits to or impose specific financial burdens on the primary government. The Fund has determined that no other outside entity meets the above criteria and, therefore, no other entity has been included as a component unit in the Fund's financial statements.

The Fund is considered a fiduciary fund of the Metropolitan Water Reclamation District of Greater Chicago (the District) and, as such, is included in the District's financial statements.

**Measurement Focus and Basis of Accounting** - The financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting. Employer contributions to the Fund are recognized as income pursuant to legal requirements as specified in the Illinois Compiled Statutes. Fund member (employee) contributions are recognized as additions in the period in which the contributions are due. Benefits and administrative expenditures are recognized when due and payable in accordance with the terms of the Plan.

**Investments** - The Fund reports investments at fair value, which generally represents reported market value as of the last business day of the year. The fair value of a financial instrument is the amount that would be received to sell that asset or paid to transfer that liability (exit price) in an orderly transaction between market participants at the measurement date.

**Estimates** - The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures in the financial statements. Actual results could differ from those estimates.

**Subsequent Events** - Subsequent events have been evaluated through April 28, 2020, which is the date the financial statements were available to be issued

## NOTE 2. FUND DESCRIPTION

The Fund is a single employer defined benefit plan, established by the Illinois State Legislature in 1931 to provide retirement annuities, death and disability benefits for certain employees of the District as well as Fund employees. The Fund is administered in accordance with 40 ILCS 5 of the Illinois Compiled Statutes.

The Board of Trustees is composed of a seven-member board, which consists of four member-elected employee Trustees, and three appointed Trustees, one of which is a retiree. State law authorizes the Board to make investments, pay benefits, hire staff and consultants and perform all necessary functions to carry out the provisions of the Illinois Compiled Statutes. The provisions of the Fund, including the defined benefits and the employer and employee contribution levels are established by those statutes and may be amended or terminated only by the Illinois State Legislature.

### Membership

At December 31, 2019, the Fund's membership consisted of:

| | |
|---|---|
| Active employees | 1,817 |
| Retirees and beneficiaries currently receiving benefits | |
| Retirees | 1,883 |
| Surviving spouses | 561 |
| Children | 21 |
| Total retirees and beneficiaries | 2,465 |
| Inactive employees entitled to benefits or a refund of contributions | 131 |
| Total members | 4,413 |

The Fund's active membership includes District employees, District Commissioners, and Retirement Fund staff and is referred to as "employees" in the financial statements and notes.

### Funding

Funding to meet the annuity and benefit obligations of the Fund is expected to come from employee contributions, employer contributions by the District and income earned on the Fund's investments.

Tier I employees (hired prior to January 1, 2011) are required to contribute 12% of their salary to the Fund since 2015; this contribution rate will remain in effect until such time as the Fund reaches a funding level of 90%. Tier II employees (hired on or after January 1, 2011) are required to contribute 9%. Contributions are collected as a payroll withholding. Employees made contributions of $21,182,425 for the year ended December 31, 2019.

## NOTE 2. FUND DESCRIPTION (CONTINUED)

### Funding (continued)

State statutes (40 ILCS 5) dictate that the District shall annually levy a tax upon all the taxable real property within the District at a rate which, when extended, will produce a sum that

(i) will be sufficient to meet the Fund's actuarially determined contribution requirement, but

(ii) shall not exceed an amount equal to the total employee contributions 2 years prior to the year for which the tax is levied, multiplied by 4.19 (the tax multiple). The actuarially determined contribution requirement is equal to the employer's normal cost plus the annual amount needed to amortize the unfunded liability by the year 2050 as a level percent of payroll. The funding goal is to attain a funded ratio of at least 90% by the year 2050, with the funded ratio being the ratio of the actuarial value of assets to the total actuarial liability.

Per the statutes, the tax shall be levied and collected in the same manner as the general taxes of the District.

The tax rate is based on an actuarially determined rate recommended by an independent actuary subject to the statute noted above. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by the plan participants during the year, with an additional amount to finance any net pension liability. For the year ended December 31, 2019, the District's contribution was 46.03% of covered payroll.

## NOTE 2. FUND DESCRIPTION (CONTINUED)

### Retirement Eligibility and Benefits

The following describe and reflect plan provisions as described in Article 13 of the Illinois Pension Code.

***Normal Retirement***
An employee whose duties include service of 120 days or more per year and has at least 5 years of service at age 60 is eligible to receive an undiscounted retirement benefit (if hired before January 1, 2011). An employee with at least 10 years of service at age 67 is eligible to receive an undiscounted retirement benefit (if hired on or after January 1, 2011).

The normal retirement benefit is 2.2% of the final average salary for each of the first 20 years of service and 2.4% for each year of service in excess of 20 years. The benefit shall not exceed 80% of final average salary.

***Early Retirement***
An employee hired before January 1, 2011 who attains age 55 (50 if hired on or before June 13, 1997) with at least 10 years of service is entitled to receive a minimum retirement benefit. An employee hired on or after January 1, 2011 who attains age 62 with at least 10 years of service is entitled to receive a minimum retirement benefit.

If the employee retires prior to the attainment of age 60, the normal retirement benefit computed shall be reduced by 0.5% for each full month the member is less than age 60 or service is less than 30 years whichever is less (if hired before January 1, 2011). If hired on or after January 1, 2011, the normal retirement benefit is reduced by 0.5% for each full month the member is less than age 67. There is no discount if the employee has 30 years of service.

***Alternate Provision for Commissioners***
Any participant Commissioner may elect to establish alternate credits for an alternative annuity. An additional contribution of 3% of salary is required for participation. In lieu of the normal retirement benefits any Commissioner who has elected to participate, has attained age 55 and has 6 years of service is eligible for an enhanced benefit formula.

## NOTE 2. FUND DESCRIPTION (CONTINUED)

### Retirement Eligibility and Benefits (continued)

***Surviving Spouse Annuity***
Upon an employee's death an annuity will be payable to the eligible surviving spouse. If an employee was hired before June 13, 1997, a spouse is immediately eligible for a surviving spouse annuity if married on the date of an employee's death, or if married on the employee's date of retirement and remained married until retiree's death. Dissolution of a marriage after retirement shall not divest the spouse of entitlement if the marriage was in effect for at least 10 years on the date of retirement.

If an employee was hired on or after June 13, 1997, a spouse is eligible for a surviving spouse annuity after 3 years of member's service, with the same conditions for marriage as described for members hired prior to June 13, 1997.

If an employee was hired before January 1, 2011, the surviving spouse annuity is equal to 60% of the employee's retirement benefit at the time of death, plus 1% for each year of total service, to a maximum of 85%. If hired on or after January 1, 2011, an eligible surviving spouse will be entitled to an annuity equal to 66 2/3% of the employee's retirement benefit at time of death.

Under certain conditions, an age discount applies to the surviving spouse annuity if the employee was hired after January 1, 1992 for employees in service before January 1, 2011.

***Children's Annuity***
Each unmarried child, until the attainment of age 18 (23 if full-time student), of a member that dies in service or of a former employee that dies with at least 10 years of service, is eligible for a monthly annuity of $500 per month (if one parent is living) and $1,000 per month (if neither parent is living) to a maximum total benefit of $5,000 per month for all children of the employee.

### Refunds

Upon withdrawal from service an employee hired before January 1, 2011, under age 55 (50 if hired on or before June 13, 1997), or age 55 (50 if hired on or before June 13, 1997) and less than age 60 with less than 20 years of service, or age 60 or over with less than 5 years of service, is eligible for a refund of accumulated employee contributions without interest upon request.

An employee hired on or after January 1, 2011, is eligible for a refund of accumulated employee contributions without interest if under age 62 regardless of service, or if less than 10 years of service regardless of age on withdrawal.

Upon receipt of a refund, the member forfeits rights to benefits from the Fund. Refund repayment provisions may apply in certain cases.

## NOTE 2. FUND DESCRIPTION (CONTINUED)

### Retirement Eligibility and Benefits (continued)

### Disability Benefits

***Duty Disability***
An employee incurring injury or illness arising out of employment with the District and compensable under the Workers Compensation Act or the Occupational Disease Act may apply for duty disability benefits administered by the Fund. Duty disability benefits are 75% of the salary earned on the date of disability, less the amount paid by Worker's Compensation. The benefit is 50% of salary if disability resulted from a physical defect or disease that existed at the time injury was sustained. Benefits are payable during the period of disablement, but not beyond attainment of age 65. If the disability occurs at age 60 or older, benefits are payable for a maximum of 5 years.

***Ordinary Disability***
An employee who becomes disabled due to any cause other than illness or injury incurred in the performance of duty may apply for ordinary disability benefits administered by the Fund. Ordinary disability benefits provide 50% of employee's earnable salary at the date of disability, for a maximum period of the lesser of 25% of the employee's actual service prior to disablement or 5 years.

## NOTE 3. PENSION LIABILITY OF THE DISTRICT

### Net Pension Liability

The components of the net pension liability of the District as of December 31, 2019, were as follows:

| | |
|---|---|
| Total pension liability | $ 2,653,769,022 |
| Fund fiduciary net position | (1,506,834,278) |
| District's net pension liability | $ 1,146,934,744 |
| Fund fiduciary net position as a percentage of the total pension liability | 56.78% |

See the schedule of changes in the District's net pension liability and related ratios on page 31 of the required supplementary information for additional information related to the funded status of the Fund.

**NOTE 3. PENSION LIABILITY OF THE DISTRICT (CONTINUED)**

## Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2019, using the following actuarial methods and assumptions, applied to all periods included in the measurement.

| Actuarial methods and assumptions: | |
|---|---|
| Valuation date | 12/31/19 |
| Cost method | Entry age normal |
| Asset valuation method | Five Year Smoothing Method |
| Inflation | 2.5% |
| Salary increases | Varies by service |
| Investment rate of return | 7.25% |
| Postretirement annuity increases | Tier 1 participants – 3.00%<br>Tier 2 participants – 1.25% |

Healthy and disabled lives mortality rates were based on the RP-2000 Combined Healthy Mortality Table with Generational Mortality Improvements (Scale AA).

The actuarial assumptions used in the December 31, 2019 valuation were based on the results of an actuarial experience study conducted by Foster & Foster, Inc. dated September 2018.

## Discount Rate

The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that District contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the Fund's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments of 7.25% was applied to all periods of projected benefit payments to determine the total pension liability.

## NOTE 3. PENSION LIABILITY OF THE DISTRICT (CONTINUED)

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

The following is a sensitivity analysis of the net pension liability to changes in the discount rate. The table below presents the pension liability of the District calculated using the discount rate of 7.25% as well as what the District's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.25%) or 1 percentage point higher (8.25%) than the current rate:

| | 1% Decrease (6.25%) | Current Discount Rate (7.25%) | 1% Increase (8.25%) |
|---|---|---|---|
| District's net pension liability | $ 1,446,814,051 | $ 1,146,934,744 | $ 894,253,229 |

## NOTE 4. DEPOSITS WITH FINANCIAL INSTITUTIONS

Custodial Credit Risk

Custodial credit risk for deposits with financial institutions is the risk that in the event of a bank failure, the Fund's deposits may not be returned to it. The Fund does not have a formal policy for custodial credit risk. The Fund's deposits consist of monies held checking and money market accounts. The Fund places its cash with financial institutions deemed to be creditworthy. Balances are insured by FDIC up to $250,000 per financial institution. As of December 31, 2019, the Fund had approximately $20,000 of uninsured, uncollateralized deposits with financial institutions.

## NOTE 5. INVESTMENTS

### Investment Policy

The Illinois Statutes prescribe the "prudent person rule" as the Fund's investment authority, effective August 31, 2007. This rule requires the Fund to make investments with the care, skill, prudence and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an entity of like character with like aims. Within the "prudent person" framework, the Board of Trustees adopts investment guidelines for the Fund's investment managers which are included within their respective Investment Management Agreements. The Fund's adopted asset allocation policy is 41% domestic equities, 22% international equities, 27% fixed income and 10% core open-end real estate. During the year ended December 31, 2019, the Fund revised its investment policy to increase the core open-end real estate allocation from 5% to 10% while reducing the fixed income and equity allocations from 30% to 27% and 65% to 63%, respectively.

### Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments (i.e. the actuarial assumed investment rate of return of 7.25%) was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major class.

These ranges are combined to produce the long term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2019, as reported by the Fund's investment consultant, are summarized in the following table:

| Asset Class | Target Allocation % | Long-Term Expected Real Rate of Return |
|---|---|---|
| Domestic equity | 41.0% | 5.5% |
| International equity | 22.0% | 5.7% |
| Fixed income | 27.0% | 0.7% |
| Real Estate Funds | 10.0% | 4.1% |
| Total investments | 100.0% | |
| | | |
| Inflation rate of investment advisor | | 2.25% |

## NOTE 5. INVESTMENTS (CONTINUED)

### Annual Money-Weighted Rate of Return

The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 18.25% for the year ended December 31, 2019. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### Investment Risk

Generally accepted accounting principles specify the disclosure requirements for deposits that are not covered by depository insurance and investment securities that are uninsured and are not registered in the name of the government or a trust agent. By statute, all investments are held in the name of the Metropolitan Water Reclamation District Retirement Fund.

*Custodial Credit Risk*

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Fund will not be able to recover the value of its investments or collateral securities in the possession of an outside party.

As of December 31, 2019, the Fund had minimal exposure to custodial credit risk since all investments were insured, registered, and/or held in the Fund's name.

*Concentration of Investment Risk*

No investments that represent 5% or more of the Fund's net position restricted for pension benefits were identified.

*Interest Rate Risk*

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Investments held for longer periods are subject to increased risk of adverse interest rate changes. One strategy to manage exposure to interest rate risk is to purchase a combination of short-term and long-term investments, while considering cash flow needs of the Fund. The Fund does not maintain an investment policy relative to interest rate risk. However, the Board of Trustees recognizes that its investments are subject to short-term volatility and their goal is to maximize total return within prudent risk parameters.

## NOTE 5. INVESTMENTS (CONTINUED)

### Investment Risk (continued)

*Interest Rate Risk (continued)*

The following table presents a summarization of the Fund's debt investments at December 31, 2019, using the segmented time distribution method:

| Type of Investment | Maturity | Fair Value | Percentage |
|---|---|---|---|
| U.S. Government and | | | |
| government agency obligations | < 1 year | $ 2,635,774 | 2.9% |
| | 1 - 5 years | 16,674,300 | 18.1% |
| | 5 - 10 years | 12,600,653 | 13.7% |
| | Over 10 years | 59,945,906 | 65.3% |
| | | $ 91,856,633 | 100.0% |
| Corporate and foreign | | | |
| government obligations | < 1 year | $ 1,354,951 | 1.1% |
| | 1 - 5 years | 38,466,968 | 31.9% |
| | 5 - 10 years | 26,565,575 | 22.0% |
| | Over 10 years | 54,388,004 | 45.0% |
| | | $ 120,775,498 | 100.0% |
| Pooled funds - fixed income | 5-10 years | $ 165,734,711 | 100.0% |
| Short-term investment fund | < 1 year | $ 44,259,054 | 100.0% |

## NOTE 5. INVESTMENTS (CONTINUED)

### Investment Risk (continued)

*Credit Risk*

Credit risk is defined as the risk that the issuer of a debt security will not pay its par value upon maturity. The Illinois Statutes prescribe the "prudent person rule" as the Fund's investment authority and within the "prudent person" framework, the Board of Trustees adopts investment guidelines that consider credit risk for the Fund's investment managers which are included within their respective investment Management Agreements.

Quality ratings are as provided by Standard & Poor's. For the pooled funds - fixed income investments an average credit quality rating is provided by Bank of America Merrill Lynch and Bloomberg Barclays. The following table presents a summarization of the credit quality ratings of the holdings within the investments at December 31, 2019:

| Type of Investment | Rating | Fair Value | Percentage |
|---|---|---|---|
| U.S. Government and government agency obligations | AA | $ 90,607,056 | 98.6% |
| | Not Rated | 1,249,577 | 1.4% |
| | | $ 91,856,633 | 100.0% |
| Corporate and foreign government obligations | AAA | $ 6,853,499 | 5.7% |
| | AA | 17,840,512 | 14.8% |
| | A | 46,520,681 | 38.5% |
| | BBB | 33,394,667 | 27.7% |
| | BB | 1,978,704 | 1.6% |
| | B | 611,852 | 0.5% |
| | CC | 12,459 | 0.0% |
| | Not Rated | 13,563,124 | 11.2% |
| | | $ 120,775,498 | 100.0% |
| Pooled funds - fixed income | AAA | $ 153,332,069 | 92.5% |
| | BB | 12,402,642 | 7.5% |
| | | $ 165,734,711 | 100.0% |
| Short-term investment fund | Not Rated | $ 44,259,054 | 100.0% |

## NOTE 5. INVESTMENTS (CONTINUED)

### Investment Risk (continued)

*Foreign Currency Risk*

Foreign currency risk is the risk of loss arising from changes in currency exchange rates. All foreign currency-denominated investments held by the Fund are in equities, fixed income and foreign cash. The Fund's exposure to foreign currency risk at December 31, 2019 is presented as follows:

| Type of Investment | Fair Value | Percentage |
|---|---|---|
| Equities | | |
| Australian dollar | $ 7,641,425 | 1.4% |
| British pound sterling | 24,928,859 | 4.6% |
| Canadian dollar | 4,795,262 | 0.9% |
| Danish krone | 2,598,258 | 0.5% |
| European euro | 35,640,039 | 6.5% |
| Hong kong dollar | 4,034,251 | 0.7% |
| Israeli shekel | 884,308 | 0.2% |
| Japanese yen | 41,998,485 | 7.7% |
| New Zealand dollar | 1,684,227 | 0.3% |
| Norwegian krone | 2,841,836 | 0.5% |
| Singapore dollar | 1,898,999 | 0.3% |
| Swedish krona | 5,022,939 | 1.0% |
| Swiss franc | 8,484,589 | 1.5% |
| U.S. dollar | 403,956,007 | 73.9% |
| Total equities | $ 546,409,484 | 100.0% |
| Corporate and foreign government obligations | | |
| U.S. dollar | $ 120,775,498 | 100.0% |
| Total corporate and foreign government obligations | $ 120,775,498 | 100.0% |

## NOTE 5. INVESTMENTS (CONTINUED)

### Investment Risk (continued)

*Foreign Currency Risk (continued)*

| Type of Investment | Fair Value | Percentage |
|---|---|---|
| Short-term investment funds | | |
| Australian dollar | $ 64,944 | 0.2% |
| British pound sterling | 65,109 | 0.2% |
| Canadian dollar | 156,393 | 0.4% |
| Danish krone | 14,708 | 0.0% |
| European euro | 94,494 | 0.2% |
| Hong kong dollar | 44,580 | 0.1% |
| Israeli shekel | 15,655 | 0.0% |
| Japanese yen | 11,094 | 0.0% |
| New Zealand dollar | 7,923 | 0.0% |
| Norwegian krone | 25,983 | 0.1% |
| Singapore dollar | 16,438 | 0.0% |
| South African rand | 1 | 0.0% |
| Swedish krona | 14,553 | 0.0% |
| Swiss franc | 10,975 | 0.0% |
| U.S. dollar | 43,716,204 | 98.8% |
| Total short-term investment fund | $ 44,259,054 | 100.0% |

## NOTE 6. WHEN-ISSUED TRANSACTIONS

The Fund may purchase securities on a when-issued basis, that is, obligate itself to purchase securities with delivery and payment to occur at a later date. At the time the Fund enters into a commitment to purchase the security, the transaction is recorded at the purchase price which equals fair value. The value at delivery may be more or less than the purchase price. No interest accrues to the Fund until delivery and payment takes place. As of December 31, 2019, the Fund contracted to acquire securities on a when-issued basis with a total principal amount of approximately $1,249,577.

## NOTE 7. FAIR VALUE MEASUREMENTS

GASB Statement No. 72, *Fair Value Measurement and Application*, established a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described as follows:

<u>Basis of Fair Value Measurement</u>

| | |
|---|---|
| Level 1 | Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities |
| Level 2 | Quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly |
| Level 3 | Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable |

The Fund categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The Fund has the following recurring fair value measurements as of December 31, 2019.

| | | Fair Value Measurements at 12/31/2019 Using | | |
|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| **Investments by fair value level** | | | | |
| Equities | $ 546,409,484 | $ 546,409,484 | $ - | $ - |
| U.S. Government and government agency obligations | 91,856,633 | 42,370,452 | 49,486,181 | - |
| Corporate and foreign government obligations | 120,775,498 | - | 120,775,498 | - |
| Mutual and exchange traded funds | 96,417,811 | 96,417,811 | - | - |
| Total investments by fair value level | 855,459,426 | $ 685,197,747 | $ 170,261,679 | $ - |
| **Investments measured at net asset value** | 567,436,533 | | | |
| Total investments at fair value | $ 1,422,895,959 | | | |

## NOTE 7. FAIR VALUE MEASUREMENTS (CONTINUED)

Level 1 Measurements

Equities, mutual and exchanged traded funds, and U.S. Treasury securities are traded in active markets on national and international securities exchanges and are valued at closing prices on the last business day of the period presented.

Level 2 Measurements

U.S. Government and government agency obligations and corporate and foreign government obligations are generally valued by benchmarking model-derived prices to quoted market prices and trade data for identical or comparable securities. To the extent that quoted prices are not available, fair value is determined based on a valuation model that include inputs such as interest rate yield curves and credit spreads. Securities traded in markets that are not considered active are valued based on quoted market prices, broker to dealer quotations, or alternative pricing sources with reasonable levels of price transparency. Securities that trade infrequently and therefore have little or no price transparency are valued using the investment manager's best estimates.

The valuation methods for investments measured at net asset value (NAV) are presented on the following table.

| | Fair Value | Unfunded Commitments | Redemption Frequency (If Eligible) | Redemption Notice Period |
|---|---|---|---|---|
| Investments measured at net asset value: | | | | |
| Pooled funds - equity (1) | | | | |
| SSGA S&P 500 Flagship Fund | $ 118,067,790 | $ - | Daily | N/A |
| SSGA S&P Midcap Index Fund | 59,864,860 | - | Daily | N/A |
| SSGA MSCI ACWI Fund | 72,638,251 | - | 2 times monthly | N/A |
| Pooled funds - fixed income (2) | | | | |
| SSGA U.S. Aggregate Bond Index | 153,332,069 | - | Daily | N/A |
| Neuberger Berman High Income Fund | 12,402,642 | - | Monthly | N/A |
| Limited partnership - real estate (3) | | | | |
| Trumbull Property Fund | 66,190,335 | - | Quarterly | 60 days |
| Real estate investment trust (4) | | | | |
| RREEF America REIT II | 40,681,532 | 12,000,000 | Quarterly | 45 days |
| Short-term investment fund (5) | | | | |
| BNY Mellon EB Temporary Investment Fund | 44,259,054 | - | Daily | N/A |
| Total investments measured at net asset value | $ 567,436,533 | | | |

## NOTE 7. FAIR VALUE MEASUREMENTS (CONTINUED)

(1) Pooled funds - equity - The investment objective of these investments is to track the performance of the S&P 500, S&P MidCap 500 and MSCI ACWI ex USA indexes over the long term. The fair value of the investments in these funds has been determined using the NAV per share of the investments.

(2) Pooled funds - fixed income - The investment objective of the U.S. Aggregate Bond Index is to track the performance of the Barclays U.S. Aggregate Bond Index over the long term. The investment objective of the High Income Fund is to achieve an attractive total return of income and capital appreciation by investing primarily in high yield fixed income securities and bank loan interests, including secured and unsecured bank loans. The fair value of the investments in these funds has been determined using the NAV per share of the investments.

(3) Limited partnership - real estate - The partnership's investment objective is to actively manage a core portfolio of primarily equity real estate investments located in the United States. The fair value of the investments in these funds has been determined using the NAV per share of the investments.

(4) Real estate investment trust - The Fund's investment objective is to generate attractive, predictable investment returns from a target portfolio of low-risk equity investments in income-producing real estate while maximizing the total return. The fair value of the investments in these funds has been determined using the NAV per share of the investments.

(5) Short-term investment - This investment's objective is to invest in short-term investments of high quality and low risk to protect capital while achieving investment returns. The fair value of the investments in these funds has been determined using the NAV per share of the investments.

## NOTE 8. DERIVATIVES

The Fund uses forward foreign currency exchange contracts to manage portfolio risk and to facilitate international portfolio trading.

A derivative security is a financial contract whose value is based on, or "derived" from, a traditional security, an asset, or a market index. Derivative instruments include forward contracts as part of the Fund's portfolio. Derivative instruments are valued using pricing models based on the prevailing forward exchange rate of the underlying currencies taking into account the counterparties' creditworthiness.

Derivative transactions involve, to varying degrees, credit risk, interest rate risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to the previously agreed upon terms. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Market risk is the possibility that a change in interest or currency rates will cause the value of a financial instrument to decrease or become costlier to settle. Due to the purpose and short-term nature of the forward currency contracts these risks are considered to be minimal.

Forward contracts are used to hedge against fluctuations in foreign currency-denominated assets used primarily in portfolio trade settlements. These contracts are a cash contract in which a seller agrees to deliver a specific cash commodity to a buyer sometime in the future. Forward agreements are subject to the creditworthiness of the counterparties, which are principally large financial institutions. Forward currency contracts are reported at fair value in due to broker and due from broker on the statement of fiduciary net position. The gain or loss on forward currency contracts is recognized and recorded on the statement of changes in fiduciary net position as part of investment income. The forward currency contracts are short term in nature, typically ranging from one month to three months.

The deferred outflows of resources and deferred inflows of resources of the hedging derivatives are immaterial and not included in these financial statements.

At December 31, 2019, the Fund's assets and liabilities included the following forward foreign currency exchange contract balances which are included in due from broker and due to broker:

| | |
|---|---|
| Forward Foreign Currency Exchange Contract receivables | $ 37,855,236 |
| Forward Foreign Currency Exchange Contract payables | $ 37,815,975 |

## NOTE 9. SECURITIES LENDING

State Statutes and the investment policy permit the Fund to lend its securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The Bank of New York Mellon, the Fund's custodian, requires collateral in the form of cash, U.S. Government obligations and irrevocable letters of credit or other securities worth at least 102% of the lent securities' market value, and for international securities, collateral worth at least 105%. The contract with the Fund's custodian requires it to indemnify the Fund if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the Fund for income distributions by the securities issuers while the securities are out on loan.

The relationship between the maturities of the investment pool and the Fund's loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the Fund cannot determine. The Fund cannot pledge or sell collateral securities without borrower default; as such, the collateral security or non-cash collateral is not reported in the financial statements. The average term of securities loaned was 127 days for 2019; however, all securities loans can be terminated on demand by either the Fund or the borrower. Cash collateral is invested in the lending agent's short-term investment pool, which at year-end has a weighted average maturity of 2 days.

Although the Fund's securities lending activities are collateralized as described above, they involve both market and credit risk. In this context, market risk refers to the possibility that the borrower of securities will be unable to collateralize the loan upon a sudden material change in the fair value of the loaned securities or the collateral. Credit risk refers to the possibility that counterparties involved in the securities lending program may fail to perform in accordance with the terms of their contracts.

Indemnification deals with the situation in which a client's securities are not returned due to the insolvency of a borrower. The contract with the lending agent requires it to indemnify the Fund if borrowers fail to return the securities or fail to pay the Fund for income distributions by the issuers of securities while the securities are on loan.

During 2019, there were no losses due to default of a borrower or the lending agent.

## NOTE 9. SECURITIES LENDING (CONTINUED)

A summary of securities loaned at fair value as of December 31, 2019 is as follows:

| | |
|---|---|
| Securities loaned - backed by cash collateral | |
| U.S. and international equities | $ 10,535,606 |
| Exchanged traded funds | 1,560,598 |
| Corporate bonds | 426,265 |
| Total securities loaned - backed by cash collateral | 12,522,469 |
| Securities loaned - backed by non-cash collateral | |
| U.S. and international equities | 60,663,167 |
| Exchanged traded funds | 775,278 |
| Corporate bonds | 136,388 |
| Total securities loaned - backed by non-cash collateral | 61,574,833 |
| Total | $ 74,097,302 |

As of December 31, 2019, the fair value (carrying amount) of loaned securities was $74,097,302. As of December 31, 2019, the fair value (carrying amount) of cash collateral received by the Fund was $12,776,445. The cash collateral is included as an asset and a corresponding liability on the accompanying statement of fiduciary net position. As of December 31, 2019, the fair value (carrying amount) of noncash collateral received by the Fund was $62,957,232.

The Fund also participates in the securities lending programs offered by State Street Global Advisors (SSGA) with regards to their pooled funds. Securities lending income earned by SSGA serves as a credit to quarterly management fees, and any remainder is used for purchasing additional units in the SSGA fixed income pooled fund.

## NOTE 10. PRONOUNCEMENTS ISSUED BUT NOT YET ADOPTED

In March 2017, GASB issued Statement No. 87, *Leases*. Statement No. 87 improves accounting and financial reporting for leases by governments and increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Statement No. 87 is effective for the Fund's fiscal year ending December 31, 2020.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. The objectives of this Statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. If it applies, Statement No. 89 is effective for the Fund's fiscal year ending December 31, 2020.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations.* The objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. If it applies, Statement No. 91 is effective for the Fund's fiscal year ending December 31, 2021.

In January 2020, GASB issued Statement No. 92, *Omnibus 2020.* The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB Statements. If it applies, Statement No. 92 is effective for the Fund's fiscal year ending December 31, 2021.

In March 2020, GASB issued Statement No. 93, *Replacement of Interbank Offered Rates.* The objective of this Statement is to address accounting and financial reporting implications that result from the replacement of the Interbank Offered Rate (IBOR) - most notably, the London Interbank Offered Rate (LIBOR). If it applies, Statement No. 93 is effective for the Fund's fiscal year ending December 31, 2021, except for paragraph 11b which is effective for the Fund's fiscal year ending December 31, 2022.

The Fund's management has not yet determined the effect, if any; these Statements will have on the Fund's financial statements.

## NOTE 11. SUBSEQUENT EVENTS

As a result of the spread of the COVID-19 coronavirus, economic uncertainties have arisen which are likely to negatively impact the Fund though the potential impact and duration is unknown as of the date the financial statements were available to be issued.

The Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in March 2020. The CARES Act is an approximately $2 trillion emergency economic stimulus package in response to the coronavirus outbreak, which among other things contains numerous tax provisions. Some of these tax provisions are expected to be effective retroactively for years ending before the date of enactment. The Fund is currently evaluating the impact of the CARES Act on its financial position, results of operations and cash flows.

# REQUIRED SUPPLEMENTARY INFORMATION

Required supplementary information includes financial information and disclosures that are required by the GASB but are not considered a part of the basic financial statements. Such information includes:

- Schedule of Changes in the District's Net Pension Liability and Related Ratios
- Schedule of District Contributions and Related Note
- Schedule of Investment Returns

# METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND

## REQUIRED SUPPLEMENTARY INFORMATION

## SCHEDULE OF CHANGES IN THE DISTRICT'S NET PENSION LIABILITY AND RELATED RATIOS

### LAST SIX FISCAL YEARS

**Metropolitan Water Reclamation District Retirement Fund**
**Required Supplementary Information**
**Schedule of Changes in the District's Net Pension Liability and Related Ratios**
Last Six Fiscal Years

| | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|
| Total Pension liability | | | | | | |
| Service cost | $ 33,039,382 | $ 32,212,530 | $ 32,370,187 | $ 32,057,687 | $ 32,228,341 | $ 31,602,226 |
| Interest | 183,916,142 | 182,881,416 | 179,038,283 | 173,861,700 | 168,530,178 | 163,338,376 |
| Differences between expected and actual experience | 17,732,815 | 12,157,757 | (1,990,761) | 13,813,742 | 14,421,984 | 10,861,109 |
| Changes of assumptions | - | 35,593,015 | - | - | - | - |
| Benefit payments, including refunds of employee contributions | (169,308,620) | (161,323,522) | (154,713,043) | (147,336,015) | (140,509,756) | (133,897,848) |
| Net change in total pension liability | 65,379,719 | 101,521,196 | 54,704,666 | 72,397,114 | 74,670,747 | 71,903,863 |
| Total pension liability | | | | | | |
| Beginning of year | 2,588,389,303 | 2,486,868,107 | 2,432,163,441 | 2,359,766,327 | 2,285,095,580 | 2,213,191,717 |
| End of year | $ 2,653,769,022 | $ 2,588,389,303 | $ 2,486,868,107 | $ 2,432,163,441 | $ 2,359,766,327 | $ 2,285,095,580 |
| Change in fiduciary net position | | | | | | |
| Contributions - employer | $ 87,446,476 | $ 87,167,339 | $ 89,858,224 | $ 80,259,713 | $ 71,041,361 | $ 73,906,168 |
| Contributions - employee | 21,182,425 | 21,032,601 | 20,839,829 | 20,830,779 | 21,385,212 | 18,974,954 |
| Net investment income (loss) | 225,158,880 | (103,006,062) | 194,821,459 | 113,585,872 | (1,427,839) | 81,600,566 |
| Benefit payments, including refunds of employee contributions | (169,308,620) | (161,323,522) | (154,713,043) | (147,336,015) | (140,509,756) | (133,897,848) |
| Administrative expense | (1,642,209) | (1,685,479) | (1,613,976) | (1,502,639) | (1,659,917) | (1,406,507) |
| Other | 3,058 | 15,415 | 3,100 | 107,175 | 28,817 | 4,460 |
| Net change in fiduciary net position | 162,840,010 | (157,799,708) | 149,195,593 | 65,944,885 | (51,142,122) | 39,181,793 |
| Net position restricted for pension benefits | | | | | | |
| Beginning of year | 1,343,994,268 | 1,501,793,976 | 1,352,598,383 | 1,286,653,498 | 1,337,795,620 | 1,298,613,827 |
| End of year | $ 1,506,834,278 | $ 1,343,994,268 | $ 1,501,793,976 | $ 1,352,598,383 | $ 1,286,653,498 | $ 1,337,795,620 |
| District's net pension liability | $ 1,146,934,744 | $ 1,244,395,035 | $ 985,074,131 | $ 1,079,565,058 | $ 1,073,112,829 | $ 947,299,960 |
| Fund fiduciary net position as a percentage of the total pension liability | 56.78% | 51.92% | 60.39% | 55.61% | 54.52% | 58.54% |
| Covered payroll | $ 189,961,010 | $ 187,849,708 | $ 184,385,188 | $ 182,640,163 | $ 177,792,309 | $ 176,183,941 |
| Employer's net pension liability as a percentage of covered payroll | 603.77% | 662.44% | 534.25% | 591.09% | 603.58% | 537.68% |

This schedule will show information for ten years as the additional years' information becomes available.

**Metropolitan Water Reclamation District Retirement Fund**

**Required Supplementary Information**

**Schedule of District Contributions and Related Note**

Last Ten Years

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| Actuarially Determined Contribution (ADC) | $ 61,872,925 | $ 69,393,171 | $ 74,828,844 | $ 68,414,142 | $ 64,477,662 | $ 62,603,576 | $ 64,596,066 | $ 65,727,912 | $ 64,988,583 | $ 74,279,999 |
| Contributions in Relation to the ADC | 29,917,793 | 37,379,137 | 65,097,835 | 92,944,381 | 73,906,168 | 71,041,361 | 80,259,713 | 89,858,224 | 87,167,339 | 87,446,476 |
| Contribution deficiency (excess) | $ 31,955,132 | $ 32,014,034 | $ 9,731,009 | $ (24,530,239) | $ (9,428,506) | $ (8,437,785) | $ (15,663,647) | $ (24,130,312) | $ (22,178,756) | $ (13,166,477) |
| Covered payroll | $ 174,485,734 | $ 164,275,424 | $ 163,816,934 | $ 169,375,857 | $ 176,183,941 | $ 177,792,309 | $ 182,640,163 | $ 184,385,188 | $ 187,849,708 | $ 189,961,010 |
| Contributions as a percentage of covered payroll | 17.15% | 22.75% | 39.74% | 54.87% | 41.95% | 39.96% | 43.94% | 48.73% | 46.40% | 46.03% |

**NOTE TO SCHEDULE:**

Valuation date:
Actuarially determined contribution rates are calculated as of December 31, one year prior to the fiscal year in which contributions are reported.

Methods and assumptions used to determine contributions:

| | |
|---|---|
| Actuarial cost method | Entry Age Normal |
| Amortization method | Level percent of pay, closed. |
| Remaining amortization period | 32 years remaining amortization as of 1/1/19. |
| Actuarial asset method | Assets are valued with an adjustment to expected assets to uniformly spread actuarial investment gains and losses (measured by the difference in actual market value investment return and expected market value investment return) over a five year period. |
| Investment rate of return | 7.25% per year compounded annually, net of investment related expenses. |
| Inflation | 2.5% per year |
| Salary increases | Vary by service. |
| Payroll growth | 3.0% per year |
| Termination rates | Termination rates vary by age and gender. |
| Retirement rates | Retirement rates are based on the most recent experience analysis and vary by age of member. |

See Independent Auditors' Report.

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND
### REQUIRED SUPPLEMENTARY INFORMATION
### SCHEDULE OF INVESTMENT RETURNS
LAST FIVE FISCAL YEARS

| | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|---|
| Annual money-weighted rate of return, net of investment expense | 18.25% | -7.44% | 15.62% | 9.43% | -0.15% | 6.67% |

This schedule will show information for ten years as the additional years' information becomes available.

See Independent Auditors' Report

# SUPPLEMENTARY INFORMATION

Other supplementary information includes financial information and disclosures that are not required by GASB and are not considered a part of the basic financial statements. Such information includes:

- Schedule of Administrative Expenses
- Schedule of Investment Expenses
- Schedule of Payments to Consultants
- Postemployment Healthcare Disclosure

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND
### SUPPLEMENTARY INFORMATION

### Schedule of Administrative Expenses

Year Ended December 31, 2019
(with comparative amounts for prior year)

| | 2019 | 2018 |
|---|---|---|
| Salaries and wages | | |
| Regular employees | $ 1,112,821 | $ 1,055,482 |
| Employee benefits | 178,786 | 166,632 |
| Professional services | | |
| Actuarial | 54,850 | 64,000 |
| Legal and lobbyist | 51,583 | 70,324 |
| Audit and state regulatory fees | 40,000 | 40,000 |
| Public stenographer | 11,508 | 9,577 |
| Medical | 8,495 | 10,040 |
| Investigation | 1,652 | 1,608 |
| Printing and publication | 5,085 | 4,204 |
| Postage | 11,646 | 12,863 |
| Office supplies and furniture | 4,477 | 6,398 |
| Travel | 4,035 | 3,758 |
| Maintenance and repair | 1,970 | 277 |
| Payments to consultants | 91,496 | 187,746 |
| Membership dues, conference fees, subscriptions and publications | 7,479 | 8,160 |
| Computer hardware and software | 16,795 | 10,618 |
| Insurance | 23,118 | 21,536 |
| Miscellaneous | 16,413 | 12,256 |
| Total administrative expenses | $ 1,642,209 | $ 1,685,479 |

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND
## SUPPLEMENTARY INFORMATION

### Schedule of Investment Expenses

Year ended December 31, 2019
(with comparative amounts for prior year)

| | 2019 | 2018 |
|---|---|---|
| Investment manager fees | $ 4,811,132 | $ 4,672,015 |
| Custodian fees | 168,424 | 182,165 |
| Investment consulting fees | 175,833 | 170,000 |
| Investment expenses | $ 5,155,389 | $ 5,024,180 |

### Schedule of Payments to Consultants

Year Ended December 31, 2019
(with comparative amounts for prior year)

| Firm / Individual | Services | 2019 | 2018 |
|---|---|---|---|
| Novitas (formerly JC Consulting Group, Inc.) | Benefit system maintenance and development | $ 42,569 | $ 153,300 |
| Elizabeth Cautadella | Benefits consultant | 35,277 | 34,302 |
| Crestwood Associates | MS Dynamics upgrade | 4,972 | - |
| Best Case Technologies | Website consultant | 144 | 144 |
| Nancy Maize | Organizational Consultant | 2,481 | - |
| Daniel W. Ryan | Organizational Consultant | 3,688 | - |
| Omnificent Systems, LLC | IT Services | 1,500 | - |
| HR Boost, LLC | HR Consulting | 865 | - |
| Total payments to consultants | | $ 91,496 | $ 187,746 |

## METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND
## SUPPLEMENTARY INFORMATION

### POSTEMPLOYMENT HEALTHCARE DISCLOSURE

The Fund does not provide any health insurance supplement. Employee and survivor annuitants may elect coverage under the insurance programs offered through the Metropolitan Water Reclamation District of Greater Chicago (the District), the former employer of employee annuitants. The District offers these programs to retirees on a year-by-year basis. Retirees are not guaranteed coverage under the District's insurance programs. The Fund withholds the prescribed annuitant portion of the monthly medical premium and forwards it in total to the District, which subsidizes the medical coverage. The District provides full disclosure in its Comprehensive Annual Financial Report.

# INVESTMENT SECTION

BNY MELLON

June 22, 2020

To the Board of Trustees of the Metropolitan Water Reclamation District Retirement Fund:

The Bank of New York Mellon as custodian of the assets of the Metropolitan Water Reclamation District Retirement Fund (fund) held by it in a custodial account has provided annual accounting statements to the fund which represents The Bank of New York Mellon's record of investments, receipts, disbursements, purchases and sales of securities and other transactions pertinent to the custody accounts for the period of January 1, 2019 through December 31, 2019.

In addition to the custody of assets in the custody accounts, and pursuant to the Master Custody Agreement among the Board of Trustees and The Bank of New York Mellon dated May 2, 2107 and the securities lending contract dated June 27, 2007 the Bank of New York Mellon provides the following services:

- Maintain safe custody of the assets owned by MWRD Retirement Fund.
- Settle trades in accordance with manager instructions.
- Collect dividends and registered interest payments.
- Provide proxy processing and corporate action services.
- Sweep cash balances of manager accounts in end of day sweep vehicle.
- Provide MWRD with monthly and annual audited investment accounting statements.
- Provide Periodic reports summarizing the investment activity of the Fund's assets.
- Administer a securities lending program for MWRD Retirement Fund's assets and invest cash collateral received from such loans.

Sincerely,

Jon Bangor

Jon Bangor
Relationship Manager
412-234-8544

BNY Mellon Center, 500 Grant Street Suite 151-0625, Pittsburgh, PA 15258
bnymellon.com

To the Board of Trustees:

Marquette Associates is the independent investment consultant for the Metropolitan Water Reclamation District Retirement Fund (MWRDRF). Marquette is responsible for the implementation of the MWRDRF's allocation, trustee education, the selection and monitoring of investment managers as well as investment performance analysis. Marquette follows the CFA® Institute's Performance Presentation Standards for calculating and reporting performance returns. The assumed actuarial rate of return for the MWRDRF was 7.25%. In 2019, the Fund returned 18.3% net of fees. Over the same period, the policy index returned 18.8%.

At the start of the year, the Fed signaling no further hikes as the U.S. yield curve was inverted on the very short end. The trade war was in full swing and by the end of 1Q19, yield curve inversion intensified, and the Fed signaled impending rate cuts as a response. In 2Q19, the bond markets showed pessimism with yields pushing down as the 10-year — which began the year at 2.66% — tumbled to 2.00% by the middle of the year. In 3Q19, the Fed cut rates twice as the 10-year bottomed at 1.47%. Finally, in the fourth quarter the Fed cut a third time and the 10-year rebounded to 1.92% at year-end. The Fed rate cuts reduced yields on the short end of the yield curve, while the trade war drove both foreign and domestic buying on the long end; the end result was a duration-driven tailwind for all fixed income asset classes, with the full brunt of the tax cuts aiding credit. Bonds generally did very well and the Agg returned 8.7% in 2019. The MWRDRF ended 2019 with a 26.6% allocation to fixed income; net of fees, the fixed income composite returned 8.8% versus the benchmark (Barclays Aggregate) which returned 8.7%.

U.S. equities ended the year near all-time highs and 2019 began with a strong rebound after nearly hitting bear market territory in December 2018. As measured by the S&P 500, equities recorded their best January performance since 1987 and best 1Q return since 1998. Concerns regarding a global economic slowdown began to take effect in the second quarter; however, the Fed's late-cycle dovish pivot and three interest rate cuts over the span of 2019 helped to provide a more supportive backdrop. Domestic equities continued their rise during the remainder of 2019 and finished with an exuberant year-end showing, posting 22 of 35 total new closing highs during 4Q alone. The MWRDRF ended the year with a 41.4% allocation to U.S equities; net of fees, the U.S equities composite returned 27.5% versus the benchmark (Wilshire 5000) which returned 31%.

After a disappointing 2018, non-U.S. equities snapped back with double-digit gains in 2019. Developed markets (22.0%) outperformed emerging markets (18.4%). Macro-risk factors continued to hang over global equity markets. The Brexit drama saw the resignation of Prime Minister May in the first half of the year. The outlook for a U.S.-China trade deal seemed to change week to week, thus increasing market volatility. The MWRDRF ended 2019 with a 22.6% allocation to non-U.S equities; net of fees, the non-U.S equity composite had a 20.0% return versus the benchmark (MSCI ACWI) which returned 21.5%.

2019 was certainly a profitable year for investors as most risk-seeking and defensive asset classes delivered positive returns – a stark contrast to the environment in 2018. As we muddle through 2020, there are a litany of questions facing global markets ranging from the COVID-19 pandemic, the U.S. election, trade disputes and global monetary policy, all of these factors will undoubtedly influence investment returns.

The MWRDF portfolio continues to be highly liquid and transparent and the use of dedicated passive management in U.S and non-U.S Large Cap and Mid Cap equities has helped to control the portfolio's tracking error versus the policy benchmark

Sincerely,

Kweku Obed, CFA, CAIA

# INVESTMENT PREFACE

### INVESTMENT AUTHORITY

The Metropolitan Water Reclamation District Retirement Fund's (Fund) investment authority is established by and subject to the provisions of the Illinois Compiled Statutes, Chapter 40, Act 5, Articles 1 and 13.

The Retirement Fund Board of Trustees (Board) invests the Fund's reserves according to the Prudent Person Rule. This rule requires a Trustee, who is a fiduciary by way of title, to discharge their duties with the care, prudence and diligence that a prudent person acting in a like capacity and familiar with such matters would use in a similar situation.

### INVESTMENT RESPONSIBILITY

The duties of the Board include the appointment and review of investment managers as fiduciaries to manage the investment assets of the Fund. The investment managers are granted discretionary authority to manage stated assets and vote all proxies for the Board. The investment managers must discharge their duties with respect to the Fund solely in the interest of the Fund's contributors and beneficiaries.

### INVESTMENT POLICY & OBJECTIVES

The Fund's asset allocation strategy is based on a combination of long-term investment return expectations and the Fund's expected cash requirements for payments of benefits and expenses. The investment objective of the total portfolio is to maximize the rate of return within a prudent level of risk.

The Fund is expected to exceed the policy index, on average, over rolling four quarter periods. During 2019, the Fund's actuarial return assumption was 7.25%. The Fund's policy index is as follows:

| | |
|---|---|
| 21% | S&P 500 Index |
| 10% | Russell MidCap Index |
| 10% | Russell 2000 Index |
| 10% | MSCI ACWI ex-US Index |
| 6% | S&P Developed Small Cap ex-U.S. |
| 6% | MSCI Emerging Markets Index |
| 27% | Bloomberg Barclays US Aggregate Index |
| 10% | NFI-ODCE Index |

Individual goals are established for each investment manager and incorporated into the contracts with those managers. The Board hires and reviews investment managers based on an evaluation of their investment philosophy, long-term performance and ability to complement existing portfolio styles. Investment managers must adhere to their stated investment philosophy and strive to attain their performance goals. The formal investment policy is reviewed annually.

### INVESTMENT ALLOCATION

The Investment Policy of the Fund establishes asset allocation targets and ranges for each asset class to achieve risk and return objectives. Fund staff, in collaboration with the Fund's investment consultant, monitors the investment allocation monthly. Rebalancing is normally recommended by the consultant when variances approach 5% over or under the targets. In addition, strategic withdrawals for payment of benefits are used to fine-tune the allocations.

As of December 31, 2019, and 2018, the Fund's asset allocation percentages, are listed below.

| Asset Class | 2019 Actual Asset Allocation | 2019 Target Allocation | 2018 Actual Asset Allocation |
|---|---|---|---|
| Domestic Equity | 41.4% | 41.0% | 40.8% |
| International Equity | 22.6% | 22.0% | 22.3% |
| Domestic Fixed income | 26.6% | 27.0% | 24.4% |
| Global Fixed Income | 0.0% | 0.0% | 7.3% |
| Real Estate | 9.4% | 10.0% | 5.2% |
| Total | 100.0% | 100.0% | 100.0% |

### INVESTMENT MANAGEMENT

The Fund's stated investment objective is to maximize the rate of return within a prudent level of risk. During 2019, the Board of Trustees, with the assistance of the Fund's investment consultant Marquette Associates when warranted, undertook the following investment activities related to the Fund's stated investment objective:

- In January, the Fund issued an RFP for investment consultant services in accordance with 40 ILCS 5/1-113.5 of the Illinois Compiled Statutes. After interviewing several firms at the March Board meeting, the Board approved the hiring of Marquette Associates for a 5-yr term beginning June 1st, 2019.
- At the April Board meeting, the Board approved the termination of the Fund's Global Fixed Income mandate. At the same meeting, the Board approved increasing the Fund's allocation to Core Open-End Real Estate from 5% to 10%. The increase in real estate allocation will be split evenly between the Fund's two current managers, UBS Trumbull Property Fund and DWS RREEF America REIT II.
- In May, the Fund issued an RFP for an MWDBE Core Plus Fixed Income manager. After interviewing respondents, the Board hired Ramirez Asset Management to manage the mandate. The $56 million mandate was funded in December 2019.
- The Fund's Investment Policy was revised twice in 2019. The first update in May 2019 modified the asset allocation with an increase to Core Open End Real Estate allocation from 5% to 10%. The second revision to the policy included the addition of a Sustainability Investment Policy in accordance with 40 ILCS 5/13-706(d).

### INVESTMENT MANAGEMENT, CONTINUED

- In 2019, the Fund exceeded its minority (MWDBE) broker/dealer commission goals of 30% for domestic equity trades, 10% for international equity trades and 20% of par for fixed income trades, achieving actual minority commissions of 59%, 26% and 28%, respectively.

### INVESTMENT PERFORMANCE

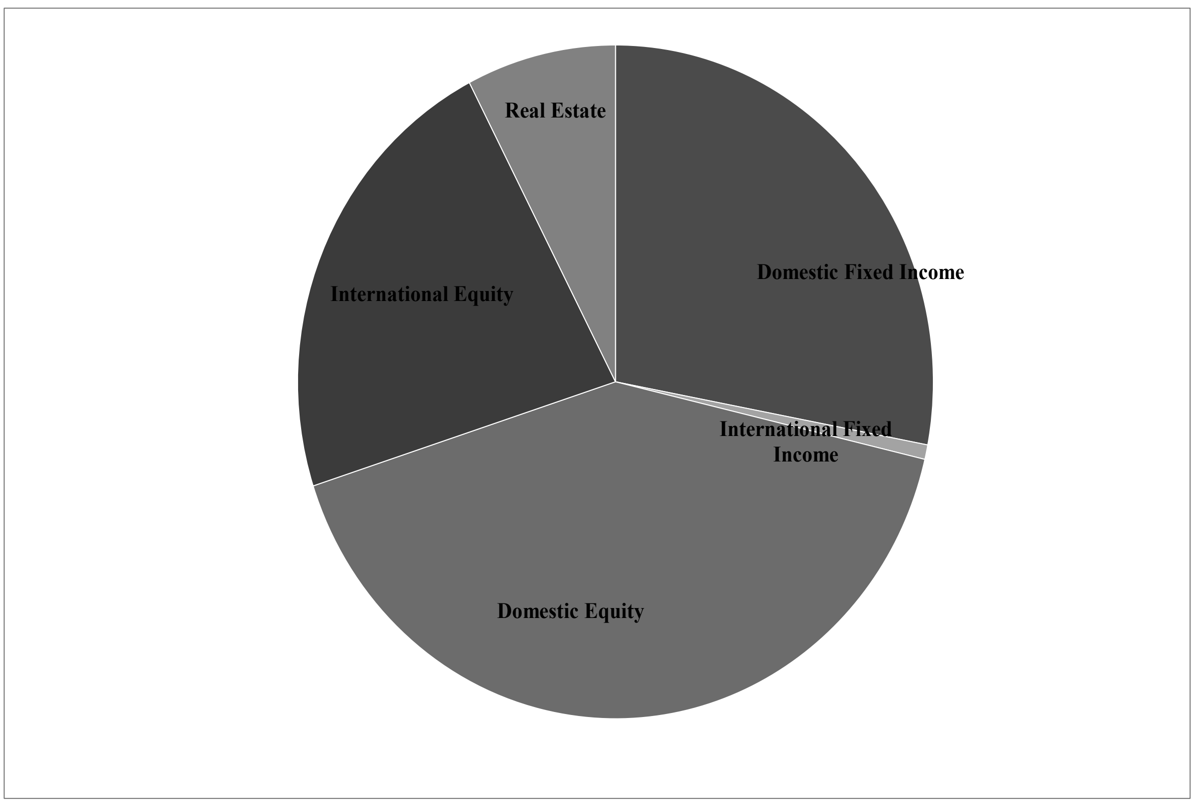
Marquette Associates evaluates investment manager performance as well as overall performance on a monthly and quarterly basis and presents their reports to the Trustees at the monthly Board meetings. Investment returns are calculated based on a time-weighted rate of return based on market values and in compliance with industry accepted reporting standards. Rates of returns are reported net of investment fees. The Fund's investment managers report performance in compliance with Global Investment Performance Standards. This reporting requirement is also included in the managers' contractual agreements with the Fund.

The time weighted market value rate of return on invested assets for the year ending December 31, 2019 was +18.3% net of fees, compared to the Fund's Policy Index return of +18.8%. The Fund's performance over the long term against the Policy Index, the various component indices, and the actuarial rate of return assumption is an important indicator of how well the Fund is accomplishing its investment objectives. Data for trend analysis is presented in tables later in this section entitled *Investment Returns – Last Ten Years* and *Historical Asset Allocation*.

**PORTFOLIO ASSET ALLOCATION**
**Summary at Fair Value**

| | December 31, 2019 | | December 31, 2018 | | December 31, 2017 | |
|---|---|---|---|---|---|---|
| Fixed Income Investments | | | | | | |
| Domestic Fixed Income | $371,075,591 | 26.2 % | $212,533,035 | 24.4 % | $167,708,532 | 12.1 % |
| International Fixed Income | 10,082,735 | 0.7 | 90,627,946 | 7.3 | 90,613,860 | 6.5 |
| | 381,158,326 | 26.9 | 303,160,981 | 31.7 | 442,522,604 | 32.0 |
| Equity Investments | | | | | | |
| Domestic Equity | 588,034,086 | 41.3 | 507,324,223 | 40.8 | 438,094,325 | 31.6 |
| International Equity | 319,417,381 | 22.4 | 277,387,644 | 22.3 | 333,545,437 | 24.1 |
| | 907,451,467 | 63.7 | 784,711,867 | 63.1 | 941,234,933 | 68.0 |
| Real Estate Investments | | | | | | |
| Domestic Real Estate | 106,871,867 | 7.6 | 63,897,521 | 5.2 | - | 0.0 |
| Short Term Investments & Cash | 27,414,299 | 1.8 | 274,178 | - | 15,319 | - |
| Total at Fair Value | $1,422,895,959 | 100.0 % | $1,152,044,547 | 100.0 % | $1,383,772,856 | 100.0 % |

**Asset Allocation**
**December 31, 2019**



## PORTFOLIO PERFORMANCE

| | Year ending 12/31/19[2] | 3-Year Annualized | 5-Year Annualized | 10-Year Annualized |
|---|---|---|---|---|
| **Fund's Total Portfolio** | **18.3 %** | **8.2 %** | **6.7 %** | **8.8 %** |
| Policy Index[1] | 18.8 | 8.7 | 6.9 | 9.0 |
| **Fund's Domestic Equity Composite** | **27.5** | **10.7** | **9.2** | **12.0** |
| Policy Index Components: | | | | |
| S&P 500 - Large cap Index | 31.5 | 15.3 | 11.7 | 13.6 |
| Russell Mid Cap - Mid cap Index | 30.5 | 12.1 | 9.3 | 13.2 |
| Russell 2000 - Small cap Index | 25.5 | 8.6 | 8.2 | 11.8 |
| **Fund's International Equities** | **20.0** | **9.4** | **7.3** | **7.4** |
| Policy Index Components: | | | | |
| MSCI ACWI ex-US Index | 21.5 | 9.9 | 5.5 | 5.00 |
| S&P Developed Small Cap ex-US Index | 24.7 | 10.4 | 8.2 | - |
| MSCI Emerging Markets Index | 18.4 | 11.6 | - | - |
| **Fund's Fixed Income** | **8.8** | **4.1** | **3.2** | **4.0** |
| Policy Index Components: | | | | |
| Bloomberg Barclay's US Aggregate Index | 8.7 | 4.0 | 3.0 | 3.7 |
| **Fund's Real Estate** | **1.3** | **-** | **-** | **-** |
| Policy Index Components: | | | | |
| NFI-ODCE Index | 4.4 | - | - | - |

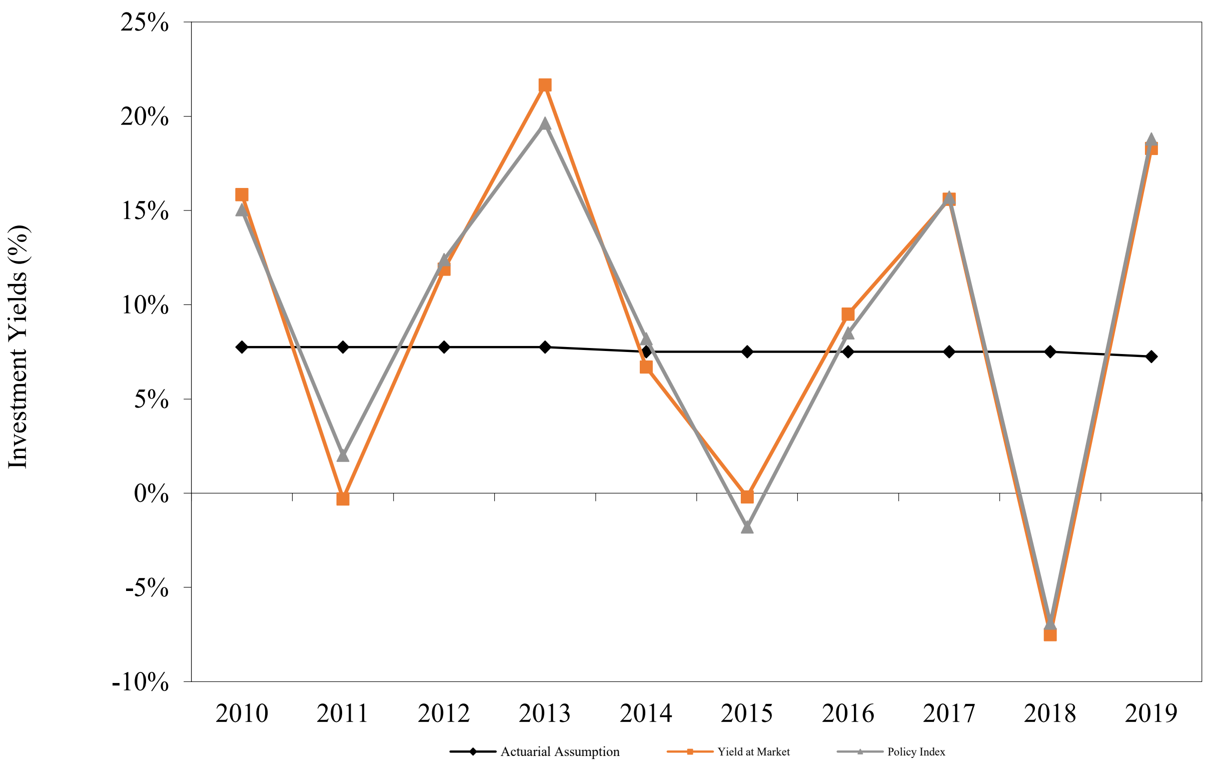
1 See current Policy Index in Investment Preface. From July 2016 through December 2017 the Fund's Policy Index was composed of 21% S&P 500 Index, 10% Russell Mid Cap Index, 11% Russell 2000 Index, 11% MSCI ACWI ex-US Index, 6% S&P Developed Small Cap ex-US Index, 6% MSCI Emerging Markets Index, 7% Barclays Global Aggregate (Hedged) Index and 28% Barclay's U.S. Aggregate Index.

2 Investment returns are reported net of investment fees. The calculation is based on a time-weighted rate of return at market and is in compliance with industry accepted reporting standards. Quarterly reports of the Fund's Investment Consultant can be obtained upon request.

Source: Marquette Associates, Investment Consultant

## INVESTMENT RETURNS
**Last Ten Years**

| December 31st | Invested Assets | Actuarial Assumption | Yield at Market[1] | Fund's Policy Index[2] |
|---|---|---|---|---|
| 2010 | $ 1,060,891,508 | 7.75% | 15.9% | 15.0% |
| 2011 | 979,087,210 | 7.75% | -0.3% | 2.0% |
| 2012 | 1,064,586,807 | 7.75% | 11.9% | 12.4% |
| 2013 | 1,246,898,339 | 7.75% | 21.7% | 19.6% |
| 2014 | 1,281,356,457 | 7.50% | 6.7% | 8.2% |
| 2015 | 1,221,831,791 | 7.50% | -0.2% | -1.8% |
| 2016 | 1,271,792,170 | 7.50% | 9.5% | 8.5% |
| 2017 | 1,383,772,856 | 7.50% | 15.6% | 15.7% |
| 2018 | 1,242,672,493 | 7.50% | -7.5% | -6.9% |
| 2019 | 1,422,895,959 | 7.25% | 18.3% | 18.8% |




[1] Time weighted investment returns are reported net of investment fees.

[2] The Fund's Policy Index is detailed on the previous page.

**HISTORICAL ASSET ALLOCATION**
**Last Ten Years**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Equities** | | | | | | | | | | |
| Domestic Equities | 62.8 | 55.0 | 53.0 | 58.3 | 48.5 | 46.5 | 43.2 | 43.9 | 40.8 | 41.3 |
| International Equities | 5.2 | 10.4 | 9.4 | 9.4 | 14.7 | 15.6 | 22.3 | 24.1 | 22.3 | 22.4 |
| | 68.0 | 65.4 | 62.4 | 67.7 | 63.2 | 62.1 | 65.5 | 68.0 | 63.1 | 63.7 |
| **Fixed Income** | | | | | | | | | | |
| Domestic Fixed Income | - | - | 37.6 | 32.3 | 36.8 | 31.9 | 27.7 | 25.5 | 24.4 | 26.2 |
| International Fixed Income | | | | | | 6.0 | 6.8 | 6.5 | 7.3 | 0.7 |
| | 0.0 | 0.0 | 37.6 | 32.3 | 36.8 | 37.9 | 34.5 | 32.0 | 31.7 | 26.9 |
| **Real Estate** | | | | | | | | | | |
| Domestic Real Estate | - | - | - | - | - | - | - | - | 5.2 | 7.6 |
| **Short Term Investments** | | | | | | | | | | |
| BNYM STIF | - | - | - | - | - | - | - | - | - | 1.8 |
| **Total Portfolio** | 68.0 | 65.4 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Allocation percentages based on Investment Assets at fair value as of December 31st.

**EQUITY DIVERSIFICATION**
**as of December 31, 2019**

| | | Fair Value | % of Total Equity |
|---|---|---|---|
| **Domestic Equities** | | | |
| Financials | $ | 92,790,299 | 17.0 % |
| Information Technology | | 61,882,493 | 11.3 |
| Industrials | | 61,980,831 | 11.3 |
| Consumer Discretionary | | 50,534,560 | 9.2 |
| Health Care | | 46,866,169 | 8.6 |
| Communication Services | | 23,739,279 | 4.3 |
| Consumer Staples | | 18,246,813 | 3.3 |
| Energy | | 10,866,007 | 2.0 |
| Real Estate | | 15,112,375 | 2.8 |
| Materials | | 15,163,373 | 2.8 |
| Utilities | | 3,338,572 | 0.6 |
| Unclassified | | 1,268,169 | 0.2 |
| Total Domestic Equities | | 401,788,940 | 73.4 |
| **International Equities** | | | |
| Financials | | 26,775,085 | 4.9 |
| Industrials | | 26,619,166 | 4.9 |
| Consumer Discretionary | | 17,312,908 | 3.2 |
| Materials | | 13,984,201 | 2.6 |
| Consumer Staples | | 13,017,523 | 2.4 |
| Unclassified | | 7,713,553 | 1.4 |
| Health Care | | 9,387,359 | 1.7 |
| Information Technology | | 7,999,675 | 1.5 |
| Real Estate | | 9,467,131 | 1.7 |
| Communication Services | | 3,137,746 | 0.6 |
| Utilities | | 2,696,397 | 0.5 |
| Energy | | 6,509,800 | 1.2 |
| Total International Equities | | 144,620,544 | 26.6 |
| Total Equity [1] | $ | 546,409,484 | 100.0 % |

[1] Equity totals on this schedule represent actively managed invested assets; balances do not include STI and cash and are in agreement with the Financial Statements.

**TOP 10 DOMESTIC COMMON STOCK HOLDINGS**
**as of December 31, 2019**

| Company Name | Industry | Shares | | Fair Value |
|---|---|---|---|---|
| Apple Inc | Computers | 20,023 | $ | 5,879,754 |
| Microsoft Corp | Software | 28,450 | | 4,486,565 |
| Citigroup Inc | Banks | 48,810 | | 3,899,431 |
| Stanley Black & Decker Inc | Hand/Machine Tools | 22,681 | | 3,759,149 |
| Northern Trust Corp | Banks | 34,500 | | 3,665,280 |
| Aflac Inc | Insurance | 68,600 | | 3,628,940 |
| The Interpublic Group of Cos Inc | Advertising | 152,000 | | 3,511,200 |
| The JM Smucker Co | Food Processing | 32,190 | | 3,351,945 |
| Laboratory Corp of America | Health Care Services | 19,600 | | 3,315,732 |
| Alphabet Inc-Cl A | Internet | 2,406 | | 3,222,572 |

**TOP 10 INTERNATIONAL COMMON STOCK HOLDINGS**
**as of December 31, 2019**

| Company Name | Industry | Shares | | Fair Value |
|---|---|---|---|---|
| Nestle SA | Food Processing | 17,835 | $ | 1,929,830 |
| Roche Holding AG | Pharmaceuticals | 4,954 | | 1,606,399 |
| Novartis AG | Pharmaceuticals | 13,507 | | 1,281,864 |
| Total SA | Oil & Gas | 20,261 | | 1,118,954 |
| Royal Dutch Shell PLC | Integrated Oil & Gas - Uk | 35,397 | | 1,048,040 |
| Sanofi | Pharmaceuticals | 10,390 | | 1,045,218 |
| Mitsubishi Ufj Financial Group | Banks | 183,100 | | 999,447 |
| Sumitomo Mitsui Financial Group | Banks | 25,300 | | 940,063 |
| Showa Corp | Auto Parts & Equipment | 44,400 | | 928,243 |
| Mizrahi Tefahot Bank Ltd | Banks | 33,200 | | 884,308 |

## FIXED INCOME DIVERSIFICATION
**as of December 31, 2019**

| | Fair Value | % of Total Equity | |
|---|---|---|---|
| **Domestic Fixed Income** | | | |
| Treasuries & Government | $ 48,061,150 | 22.6 | % |
| Corporate | 72,940,127 | 34.3 | |
| Mortgage-backed | 60,771,676 | 28.6 | |
| Asset-Backed | 3,332,767 | 1.6 | |
| Municipals | 17,443,676 | 8.2 | |
| Total Domestic Fixed Income | 202,549,396 | 95.3 | |
| **International Fixed Income** | | | |
| Corporate | 3,780,255 | 1.7 | |
| Asset-Backed | - | 0.0 | |
| Foreign Government | 6,302,480 | 3.0 | |
| Total International Fixed Income | 10,082,735 | 4.7 | |
| Total Fixed Income [1] | $ 212,632,131 | 100.0 | % |

[1] Actively managed fixed income totals on this schedule represent invested assets and thus do not include STI and cash; totals are in agreement with the Financial Statements.

**TOP 10 DOMESTIC FIXED INCOME HOLDINGS**
**as of December 31, 2019**

| Security Name | | Sub-Asset Class | Fair Value |
|---|---|---|---|
| U S Treasury Note | 2.625% 05/15/2021 DD 05/15/18 | U. S. Government Securities | $ 7,324,343.75 |
| U S Treasury Note | 1.500% 08/15/2022 DD 08/15/19 | U. S. Government Securities | 5,562,790.75 |
| U S Treasury Note | 2.375% 05/15/2027 DD 05/15/17 | U. S. Government Securities | 5,170,990.35 |
| U S Treasury Bond | 2.500% 05/15/2046 DD 05/15/16 | U. S. Government Securities | 4,191,150.60 |
| U S Treasury Bond | 6.250% 05/15/2030 DD 11/15/99 | U. S. Government Securities | 3,658,798.00 |
| U S Treasury Note | 2.250% 11/15/2027 DD 11/15/17 | U. S. Government Securities | 3,656,104.20 |
| U S Treasury Bond | 2.750% 08/15/2042 DD 08/15/12 | U. S. Government Securities | 3,413,938.00 |
| PNC Bank NA | VAR RT 07/27/2022 DD 07/28/17 | Corporate Debt Instruments | 2,411,208.00 |
| US Treas-CPI Inflat | 2.125% 02/15/2040 DD 02/15/10 | U. S. Government Securities | 2,155,129.27 |
| Federal Home Ln Bk Cons Bd | VAR RT 09/13/2021 DD 09/13/19 | U. S. Government Securities | 2,067,205.50 |

**TOP 10 INTERNATIONAL FIXED INCOME HOLDINGS**
**as of December 31, 2019**

| Security Name | | Sub-Asset Class | Fair Value |
|---|---|---|---|
| Mitsubishi UFJ Financial Group | 2.623% 07/18/2022 DD 07/18/19 | Corporate Debt Instruments | $ 623,407.05 |
| Province Of Alberta Canada | 1.875% 11/13/2024 DD 11/13/19 | Corporate Debt Instruments | 558,174.40 |
| Santander UK PLC | 2.125% 11/03/2020 DD 11/03/17 | Corporate Debt Instruments | 540,642.60 |
| Total Capital International SA | 2.829% 01/10/2030 DD 07/10/19 | Corporate Debt Instruments | 529,404.55 |
| BNP Paribas SA | 3.500% 03/01/2023 DD 03/01/18 | Corporate Debt Instruments | 476,044.80 |
| Brazilian Government Int | 2.625% 01/05/2023 DD 09/12/12 | Corporate Debt Instruments | 400,000.00 |
| Imperial Brands Finance | 3.875% 07/26/2029 DD 07/26/19 | Corporate Debt Instruments | 383,336.40 |
| British Telecommunication | 3.250% 11/08/2029 DD 11/08/19 | Corporate Debt Instruments | 309,770.60 |
| DH Europe Finance II | 3.250% 11/15/2039 DD 11/07/19 | Corporate Debt Instruments | 307,632.15 |
| Kazakhstan Government Int | 6.500% 07/21/2045 DD 07/21/15 | Corporate Debt Instruments | 294,870.00 |

## ASSETS UNDER MANAGEMENT
**By Asset Type and Manager**

| | December 31, 2019 | | December 31, 2018 | |
|---|---|---|---|---|
| | Fair Value | % of Total | Fair Value | % of Total |
| Fixed Income Managers | | | | |
| Fixed Income | | | | |
| State Street Global Advisors | $ 153,332,069 | 10.8 % | $ 145,373,885 | 11.7 % |
| Neuberger Berman | 114,551,931 | 8.1 | 105,418,853 | 8.5 |
| Ramirez Asset Management | 55,645,876 | 3.9 | - | 0.0 |
| Garcia Hamilton & Associates | 57,628,450 | 4.1 | 52,368,243 | 4.2 |
| Subtotal | 381,158,326 | 26.8 | 303,160,981 | 24.4 |
| Global Fixed Income | | | | |
| Standish | - | 0.0 | 90,627,946 | 7.3 |
| Total Fixed Income | 381,158,326 | 26.8 | 393,788,927 | 31.7 |
| Equity Managers | | | | |
| Domestic Equity | | | | |
| Ariel Investments | 85,922,757 | 6.0 | 71,034,376 | 5.7 |
| Decatur Capital Management, Inc. | 67,861,251 | 4.8 | 58,244,064 | 4.7 |
| Mesirow Financial Management | 29,663,788 | 2.1 | 23,865,711 | 1.9 |
| LSV Asset Management | 70,590,135 | 5.0 | 61,454,435 | 4.9 |
| Matarin Capital Management | 39,026,451 | 2.7 | 43,417,054 | 3.5 |
| O'Shaughnessy Asset Management, LLC. | 42,422,717 | 3.0 | 36,034,746 | 2.9 |
| State Street Global Advisors | 177,932,650 | 12.5 | 148,885,547 | 12.0 |
| Wasatch Advisors | 74,614,339 | 5.2 | 64,388,291 | 5.2 |
| Subtotal | 588,034,086 | 41.3 | 507,324,223 | 40.8 |
| International Equity | | | | |
| Hexavest Inc. | 73,244,052 | 5.1 | 65,054,569 | 5.2 |
| Dimensional Fund Advisors | 85,798,469 | 6.0 | 75,789,431 | 6.1 |
| LSV Asset Management | 87,736,609 | 6.2 | 70,254,886 | 5.7 |
| State Street Global Advisors | 72,638,251 | 5.1 | 66,288,758 | 5.3 |
| Subtotal | 319,417,381 | 22.4 | 277,387,644 | 22.3 |
| Total Equities | 907,451,467 | 63.8 | 784,711,868 | 63.1 |
| Real Estate Managers | | | | |
| DWS RREEF America II | 40,681,532 | 2.9 | 26,778,440 | 2.2 |
| UBS Trumbull Property Fund | 66,190,335 | 4.7 | 37,119,081 | 3.0 |
| Total Real Estate | 106,871,867 | 7.5 | 63,897,521 | 5.1 |
| Cash | 27,414,299 | 1.9 | 274,178 | 0.0 |
| Total Investments | $1,422,895,959 | 100.0 % | $1,242,672,493 | 100.0 % |

## INVESTMENT MANAGER COMPENSATION

| Investment Managers:[1] | 2019 | 2018 |
|---|---|---|
| Ariel Investments | $ 396,754 | $ 409,062 |
| DWS | 356,874 | 118,484 |
| Decatur Capital Management, Inc. | 373,496 | 371,895 |
| Garcia Hamilton & Associates | 105,088 | 100,047 |
| Hexavest Inc. | 391,804 | 389,831 |
| LSV Asset Management | 1,002,424 | 1,033,548 |
| Matarin Capital Management | 347,639 | 396,076 |
| Mesirow Financial Management | 183,745 | 186,093 |
| Neuberger Berman | 263,646 | 256,724 |
| O'Shaughnessy Asset Management, LLC. | 192,547 | 200,255 |
| Ramirez Asset Management | 5,979 | - |
| Standish Mellon Asset Management | 102,624 | 226,325 |
| State Street Global Advisors | 112,042 | 113,133 |
| UBS Realty Investors | 432,885 | 316,765 |
| Wasatch Advisors | 543,585 | 554,850 |
| Total | $4,811,132 | $4,673,088 |

## CUSTODIAL FEES [2]

| Institution | | |
|---|---|---|
| Bank of New York Mellon Co. | $ 168,424 | $ 181,092 |

## INVESTMENT CONSULTANT FEES

| Consulting Firm | | |
|---|---|---|
| Marquette Associates | $ 175,833 | $ 170,000 |
| Total Investment Expenses | $5,155,389 | $5,024,180 |

[1] Investment manager compensation is reflected in the financial statements along with other direct investment expenses as an offset to investment income and is so described within the notes to the financial statements.

[2] Custodial fees do not include management fees related to the Fund's commingled assets custodied by State Street.

## SCHEDULE OF 2019 DOMESTIC BROKERAGE COMMISSIONS

| Broker Name | Commissions[1] | % of Total |
|---|---|---|
| Loop Capital Markets[2] | $ 25,742 | 16.7 |
| CL King & Associates[2] | 19,524 | 12.6 |
| Penserra Securities[2] | 12,470 | 8.1 |
| Robert W Baird & Co. | 9,618 | 6.2 |
| Drexel Hamilton, LLC. | 7,923 | 5.1 |
| Castleoak Securities[2] | 6,468 | 4.2 |
| Stifel Nicolaus | 6,409 | 4.1 |
| Goldman Sachs & Co | 6,307 | 4.1 |
| Academy Securities Inc.[2] | 6,112 | 4.0 |
| Cabrera Capital Markets[2] | 6,107 | 4.0 |
| Williams Capital Group LP[2] | 6,015 | 3.9 |
| Raymond James & Assoc Inc | 4,247 | 2.7 |
| Piper Jaffray & Co | 4,114 | 2.7 |
| Investment Technology Group | 3,773 | 2.4 |
| Liquidnet International | 2,955 | 1.9 |
| Jeffries & Co | 2,682 | 1.7 |
| Jones trading | 2,570 | 1.7 |
| Credit Suisse Securities | 1,918 | 1.2 |
| Ladenburg Thalman & Co | 1,615 | 1.0 |
| Subtotal | 136,569 | 88.3 |
| All Others[3] | 17,946 | 11.7 |
| Total | $ 154,515 | 100.0 |

1 Investment brokerage commissions are accounted for as an additional cost to a security when the security is purchased, and as a reduction to the cash amount received when the security is sold.

2 Directed brokerage for stock trades executed by Minority/Women/Disabled/Veteran – Owned Business Enterprises.

3 Brokerage firms that each received less than 1.0% of the total commissions.

## SCHEDULE OF 2019 INTERNATIONAL BROKERAGE COMMISSIONS

| Broker Name | Commissions | % of Total |
|---|---|---|
| Mischler Financial Group, Inc.[2] | $ 12,338 | 16.4 |
| Pictet Canada L.P. | 6,695 | 8.9 |
| JP Morgan Securities | 5,777 | 7.7 |
| Morgan Stanley & Co. Inc. | 4,738 | 6.3 |
| Investment Technology Group Ltd | 4,181 | 5.5 |
| UBS Securities LLC | 3,996 | 5.3 |
| Cabrera Capital Markets, LLC[2] | 3,915 | 5.2 |
| Credit Suisse Securities | 3,765 | 5.0 |
| Deutsche Bank Securities Inc | 3,094 | 4.1 |
| Loop Capital Markets LLC[2] | 3,033 | 4.0 |
| Instinet Corp | 2,069 | 2.7 |
| Macquarie Securities | 2,018 | 2.7 |
| Bank of America/Merrill Lynch | 1,980 | 2.6 |
| Barclays Capital | 1,978 | 2.6 |
| Goldman Sachs & Co | 1,662 | 2.2 |
| Mizuho Securities Inc | 1,538 | 2.0 |
| Liquidnet | 1,475 | 2.0 |
| CLSA | 1,375 | 1.8 |
| ODDO Securities | 1,307 | 1.7 |
| Valeur Mobilieres Desjardins | 1,290 | 1.7 |
| SMBC Securities, Inc | 1,264 | 1.7 |
| Societe Generale | 1,066 | 1.4 |
| Keefe, Bruyette & Woods Ltd | 844 | 1.1 |
| Citigroup Global Markets | 801 | 1.1 |
| Subtotal | 72,199 | 95.7 |
| All Others[3] | 3,156 | 4.3 |
| Total | $ 75,355 | 100.0 |

1 Investment brokerage commissions are accounted for as an additional cost to a security when the security is purchased, and as a reduction to the cash amount received when the security is sold.

2 Directed brokerage for stock trades executed by Minority/Women/Disabled/Veteran - Owned Business Enterprises.

3 Brokerage firms that each received less than 1.0% of the total commissions.

# ACTUARIAL SECTION

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

April 29, 2020

Board of Trustees
Metropolitan Water Reclamation District Retirement Fund
111 E. Erie St.
Chicago, IL 60611

Dear Board:

We are pleased to present to the Board this report of the December 31, 2019 actuarial valuation of the Metropolitan Water Reclamation District Retirement Fund.

The valuation was performed as of December 31, 2019 to determine the current funding status and to develop the appropriate funding requirements for the applicable plan year. Successive valuations will be performed every year.

Included are the related results for GASB Statements No. 67 and No. 68. The total pension liability, net pension liability, and certain sensitivity information shown in the GASB results are based on an actuarial valuation performed as of the valuation date. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and produce significantly different results.

**Data Sources**
In preparing this report, we have relied on personnel, plan design and asset information supplied by the Fund. The actuarial value of assets was determined based on audited financial statements supplied by Legacy Professionals LLP, the auditor for the Fund. In our opinion, the assumptions used in the valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated fund experience. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

**Experience**
The experience of the Fund over the last year is outlined in this report. Overall, the Fund experienced an actuarial loss of $42,228,169 which consists of a $23,071,682 loss on the Fund's actuarial value of assets and a $17,372,326 loss on the Fund's actuarial accrued liability. Based on the actuarial value of assets, the Fund earned 5.60% compared to the assumed 7.25% return. The primary source of liability loss was earlier than expected retirement experience. For example, for the period ending December 31, 2019, the Fund experienced 60 retirements before age 64. However, the expected number of retirements before age 64 for the period based on assumed retirement rates was 47.

184 Shuman Blvd., Suite 305 Naperville, IL 60563 · (239) 433-5500 · Fax (239) 481-0634 · www.foster-foster.com

**Changes Since Prior Report**
The valuation reflects no changes since the prior report.

**Contribution Amounts**
The funding objective of the Fund is to attain a funded ratio of at least 90% by the year 2050. However, an additional contribution requirement has been determined based on achieving a funding level of 100%. Employer contributions come from a property tax levied by the District equal to an amount that will be sufficient to meet the Fund's actuarially determined contribution requirement but shall not exceed an amount equal to the total employee contributions 2 years prior multiplied by 4.19.

Based on the results of this valuation, the actuarially determined contribution applicable for the fiscal year ending December 31, 2020 is $77,392,414. The maximum tax levy (based on the 4.19 tax multiple) is $88,127,000.

We estimate that a tax multiple of 3.68 is required to cover the full actuarially determined contribution requirement for the year 2020.

Illinois Public Act 97-0894 (effective 8/3/2012) provided for changes to member contribution requirements and the required tax levy multiplier. The expected member contributions in 2019 reflect the same rates expected in 2018.

**Schedules for CAFR**
The report includes information and trend data schedules for use in the Comprehensive Annual Financial Report (CAFR). The following information and exhibits are included in the body of the report and Supplementary Tables section:

- Recommended Employer Multiple
- Present Value of Future Benefits
- Membership Note Data
- Participant Statistics
- History of Change in Unfunded Accrued Liability
- History of Annuitants and Surviving Spouses Added/Dropped from Rolls
- Summary of Annuitants and Surviving Spouses by Age
- History of Average Annuities at Retirement
- Breakdown of Aggregate Accrued Liabilities

184 Shuman Blvd., Suite 305 Naperville, IL 60563 · (239) 433-5500 · Fax (239) 481-0634 · www.foster-foster.com

**Actuarial Certification**

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Article 13, Illinois Pension Code, as well as applicable federal laws and regulations. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In our opinion, the assumptions and method used to determine the annual required contribution, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

In our opinion, the following valuation results fairly present the financial condition of the Metropolitan Water Reclamation District Retirement Fund as of December 31, 2019.

The undersigned is familiar with the immediate and long-term aspects of pension valuations and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on this report has any direct financial interest or indirect material interest in the Metropolitan Water Reclamation District, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Metropolitan Water Reclamation District Retirement Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

We look forward to discussing the results with you.

Regards,

Jason L. Franken, FSA, EA, MAAA

Enrollment Number: 20-06888
Foster & Foster, Inc.

184 Shuman Blvd., Suite 305 Naperville, IL 60563 · (239) 433-5500 · Fax (239) 481-0634 · www.foster-foster.com

# ACTUARIAL PREFACE

### PENSION FINANCING

The approaches used to finance pensions can be divided into two basic categories. Under Pay-As-You-Go Financing the benefits called for by the plan would be paid out directly by the employer as they become due. Most public retirement plans including the MWRD Retirement Fund use Actuarial Funding, a form of Advance Funding, which is designed to set aside money during an employee's working career so that sufficient funds are accumulated at the time of retirement to pay the employee's future pension. This method builds up a pool of assets which will generate investment income, thereby reducing the contribution requirements to meet the pension costs.

### ACTUAL FUNDING

The Fund is financed by employee contributions, employer contributions (i.e. the MWRD tax levy) and investment earnings; investment earnings and employer funding are the primary determinants of the Fund's financial status.

Through fiscal year 2013, employer contributions were set at 2.19 times employee contributions made in the calendar year two years prior. Beginning in 2013, employer contributions were increased to the lesser of the amount resulting from using a 4.19 multiple, or the actuarially determined contribution requirement.

Prior to 2013, employee contributions were 9% of salary for all employees. Contributions for Tier I employees, who became members before January 1, 2011, increased to 10% of salary in 2013, to 11% in 2014 and to 12% in 2015; the Tier I contribution rate remains at 12%. Contributions for Tier II employees, who became members after January 1, 2011, are 9% of salary.

### ACTUARIAL FUNDING

The Fund's actuary performs an annual actuarial valuation which includes the determination of the Actuarial Accrued Liability, the Actuarial Value of Assets and what is known as the Actuarially Determined Contribution Requirement. Actuaries use demographic data (such as employee age, salary, and service credits), economic assumptions (such as estimated salary increases and interest rates), and decrement assumptions (such as employee turnover, mortality, and retirement rates) in performing these valuations. The actuarial valuation process is generally as follows:

1. Based on the demographic data and actuarial assumptions described above, the amount and timing of benefits payable in the future are estimated by the actuary for all participants at the valuation date. Important assumptions in this computation are the turnover, retirement age, and earnings progression for active members, and mortality for all participants.

2. The actuary then calculates the actuarial present value of these future benefits. This is the amount necessary to be invested at the valuation interest rate, at the valuation date, to provide benefit payments as they come due. Each year's estimated benefit payments are discounted by an assumed interest rate to determine the present dollar value of benefits.

3. The final step is to apply a cost method assigning portions of the total value of benefits to past, present and future periods of employee service. This allocation is accomplished by the development of normal cost and accrued benefit cost.

One of the most important actuarial assumptions is the assumed rate of return on investments. The Fund's current assumed rate is 7.25% as of the 12/31/19 valuation. It is believed to be appropriate based on the actuary's review of capital market assumptions and other factors which are part of the annual valuation. Based on common actuarial practice this return has been determined reasonable and achievable through asset allocation, on average, over the long-term.

The Fund uses the entry age normal actuarial cost method with costs allocated on the basis of earnings, one of several accepted actuarial cost methods. Under this cost method, the Actuarial Present Value of the projected pension of each member included in the valuation is assumed to be funded by annual installments, equal to a level percent of the member's earnings for each year between entry age and assumed exit age. The normal cost for the member for the current year is equal to the portion of the value so determined, assigned to this year. The normal cost for the plan for the year is the sum of the normal costs of all active members. The normal cost for the year beginning January 1, 2020 was determined to be $33.4 million or 17.56% of payroll (11.18% of payroll is expected from employee contributions, 5.52% of payroll is the employer's portion, and 0.86% of payroll for administrative expenses.)

Accrued benefit cost, or the Actuarial Accrued Liability (AAL), is the portion of the present value of benefits assigned by the cost method to years of service up to the valuation date (i.e. for past service). This value changes as the member's salary and years of service change, and as some members leave and are replaced by new members. Future normal cost is the portion of the present value of benefits assigned to future years of service (i.e. for future service) and is assumed to be funded annually.

To the extent that current assets plus future normal costs (assumed to be funded annually) do not support members' expected future benefits, an Unfunded Actuarial Accrued Liability (UAAL) develops. The UAAL is generally amortized over a fixed period of time (e.g. 30 years) from the date incurred. Actuarial funding of plan benefits would require annual District (employer) contributions which at least cover the employer's normal cost, plus an amortization of the UAAL. In the past the District funded the plan according to statute as described above, which until the 2013 tax levy resulted in actual contributions that often fell short of the actuarial requirement. Legislation passed in 2012 changed the computation of the tax levy, resulting in higher District contributions that more closely approximates the actuarial funding requirement. The legislation which increased both the employer and employee contribution requirements is expected to eliminate the UAAL by the year 2050.

The information following this Preface is from the December 31, 2019 actuarial valuation performed by Foster & Foster, which was based upon:

a) Membership data - provided by Fund staff

b) Assets of the Fund - audited financial statements

c) Actuarial Method – entry age actuarial cost method, approved by the Board

d) Actuarial Assumptions – summarized in this section, approved by the Board

### SUMMARY OF VALUATION RESULTS

| | December 31, 2019 | December 31, 2018 |
|---|---|---|
| Total Actuarial Liability | $ 2,666,221,630 | $ 2,601,163,632 |
| Actuarial Value of Assets | 1,489,266,144 | 1,470,308,639 |
| Unfunded Actuarial Liability | $ 1,176,955,486 | $ 1,130,854,993 |
| Funded Ratio | 55.90% | 56.50% |
| Market Value of Assets | $ 1,506,834,278 | $ 1,343,994,268 |
| Unfunded Liability (MVA basis) | $ 1,159,387,352 | $ 1,257,169,364 |
| Funded Ratio (MVA basis) | 56.50% | 51.70% |
| Employer Normal Cost as % of Payroll: | | |
| Tier 1 Benefits | 6.38% | 6.48% |
| Tier 2 Benefits | 3.19% | 3.39% |
| Administrative Expenses | 0.86% | 0.90% |
| Total Employer Normal Cost | 6.38% | 6.67% |
| Applicable Fiscal Year[1] | **2020** | **2019** |
| Actuarially Determined Contribution | $ 77,392,414 | $ 74,279,999 |
| Contribution Requirement For Fiscal Year[2] | $ 77,392,414 | $ 74,279,999 |
| Expected Employer Contribution from Tax Levy for Fiscal Year | $ 88,127,000 | $ 87,319,000 |
| Present Value of Future Benefits | $ 2,937,449,951 | $ 2,776,759,424 |

[1] The contribution requirements are levied in the applicable fiscal year and deposited into the Fund during the following fiscal year.

[2] See details of calculation on p. 84

## ACTUARIAL LIABILITY AND FUNDED RATIO AS OF DECEMBER 31, 2019

| | | |
|---|---|---|
| Actuarial Liabilities for Active Members | | |
| | Retirement | $ 667,726,584 |
| | Termination | 18,222,113 |
| | Death | 23,353,487 |
| | Disability | 6,863,535 |
| | Total | 716,165,719 |
| Actuarial Liabilities for Members Receiving Benefits | | |
| | Retirement Annuities | 1,701,020,936 |
| | Survivor Annuities/Children | 228,919,931 |
| | Total | 1,929,940,867 |
| Actuarial Liability for Inactive Members | | 20,115,044 |
| Total Actuarial Liability | | $ 2,666,221,630 |
| Actuarial Value of Assets | | 1,489,266,144 |
| Unfunded Actuarial Liability | | $ 1,176,955,486 |
| Funded Ratio | | 55.9% |

**UNFUNDED ACTUARIAL LIABILITY**
**YEAR ENDED DECEMBER 31, 2019**

| | | |
|---|---|---|
| 1. Unfunded actuarial accrued liability (UAAL) as of 12/31/18 | | $ 1,130,854,993 |
| 2. Employer normal cost developed as of 12/31/18 | $ 12,537,329 | |
| 3. Expected interest on 1 and 2 | 82,895,943 | |
| 4. Less: Actual employer contribution for the year | 87,446,476 | |
| 5. Less: Expected interest on 4 | 3,114,473 | |
| 6. Net increase in UAAL due to employer contribution being less than normal cost plus interest on unfunded liability (lines 2 +3 -4 -5) | | 4,872,323 |
| 7. Expected UAAL as of 12/31/19 | | 1,135,727,316 |
| 8. Change in UAAL due to actuarial (gain)/loss, by component: | | |
| Increase in UAAL due to investment return lower than assumed | 23,071,682 | |
| Decrease in UAAL due to salary increases lower than assumed | (4,517,433) | |
| Increase in UAAL due to decrement experience | 21,233,555 | |
| Increase in UAAL due to inactive mortality experience | (1,301,600) | |
| Increase in UAAL due to other changes | 2,741,966 | |
| Net decrease in UAAL due to actuarial experience | | 41,228,170 |
| 9. Change in UAAL Due ot Assumption Changes | | - |
| 10. Unfunded actuarial accrued liability as of 12/31/19 | | $ 1,176,955,486 |

## ACTUARIALLY DETERMINED CONTRIBUTION

| | | | |
|---|---|---|---|
| 1. | Employer's Share of Normal Cost | $ | 12,115,137 |
| 2. | Amortization Payment (annual amount to amortize 100% of the unfunded liability by 2050) | | |
| | Actuarial Liability | $ | 2,666,221,630 |
| | Actuarial Assets | $ | 1,489,266,144 |
| | Unfunded Accrued Liability | $ | 1,176,955,486 |
| | Amortization Period | | 31 years |
| | Amortization Payment | $ | 65,277,277 |
| 3. | Actuarially Determined Contribution for Year Beginning January 1, 2020 | $ | 77,392,414 |
| | as a percentage of pensionable payroll | | 40.74% |
| 4. | District's Funding Policy (4.19 x Total Member Contributions for two years prior) | $ | 88,127,000 |
| | as a percentage of pensionable payroll | | 46.39% |
| 5. | Statutory Tax Levy (lesser of 3 and 4) | $ | 77,392,414 |

The above information presents the actuarially determined contribution requirement based on the provisions applicable for fiscal years 2013 and later, according to section 13-503 of Article 13 of the Illinois Pension Code.

## PARTICIPANT DATA

| | December 31, 2019 | December 31, 2018 | Change |
|---|---|---|---|
| Number Active Members - Total | 1,817 | 1,832 | -0.8% |
| Number Active Members - Fully Vested | 1,174 | 1,208 | -2.8% |
| Number Receiving Benefits | | | |
| Retirement Annuities | 1,883 | 1,848 | 1.9% |
| Surviving Spouse Annuities | 561 | 571 | -1.8% |
| Children's Annuities | 21 | 24 | -12.5% |
| Number Inactive Members - Total | 131 | 127 | 3.1% |
| Number Inactive Members - Vested | 38 | 35 | 8.6% |
| Total Members | 4,413 | 4,402 | 0.2% |
| Total Pensionable Salary | $ 189,961,010 | $ 187,849,708 | 1.1% |
| **Active Statistics – Tier 1** | | | |
| Number | 1,225 | 1,322 | -7.3% |
| Average Age | 53.20 | 52.75 | 0.8% |
| Average Service | 17.68 | 17.35 | 1.9% |
| Total Pensionable Salary | $ 138,352,537 | $ 145,118,272 | -4.7% |
| Average Salary | $ 112,941 | $ 109,772 | 2.9% |
| **Active Statistics – Tier 2** | | | |
| Number | 592 | 510 | 16.1% |
| Average Age | 42.95 | 42.67 | 0.7% |
| Average Service | 3.80 | 3.38 | 12.4% |
| Total Salary | $ 51,942,396 | $ 43,037,914 | 20.7% |
| Average Salary | $ 87,741 | $ 84,388 | 4.0% |
| Pensionable Salary | $ 51,608,473 | $ 42,731,436 | 20.8% |
| Average Pensionable Salary | $ 87,176 | $ 83,787 | 4.0% |
| **Annuitant Statistics** | | | |
| Total Retirement Annuities | $ 142,324,135 | $ 135,435,622 | 5.1% |
| Number | 1,883 | 1,848 | 1.9% |
| Average Age | 72.40 | 72.40 | 0.0% |
| Average Annuity | $ 75,584 | $ 73,288 | 3.1% |
| Total Surviving Spouse Annuities | $ 27,127,117 | $ 25,965,116 | 4.5% |
| Number | 561 | 571 | -1.8% |
| Average Age | 79.60 | 79.40 | 0.3% |
| Average Annuity | $ 48,355 | $ 45,473 | 6.3% |
| Total Children's Annuities | $ 126,000 | $ 144,000 | -12.5% |

## ACTUARIAL ASSUMPTIONS AND METHODS

Below is a summary of the actuarial assumptions for the December 31, 2019 valuation. An experience study was performed in September of 2018 based on data for the period December 31, 2012 through December 31, 2017. The assumptions below are based on the experience study and were recommended by Foster & Foster Actuaries, and adopted by the Board of Trustees effective December 31, 2018.

| | |
|---|---|
| Interest Rate | 7.25% |
| Mortality Rates – Healthy & Disabled Lives | RP-2000 Combined Healthy Mortality Table with Generational Mortality Improvements (Scale AA). Female rates are adjusted by a factor of 1.04 and male rates are unadjusted. |
| Cost-of-Living Adjustment - Annuitants | |
| Members Hired On Or After January 1, 2011 | 1.25% |
| Members Hired Before January 1, 2011 | 3.00% |
| Inflation Rate | 2.50% |
| Payroll Growth | 3.00% |
| Salary Increases | See Table 1 |
| Retirement Rates | See Table 2 |
| Termination Rates | See Table 3 |
| Disability Rates | See Table 4 |
| Load for Reciprocal Benefits | 1.5% of active member costs and liabilities. |
| Assumed Administrative Expenses | Administrative expenses paid from the trust during the prior year. |
| Percent Married | 76% |
| Spousal Age Difference | Spouse of male member assumed to be 4 years younger than member; Spouse of female member assumed to be 4 years older than member. |

## ACTUARIAL ASSUMPTIONS AND METHODS, CONTINUED

| | |
|---|---|
| Actuarial Cost Method | Entry Age Normal, with costs allocated on basis of earnings. Actuarial gains and losses are reflected in the unfunded actuarial liability. |
| Actuarially Determined Contribution Requirement | Section 13-503. Employer's normal cost plus the annual amount needed to amortize the unfunded liability by the year 2050 as a level percent of payroll.<br><br>The funding goal is to attain a funded ratio of at least 100% by the year 2050. |
| Actuarial Asset Method | Market value of assets adjusted by the unrecognized investment gains and losses for each of the five years prior to the valuation date. Gains and losses are recognized at a rate of 20% per year. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets. |
| Payroll Growth | 3.00% |
| Assumed Administrative Expenses | Administrative expenses paid from the trust during the prior year. |
| Source of Data | Data and audited financial information is provided by the Fund. |
| Valuation Date | December 31, 2019. |

**Changes in Funding Assumptions/Methods Since the Prior Valuation**

The valuation reflects no assumption or method changes since the prior year.

## ACTUARIAL ASSUMPTIONS AND METHODS, CONTINUED

Table 1 – Salary Increase Rates

| Service | Salary Increase Rate |
|---|---|
| 0 | 7.00% |
| 1 | 6.50% |
| 2 | 5.75% |
| 3 | 5.50% |
| 4 | 5.25% |
| 5 | 6.00% |
| 6 | 5.00% |
| 7 | 4.75% |
| 8 | 4.50% |
| 9 | 4.25% |
| 10 | 5.00% |
| 11 - 14 | 4.00% |
| 15 | 5.00% |
| 16 - 19 | 4.00% |
| 20 | 5.00% |
| 21+ | 3.50% |

Table 2 – Retirement Rates

| Age | Retirement Rate |
|---|---|
| 50 - 59 | 7% |
| 60 | 20% |
| 61 - 64 | 10% |
| 65 | 15% |
| 66 | 18% |
| 67 | 25% |
| 68 | 15% |
| 69 | 30% |
| 70 | 35% |
| 71 - 74 | 20% |
| 75 | 100% |

Table 3 – Termination Rates

| Service | Male Rate | Female Rate |
|---|---|---|
| 0 | 5.00% | 7.75% |
| 1 | 3.50% | 6.75% |
| 2 | 3.50% | 5.75% |
| 3 | 2.60% | 4.75% |
| 4 | 2.24% | 4.52% |
| 5 | 2.15% | 4.49% |
| 6 | 1.75% | 4.19% |
| 7 | 1.70% | 3.94% |
| 8 | 1.65% | 3.74% |
| 9 | 1.55% | 3.54% |
| 10 | 1.55% | 3.34% |
| 11 | 1.55% | 3.14% |
| 12 | 1.45% | 2.94% |
| 13 | 1.40% | 2.85% |
| 14 | 1.35% | 2.52% |
| 15 | 1.20% | 2.52% |
| 16+ | 1.00% | 2.52% |

Table 4 – Disability Rates (Sample Rates)

| Age | Disability Rate |
|---|---|
| 20 | 0.002% |
| 25 | 0.003% |
| 30 | 0.006% |
| 35 | 0.014% |
| 40 | 0.033% |
| 45 | 0.065% |
| 50 | 0.120% |
| 55 | 0.225% |
| 60 | 0.490% |
| 65 | 0.000% |

## PLAN PROVISIONS

The following describe and reflect provisions in effect as described in Article 13 of the Illinois Pension Code. The provisions below reflect changes included in Public Act 96-0889 and Public Act 96-1490, which created the second "tier" of benefits for members hired on or after January 1, 2011 and provided clarifying changes.

| | |
|---|---|
| Eligibility | All employees of the District whose duties indicate service during the calendar year for a minimum of 120 days are eligible. |
| Normal Retirement Eligibility | Hired before January 1, 2011: Age 60 and 5 years of service<br><br>Hired on or after January 1, 2011: Age 67 and 10 years of service |
| Normal Retirement Benefit | The annual benefit payable immediately is equal to the sum of:<br>(a) 2.2% of Average Final Salary for each year of service up to 20 years.<br><br>(b) 2.4% of Average Final Salary for each year of service in excess of 20 years<br><br>The benefit shall not exceed 80% of Average Final Salary. |
| Early Retirement Eligibility | Hired before January 1, 2011: Age 55 (50 if hired before June 13, 1997) and 10 years of service<br><br>Hired on or after January 1, 2011: Age 62 and 10 years of service |
| Early Retirement Benefit | Normal Retirement Benefit reduced as follows:<br><br>Hired before January 1, 2011: If member retires before reaching age 60 with less than 30 years of service, 0.5% for each full month the member is less than age 60 or service is less than 30 years, whichever is less.<br><br>Hired on or after January 1, 2011: 0.5% per month the member is less than age 67 |
| Deferred Retirement Eligibility | Tier 1: Age 55 (50 if hired before June 13, 1997) and 5 years of service. Tier 2: 10 years of service |

| | |
|---|---|
| Deferred Retirement Benefit | The annual benefit payable at the following ages:<br><br>Hired before January 1, 2011:<br><br>Age 62, if withdraw on or after age 55 (50 if hired before June 13, 1997) with at least 5 years of service and less than 10 years<br><br>Age 55 (50 if hired before June 13, 1997), if withdraw with 10 years of service<br><br>Hired on or after January 1, 2011: Age 62, if withdraw with 10 years of service<br><br>The annual benefit amount equals the Normal Retirement Benefit reduced with Early Retirement Reductions. |
| Minimum Retirement Annuity | 10 years of service: $500 per month plus $25 per month for each year of service in excess of 10 years, not to exceed $750 with 20 years of service<br><br>Less than 10 years of service or retirement before age 60: $250 per month |
| Duty Disability Eligibility | Member incurs injury or sickness due to employment with the District and is compensable under the Workers' Compensation Act or the Occupational Disease Act. |
| Duty Disability Benefit | 75% of salary earned on the date of disability, less the amount paid by Workers' Compensation<br><br>Benefit is 50% of salary if disability resulted from physical defect or disease that existed at the time injury was sustained.<br><br>Benefits are payable during period of disablement, but not beyond attainment of age 65. If disability occurs at age 60 or older, benefits are payable for a maximum of 5 years. |
| Ordinary Disability Eligibility | Member becomes disabled due to any cause other than injury or illness incurred in the performance of duty. |
| Ordinary Disability Benefit | 50% of earnable salary at the date of disability<br><br>Member may receive ordinary disability benefits for a maximum period of the lesser of 25% of member's actual service prior to disablement or 5 years. |

| | |
|---|---|
| Surviving Spouse Annuity Eligibility | Hired before June 13, 1997: Immediately eligible if married to member on date of member's death while in service or married to member on member's date of termination from service and remained married until member's death. Dissolution of marriage after retirement shall not divest the member's spouse of entitlement if marriage was in effect for at least 10 years on the date of retirement.<br><br>Hired on or after June 13, 1997: Eligible after 3 years of service. Conditions for marriage described for members hired prior to June 13, 1997 apply. |
| Surviving Spouse Benefit | Hired before January 1, 2011: Retirement annuity earned at the time of death multiplied by a factor of 60% plus 1% for each year of member's total service, to a maximum of 85%. If hired after January 1, 1992, annuity is reduced by 0.25% for each full month spouse is younger than member to maximum reduction of 60%. Discount is reduced by 10% for each year marriage is in effect.<br><br>Hired on or after January 1, 2011: 66 2/3% of retirement annuity earned at the time of death. |
| Minimum Surviving Spouse Annuity | Member with 10 years of service: greater of (a) $500 per month plus $25 per month for each year of service in excess of 10, not to exceed $750 per month, or (b) 50% of the retirement annuity of member at time of death.<br><br>Member with less than 10 years of service: $250 per month. |
| Children's Annuity Eligibility | Member parent dies in service or deceased parent was former member with at least 10 years of service. Child is unmarried and less than age 18 (23, if full-time student). |
| Children's Annuity Benefit | $500 per month for each child if have living parent and $1,000 per month for each child if neither parent is living to a maximum of $5,000 per month. |

Cost-of-Living Adjustments

Hired before January 1, 2011: Retirement annuity is increased on the anniversary of retirement by 3% of the monthly annuity payable at the time of increase.

Spouse annuity is increased on the earlier of the anniversary of the member's death or retirement (whichever occurs first) by 3% of the monthly annuity payable at the time of increase.

Hired on or after January 1, 2011: increase percentage is the lesser of 3% or ½ the increase in CPI-U during the previous calendar year. Increase is based on the originally granted retirement or spouse's annuity.

Member Contributions – retiree annuity

| Pay period: | Contribution % Annuity: | Contribution % Annual Inc.: |
|---|---|---|
| Before January 1, 2013 | 7.0% | 0.5% |
| During calendar year 2013 | 7.5% | 1.0% |
| During calendar year 2014 | 8.0% | 1.5% |
| During calendar year 2015 and until fund is 90% funded | 8.5% | 1.5% |
| After fund is 90% funded | 7.0% | 0.5% |

Members hired on or after January 1, 2011 have member contributions of 7.5% (7.0% of pay for the annuity and 0.5% of pay for annual increases).

Member Contributions – spouse annuity

| Pay period: | Contribution percentage: |
|---|---|
| Before January 1, 2015 | 1.5% |
| During calendar year 2015 and until fund is 90% funded | 2.0% |
| After fund is 90% funded | 1.5% |

Members hired on or after January 1, 2011 contribute 1.5% of pay.

| | |
|---|---|
| Refund to Member upon Termination | Hired before January 1, 2011: Eligible for refund of all member contributions without interest if under age 55 (50 if hired before June 13, 1997); if age 60 with less than 20 years of service; or if 60 with less than 5 years of service. Upon receipt of refund, member forfeits rights to benefits from the Fund.<br>Hired on or after January 1, 2011: Eligible for refund of all member contributions without interest if under age 62; or if have less than 10 years of service on termination. Upon receipt of refund, member forfeits rights to benefits from the Fund. |
| Refund for Surviving Spouse's Annuity | Members unmarried at the time of retirement will receive a refund of contributions for spouse annuity with interest at 3% per year, compounded annually. |
| Refund of Remaining Amounts | If upon death the total amount contributed by the member with 3% interest per year has not been paid to the member, the spouse or designated beneficiaries or estate receives a refund of the excess amount. |
| Required Tax Levy – Illinois Pension Code | Lesser of actuarially determined contribution and 4.19 multiplied by total member contributions for the two years prior. |
| District's Funding Policy | Effective August 27, 2014, the District implemented a policy of contributing an amount equal to 4.19 multiplied by total member contributions for the two years prior until the Fund reaches a funded ratio of 100%. |
| Pension Service | Any employment, excluding overtime or extra service for which salary is received. |
| Average Final Salary | Hired before January 1, 2011: Highest average annual salary for any 52 consecutive bi-weekly pay periods within the last 10 years of service immediately preceding the date of retirement.<br><br>Hired on or after January 1, 2011: Highest average annual salary for 96 consecutive months of service within last 120 months of service, limited to $106,800 (automatically increased by lesser of 3% or ½ the increase in CPI-U during the previous calendar year). |

| | |
|---|---|
| Pensionable Salary | Salary paid to a Fund member for service to the District or to the Fund, including salary paid for vacation and sick leave and any amounts deferred under a deferred compensation plan established under the Code, but excluding the following: payment for unused vacation or sick leave, overtime pay, termination pay and any compensation in the form of benefits other than salary.<br><br>Salary for members hired on or after January 1, 2011 is subject to the salary limitations established in the Illinois Pension Code. For calendar year 2020, the statutory salary limitation is $115,928.92. |

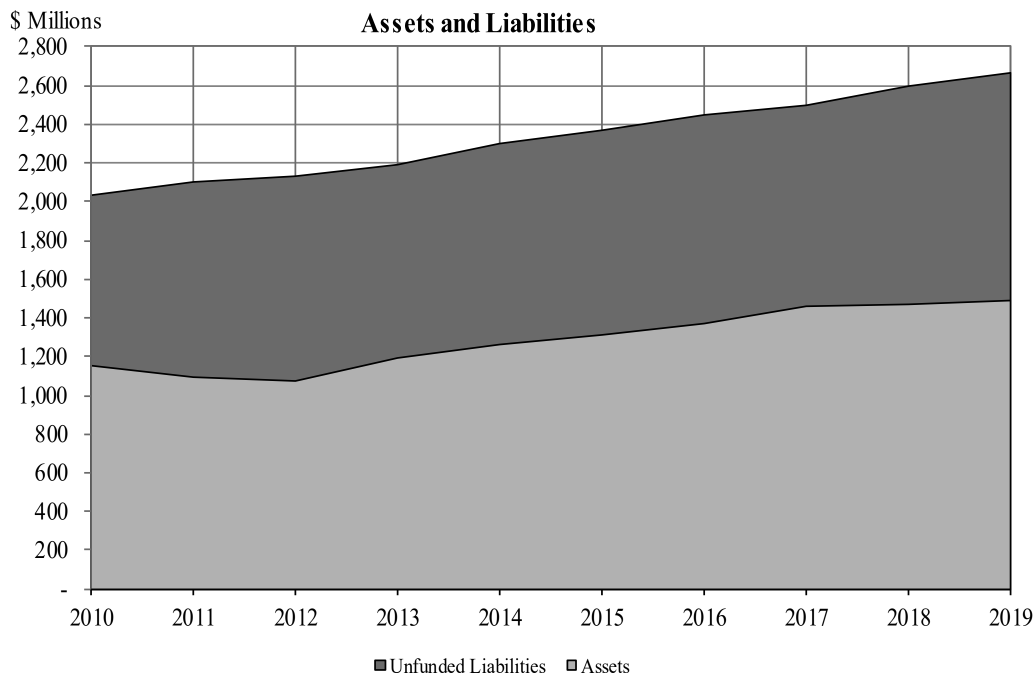
## Changes in Fund Provisions Since the Prior Valuation

- None

**SCHEDULE OF FUNDING PROGRESS**
**(Actuarial Funding - Going Concern, Entry Age Normal Method)**

| Year End | Total Actuarial Accrued Liability (AAL) | Actuarial Value of Assets [1] | Funded Ratio | Unfunded AAL (UAAL) | Active Pensionable Payroll[3] | UAAL as a % of Payroll |
|---|---|---|---|---|---|---|
| 2010 [2] | 2,036,679,763 | 1,151,595,245 | 56.5% | 885,084,518 | 174,485,734 | 507.3% |
| 2011 | 2,101,319,098 | 1,097,397,206 | 52.2% | 1,003,921,892 | 164,275,424 | 611.1% |
| 2012 [2] | 2,136,508,223 | 1,076,740,164 | 50.4% | 1,059,768,059 | 163,816,934 | 646.9% |
| 2013 | 2,194,911,693 | 1,188,503,716 | 54.1% | 1,006,407,977 | 169,375,857 | 594.2% |
| 2014 [2] | 2,296,438,698 | 1,263,287,068 | 55.0% | 1,033,151,630 | 176,183,941 | 586.4% |
| 2015 | 2,371,031,195 | 1,307,982,039 | 55.2% | 1,063,049,156 | 177,792,309 | 597.9% |
| 2016 | 2,443,291,644 | 1,372,361,950 | 56.2% | 1,070,929,694 | 182,640,163 | 586.4% |
| 2017 | 2,497,890,179 | 1,456,195,876 | 58.3% | 1,041,694,303 | 184,385,188 | 565.0% |
| 2018 [2] | 2,601,163,632 | 1,470,308,639 | 56.5% | 1,130,854,993 | 187,849,708 | 602.0% |
| 2019 | 2,666,221,630 | 1,489,266,144 | 55.9% | 1,176,955,486 | 189,961,010 | 619.6% |

[1] Assets are stated at a 5-year smoothed market value.
[2] Change in actuarial assumptions.
[3] Payroll is annualized based on actual payroll paid to active members on the last paydate of the year.




The table and graph above illustrate the growth of the unfunded liability over the last ten years. The unfunded AAL (UAAL) as a percentage of active member payroll, the last column of the table above, provides a helpful index which shows the smaller the ratio, the stronger the Fund. Observation of the trend of this index will give an indication of whether the Fund is becoming financially stronger or weaker.

## SOLVENCY TEST

The prioritized solvency test is another means of checking a system's progress under its funding program. It shows the percentage of future benefit promises that are covered by the current Actuarial Value of Assets. In a short-term solvency test the plan's present assets (cash and investments) are compared with actuarial accrued liabilities classified into the following categories:

1. liability for active member contributions on deposit;
2. liability for future benefits to present retired lives; and
3. liability for the employer financed portion of service already rendered by active members.

If a system has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (i.e. the present value of liability 1) and the liabilities for future benefits to present retired lives (i.e. the present value of liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for the employer financed portion of benefits for present active members (i.e. the present value of liability 3) will normally be partially covered by the remainder of present assets. In addition, if a system has been using a level cost financing, the funded portion of the present value of liability 3 will increase over time. The Fund has not received employer contributions according to level cost financing, but rather has been financed in accordance with Illinois statutes.

| | Actuarial Accrued Liabilities | | | | Portion of Liabilities Covered by Assets | | |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | | (1) | (2) | (3) |
| Year Ended | Active and Inactive Member Contributions | Retirees and Survivors | Active and Inactive Members (ER Financed) | Actuarial Value of Assets | Active and Inactive Member Contributions | Retirees and Survivors | Active and Inactive Members (ER Financed) |
| 12/31/2010 | 206,933,701 | 1,313,366,530 | 516,379,532 | 1,151,595,245 | 100% | 72% | 0% |
| 12/31/2011 | 199,015,897 | 1,433,294,765 | 469,008,436 | 1,097,397,206 | 100% | 63% | 0% |
| 12/31/2012 | 213,323,414 | 1,431,829,221 | 491,355,588 | 1,076,740,164 | 100% | 60% | 0% |
| 12/31/2013 | 223,354,127 | 1,463,856,177 | 507,701,389 | 1,188,503,716 | 100% | 66% | 0% |
| 12/31/2014 | 231,430,077 | 1,541,326,692 | 422,154,924 | 1,263,287,068 | 100% | 67% | 0% |
| 12/31/2015 | 236,967,954 | 1,616,195,435 | 517,867,805 | 1,307,982,039 | 100% | 66% | 0% |
| 12/31/2016 | 244,239,334 | 1,676,732,070 | 522,320,240 | 1,372,361,950 | 100% | 67% | 0% |
| 12/31/2017 | 247,730,731 | 1,745,598,298 | 504,561,150 | 1,456,195,876 | 100% | 69% | 0% |
| 12/31/2018 | 251,845,144 | 1,843,563,888 | 505,754,600 | 1,470,308,639 | 100% | 66% | 0% |
| 12/31/2019 | 251,719,321 | 1,929,940,867 | 484,561,442 | 1,489,266,144 | 100% | 64% | 0% |

### HISTORY OF CHANGE IN UNFUNDED LIABILITY
### (Actuarial Funding - Going Concern, Entry Age Normal Method)

| Year | Salary Scale | Investment Returns[1] | Employer Contribution[2] | Legislative Amendments |
|---|---|---|---|---|
| 2010 | (20,417,059) | 49,969,954 | 46,822,864 | - |
| 2011 | (25,334,699) | 71,034,993 | 49,402,422 | - |
| 2012 | (23,145,806) | 58,584,984 | 31,300,739 | - |
| 2013 | (6,368,436) | (48,963,802) | 3,395,524 | - |
| 2014 | (5,667,229) | (26,867,032) | 16,960,113 | - |
| 2015 | (3,201,181) | 3,056,008 | 17,070,881 | - |
| 2016 | (844,096) | (15,960,567) | 9,554,045 | - |
| 2017 | (11,576,111) | (27,925,002) | 154,718 | - |
| 2018 | (7,369,068) | 40,260,410 | 540,397 | - |
| 2019 | (4,517,433) | 23,071,682 | 4,872,323 | - |
| | $ (108,441,118) | $ 126,261,628 | $ 180,074,026 | $ - |

| Year | Changes in Actuarial Assumptions | (see assumption reference key 3) | All Other Miscellaneous Experience | Total Increase (Decrease) in Unfunded Liability |
|---|---|---|---|---|
| 2010 | 39,769,482 | (m, r, t) | 7,577,298 | 123,722,539 |
| 2011 | - | | 23,734,658 | 118,837,374 |
| 2012 | 7,171,009 | (d) | (18,064,759) | 55,846,167 |
| 2013 | | | (1,423,368) | (53,360,082) |
| 2014 | 32,494,969 | (i, m, r, s, t, d) | 9,822,832 | 26,743,653 |
| 2015 | - | | 12,971,818 | 29,897,526 |
| 2016 | - | | 15,131,156 | 7,880,538 |
| 2017 | - | | 10,111,004 | (29,235,391) |
| 2018 | 37,438,859 | (i, m, r, s, t) | 18,920,092 | 89,790,690 |
| 2019 | - | | 22,673,921 | 46,100,493 |
| | $ 116,874,319 | | $ 101,454,652 | $ 416,223,507 |

[1] Represents investment income deficiency (excess) over expected returns.

[2] Represents employer contributions deficiency (excess) from normal cost plus interest.

[3] Key to changes in assumptions:

| | |
|---|---|
| i = interest rate | d=disability assumption |
| r = retirement rates | s = salary |
| m = mortality | rb = reciprocal benefits |
| p = pension for survivors | t = termination rates |

The table above illustrates that over the last 10 years, the unfunded liability has increased by $416.2 million. Of this increase, $126.3 million has been due to investment returns being lower than assumed and $180.1 million has been due to employer contributions that were less than normal cost plus interest on the UAAL. These increases in the unfunded liability, plus the effects of other actuarial experience, were partially offset by a $108.4 million reduction for overall salary increases being less than assumed over the last ten years.

During the year 2019 the unfunded liability increased by $46.1 million due to a combination of investment returns lower than assumed and all other actuarial experience.

### HISTORY OF ACTIVE MEMBER VALUATION DATA

| Year End | Members in Service | % Change | Annual Payroll[1] | % Change | Average Salary | % Change | Actuarial Salary % Increase[3] | CPI Chicago[2] |
|---|---|---|---|---|---|---|---|---|
| 2010 | 2,024 | (2.8) | 174,485,734 | (1.4) | 86,208 | 1.5 | 5.0 | 1.4 |
| 2011 | 1,888 | (6.7) | 164,275,424 | (5.9) | 87,010 | 0.9 | 5.0 | 2.7 |
| 2012 | 1,856 | (1.7) | 163,816,934 | (0.3) | 88,263 | 1.4 | 5.0 | 1.5 |
| 2013 | 1,858 | 0.1 | 169,375,857 | 3.4 | 91,160 | 3.3 | 5.0 | 1.1 |
| 2014 | 1,873 | 0.8 | 176,183,941 | 4.0 | 94,065 | 3.2 | Range | 1.7 |
| 2015 | 1,846 | (1.4) | 177,792,309 | 0.9 | 96,312 | 2.4 | Range | (0.3) |
| 2016 | 1,843 | (0.2) | 182,640,163 | 2.7 | 99,099 | 2.9 | Range | 0.7 |
| 2017 | 1,835 | (2.0) | 184,385,188 | 4.7 | 100,482 | 6.8 | Range | 1.9 |
| 2018 | 1,832 | (0.8) | 187,849,708 | 5.7 | 102,538 | 6.5 | Range | 1.8 |
| 2019 | 1,817 | (1.4) | 189,961,010 | 4.0 | 104,547 | 5.5 | Range | 1.5 |

[1] Payroll is annualized based on actual pensionable salary paid to active members on the last paydate of the year.
[2] Represents average annual change in Consumer Price Index (CPI-U All Urban Consumers for Chicago-Gary-Kenosha) per the U.S. Bureau of Labor Statistics through 2016. The Index was renamed to CPI-U All Urban Consumers for Chicago-Naperville-Elgin, IL-IN-WI in 2017.
[3] As of the December 31, 2014 valuation, the salary increase assumption was updated from a flat 5.0% to a table of rates from 3.5%-7.0% based on years of service.

## HISTORY OF EMPLOYER CONTRIBUTIONS

| Year Ended | Actuarially Determined Contribution for Fiscal Year End | Tax Levy | Employer Contribution[1] | % of Actuarially Determined Contribution Contributed | Estimated Multiplier Necessary to Match ADC |
|---|---|---|---|---|---|
| 12/31/2010 | 61,872,925 | 32,307,000 | 29,917,793 | 48.35% | 4.19 |
| 12/31/2011 | 69,393,171 | 34,362,000 | 37,379,137 | 53.87% | 4.42 |
| 12/31/2012 | 74,828,844 | 34,761,000 | 65,097,835 | 87.00% | 2.82 |
| 12/31/2013 | 74,774,148 | 62,984,000 | 92,944,381 | 124.30% | 2.98 |
| 12/31/2014 | 69,924,438 | 61,654,000 | 73,906,168 | 105.69% | 3.94 |
| 12/31/2015 | 62,603,576 | 70,772,000 | 71,041,361 | 113.48% | 3.71 |
| 12/31/2016 | 64,596,066 | 79,505,000 | 80,259,713 | 124.25% | 3.40 |
| 12/31/2017 | 65,727,912 | 89,604,000 | 89,858,224 | 136.71% | 3.07 |
| 12/31/2018 | 64,988,583 | 87,281,000 | 87,167,339 | 134.13% | 3.12 |
| 12/31/2019 | 74,279,999 | 87,319,000 | 87,446,476 | 117.73% | 3.56 |

[1] In 2012, 2013 and 2014 the Fund received special contributions of $30.0 million, $30.0 million and $12.0 million, respectively, from the District in addition to the tax levy based on the statutory multiple.

## HISTORY OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM BENEFIT PAYROLL

### Employee Annuitants (Male and Female)

| | Added to Payroll | | Removed from Payroll | | Annual Payroll | | Average | Increase |
|---|---|---|---|---|---|---|---|---|
| Year | No. | Annuity Benefits [1] | No. | Annuity Benefits | No. | Annuity Benefits [2] | Annuity Benefits | to Avg Benefits |
| 2010 | 72 | 6,730,274 | 65 | 2,721,715 | 1,603 | 91,846,476 | 57,297 | 4.1 |
| 2011 | 146 | 12,073,715 | 66 | 2,827,418 | 1,683 | 101,092,773 | 60,067 | 4.8 |
| 2012 | 60 | 6,027,239 | 62 | 3,098,526 | 1,681 | 104,021,486 | 61,881 | 3.0 |
| 2013 | 75 | 6,497,171 | 52 | 2,345,133 | 1,704 | 108,173,524 | 63,482 | 2.6 |
| 2014 | 80 | 7,583,277 | 55 | 2,677,032 | 1,729 | 113,079,769 | 65,402 | 3.0 |
| 2015 | 101 | 9,640,885 | 70 | 3,828,434 | 1,760 | 118,892,220 | 67,552 | 3.3 |
| 2016 | 87 | 8,688,540 | 68 | 4,089,312 | 1,779 | 123,491,448 | 69,416 | 2.8 |
| 2017 | 98 | 20,067,179 | 68 | 3,780,260 | 1,809 | 129,366,688 | 71,513 | 3.0 |
| 2018 | 99 | 6,049,960 | 60 | 3,769,202 | 1,848 | 135,435,622 | 73,288 | 2.5 |
| 2019 | 94 | 10,830,012 | 59 | 3,941,499 | 1,883 | 142,324,135 | 75,584 | 3.1 |

### Surviving Spouse Annuitants (Male and Female)

| | Added to Payroll | | Removed from Payroll | | Annual Payroll | | Average | Increase |
|---|---|---|---|---|---|---|---|---|
| Year | No. | Annuity Benefits [1] | No. | Annuity Benefits | No. | Annuity Benefits [2] | Annuity Benefits | to Avg Benefits |
| 2010 | 28 | 1,433,075 | 34 | 602,769 | 632 | 16,893,011 | 26,729 | 6.2 |
| 2011 | 34 | 1,528,506 | 38 | 460,244 | 628 | 17,961,273 | 28,601 | 7.0 |
| 2012 | 38 | 1,969,114 | 47 | 858,542 | 619 | 19,071,845 | 30,811 | 7.7 |
| 2013 | 29 | 1,718,098 | 43 | 1,021,552 | 605 | 19,768,391 | 32,675 | 6.1 |
| 2014 | 28 | 1,846,441 | 40 | 931,782 | 593 | 20,683,050 | 34,879 | 6.7 |
| 2015 | 34 | 2,313,674 | 47 | 1,160,738 | 580 | 21,835,986 | 37,648 | 7.9 |
| 2016 | 42 | 3,096,415 | 32 | 1,162,089 | 590 | 23,770,312 | 40,289 | 7.0 |
| 2017 | 25 | 3,925,789 | 39 | 1,146,717 | 576 | 24,615,058 | 42,734 | 6.1 |
| 2018 | 30 | 1,798,261 | 35 | 1,046,607 | 571 | 25,965,116 | 45,473 | 6.4 |
| 2019 | 28 | 2,408,555 | 38 | 1,246,555 | 561 | 27,127,117 | 48,355 | 6.3 |

[1] Includes 3% annual Cost of Living Adjustments (COLAs) for employee annuitants and for surviving spouse annuitants.

[2] Annual payroll is an annualized amount and represents twelve times the December 1st paid annuities.

# STATISTICAL SECTION

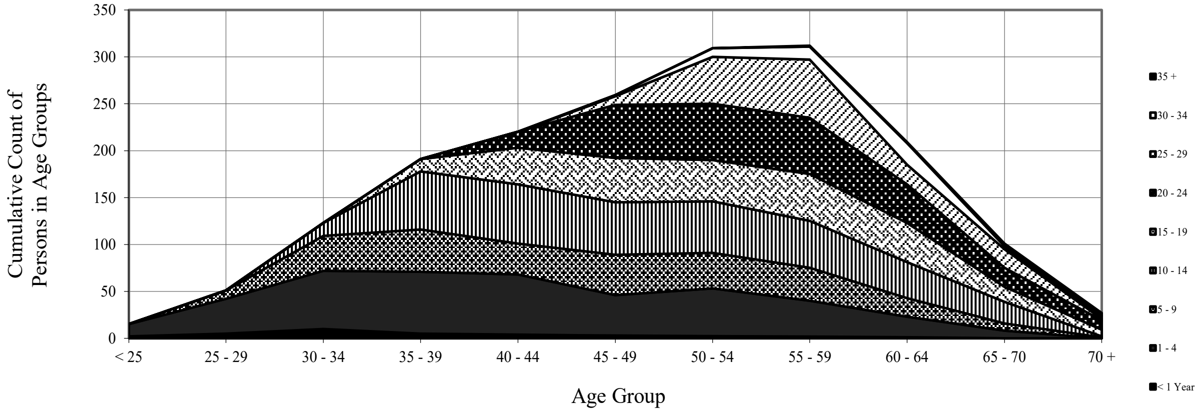
## PARTICIPANT STATISTICS
## Year 2019

| Changes in Active Participants | Number at Beginning of Year | Additions | Decreases | Number at Year End |
|---|---|---|---|---|
| **Tier 1** | | | | |
| Male | 964 | 8 | 74 | 898 |
| Female | 358 | 0 | 31 | 327 |
| Total Active | 1,322 | 8 | 105 | 1,225 |
| **Tier 2** | | | | |
| Male | 384 | 71 | 9 | 446 |
| Female | 126 | 28 | 8 | 146 |
| Total Active | 510 | 99 | 17 | 592 |
| **Total Active** | | | | |
| Male | 1,348 | 79 | 83 | 1,344 |
| Female | 484 | 28 | 39 | 473 |
| Total Active | 1,832 | 107 | 122 | 1,817 |
| | | | | |
| **Changes in Annuitants and Beneficiaries** | | | | |
| Employee Annuitants | 1,848 | 94 | 59 | 1,883 |
| Spouse Annuitants | 571 | 28 | 38 | 561 |
| Child Annuities | 24 | 2 | 5 | 21 |
| Total Annuitants | 2,443 | 124 | 102 | 2,465 |
| | | | | |
| **Percentage of Active Participants to Annuitants and Beneficiaries** | 75.0% | | | 73.7% |

The above schedule provides details about the changes in the number and gender of active participants, as well as the changes in the number and type of annuitants for the year. A percentage of active participants to annuitants less than 100% indicates that there are more retirees/payees than working members of the Fund.

## EMPLOYEE AGE AND SERVICE DISTRIBUTION
## ACTIVE MEMBER COUNT & PENSIONABLE SALARIES - BY AGE AND SERVICE
### Male and Female Combined

### 12/31/19




| AGE | YEARS OF SERVICE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | < 1 | 1 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 - 34 | 35 + | Total |
| < 25 | 2 | 13 | | | | | | | | 15 |
| | $55,756 | $68,561 | | | | | | | | $66,854 |
| 25-29 | 5 | 37 | 9 | | | | | | | 51 |
| | 88,437 | 66,422 | $88,421 | | | | | | | 72,463 |
| 30-34 | 10 | 62 | 37 | 14 | | | | | | 123 |
| | 87,798 | 78,103 | 87,584 | 109,065 | | | | | | 85,266 |
| 35-39 | 5 | 66 | 45 | 62 | 13 | | | | | 191 |
| | 86,033 | 85,768 | 94,365 | 112,278 | $125,165 | | | | | 99,087 |
| 40-44 | 4 | 64 | 33 | 63 | 39 | 17 | | | | 220 |
| | 93,057 | 92,652 | 97,611 | 106,537 | 116,327 | $118,179 | | | | 103,549 |
| 45-49 | 3 | 43 | 43 | 56 | 47 | 57 | 9 | 1 | | 259 |
| | 72,059 | 92,741 | 97,881 | 107,066 | 122,075 | 127,383 | $160,010 | $120,502 | | 111,844 |
| 50-54 | 2 | 51 | 38 | 55 | 44 | 60 | 50 | 9 | | 309 |
| | 74,220 | 92,144 | 97,840 | 102,472 | 103,723 | 123,077 | 119,025 | 118,102 | | 107,328 |
| 55-59 | 2 | 38 | 35 | 50 | 50 | 60 | 62 | 14 | 1 | 312 |
| | 79,966 | 86,340 | 99,342 | 98,463 | 114,843 | 126,038 | 128,272 | 128,911 | $104,341 | 112,203 |
| 60-64 | 1 | 22 | 20 | 38 | 42 | 41 | 21 | 23 | 1 | 209 |
| | 105,872 | 93,828 | 101,170 | 96,812 | 106,908 | 120,475 | 118,058 | 125,151 | 91,978 | 108,859 |
| 65-69 | | 8 | 8 | 23 | 16 | 20 | 20 | 3 | 3 | 101 |
| | | 76,709 | 83,874 | 94,375 | 108,466 | 111,953 | 112,446 | 131,498 | 139,792 | 103,886 |
| 70 + | | | 1 | 1 | 7 | 10 | 2 | 3 | 3 | 27 |
| | | | 62,566 | 120,466 | 90,917 | 98,714 | 90,437 | 115,499 | 116,954 | 99,438 |
| Total Number | 34 | 404 | 269 | 362 | 258 | 265 | 164 | 53 | 8 | 1,817 |
| Average Salary | $84,250 | $85,217 | $95,408 | $104,212 | $112,672 | $122,198 | $123,495 | $124,672 | $120,819 | $104,546 |

The above table provides detail about the number of active members categorized in 5-year bands of age and years of service. The above chart illustrates that the largest age segment of active members is 55-59 years of age with average pensionable salary of $112,203. By years of service, the largest segment of active members has 1 - 4 years of service with an average pensionable salary of $85,217.

## SCHEDULE OF ANNUITANTS BY TYPE OF BENEFIT
**as of December 31, 2019**

| Amount of Monthly Benefit | Number of Beneficiaries | Type of Benefit * — Retirees 1 | Retirees 2 | Survivors 3 | Survivors 4 | Survivors 5 | Children 6 |
|---|---|---|---|---|---|---|---|
| $1 - $500 | 86 | 37 | 2 | 16 | 9 | 1 | 21 |
| 501 - 1,000 | 68 | 35 | 1 | 22 | 10 | | |
| 1,001 - 2,000 | 211 | 104 | 1 | 66 | 40 | | |
| 2,001 - 3,000 | 204 | 128 | | 53 | 23 | | |
| 3,001 - 4,000 | 244 | 179 | | 52 | 13 | | |
| 4,001 - 5,000 | 280 | 207 | | 57 | 16 | | |
| 5,001 - 6,000 | 325 | 266 | | 54 | 5 | | |
| 6,001 - 7,000 | 300 | 246 | | 47 | 7 | | |
| 7,001 - 8,000 | 221 | 201 | | 18 | 2 | | |
| 8,001 - 9,000 | 173 | 155 | | 18 | 0 | | |
| 9,001 - 10,000 | 89 | 80 | | 7 | 2 | | |
| over - 10,000 | 264 | 241 | | 20 | 3 | | |
| Totals | 2,465 | 1,879 | 4 | 430 | 130 | 1 | 21 |

* Type of Benefit

1. Normal Retirement for Age and Service
2. Disability Annuity
3. Survivor Benefit - Normal
4. Survivor Benefit - Death in Service
5. Survivor Benefit – Fixed Term Annuity
6. Children

The above schedule provides detail about the number, amount, and type of monthly benefits paid by the Fund in the last pay period of the year.

## HISTORY OF ANNUITANTS BY TYPE OF BENEFIT
**at Year End**

| Year | Employee Annuitants [1] | Spouse Annuitants [1,2] | Child Annuitants | Total Annuitants | Ordinary Disability | Duty Disability |
|---|---|---|---|---|---|---|
| 2010 | 1,603 | 632 | 13 | 2,248 | 20 | 23 |
| 2011 | 1,683 | 628 | 17 | 2,328 | 18 | 22 |
| 2012 | 1,681 | 619 | 17 | 2,317 | 20 | 23 |
| 2013 | 1,704 | 605 | 20 | 2,329 | 18 | 17 |
| 2014 | 1,729 | 593 | 21 | 2,343 | 16 | 16 |
| 2015 | 1,760 | 580 | 19 | 2,359 | 16 | 14 |
| 2016 | 1,779 | 590 | 25 | 2,394 | 12 | 11 |
| 2017 | 1,809 | 576 | 23 | 2,408 | 23 | 7 |
| 2018 | 1,848 | 571 | 24 | 2,443 | 19 | 13 |
| 2019 | 1,883 | 561 | 21 | 2,465 | 13 | 7 |

[1] Includes reciprocal annuitants
[2] Includes reversionary annuitants

The above schedule provides historical perspective about the number and types of beneficiaries paid by the Fund in the last pay period of the year.

## HISTORY OF ANNUITY PAYMENTS
## at Year End

| | Employee Annuitants (Male and Female) | | Spouse Annuitants (Male and Female) | |
|---|---|---|---|---|
| Year | Number of Annuitants | Annuity Payments [1] | Number of Annuitants | Annuity Payments [1] |
| 2010 | 1,603 | 91,846,476 | 632 | 16,893,011 |
| 2011 | 1,683 | 101,092,773 | 628 | 17,961,273 |
| 2012 | 1,681 | 104,021,486 | 619 | 19,071,845 |
| 2013 | 1,704 | 108,173,524 | 605 | 19,768,391 |
| 2014 | 1,729 | 113,079,769 | 593 | 20,683,050 |
| 2015 | 1,760 | 118,892,219 | 580 | 21,835,988 |
| 2016 | 1,779 | 123,491,448 | 590 | 23,770,312 |
| 2017 | 1,809 | 129,366,689 | 576 | 24,615,058 |
| 2018 | 1,848 | 135,435,625 | 571 | 25,965,116 |
| 2019 | 1,883 | 142,324,135 | 561 | 27,127,167 |

[1] Payments are annualized, computed as twelve times the December 1st annuity payment.

The above schedule provides historical perspective about the number, type, and annual amount of annuity payments made by the Fund.

## ANNUITANTS BY AGE AND GENDER
### as of December 31, 2019

### Retirement Annuities

| Age | Number of Males | Annual Payments [1] | Average Annual Payments | Number of Females | Annual Payments [1] | Average Annual Payments |
|---|---|---|---|---|---|---|
| under 45 | - | $ - | $ - | - | $ - | $ - |
| 45 - 49 | - | - | - | - | - | - |
| 50 - 54 | 19 | 1,582,913 | 83,311 | 15 | 1,026,409 | 68,427 |
| 55 - 59 | 95 | 7,454,594 | 78,469 | 55 | 3,920,401 | 71,280 |
| 60 - 64 | 180 | 14,310,498 | 79,503 | 70 | 4,821,267 | 68,875 |
| 65 - 69 | 246 | 18,982,127 | 77,163 | 79 | 4,666,082 | 59,064 |
| 70 - 74 | 322 | 28,240,766 | 87,704 | 102 | 6,367,161 | 62,423 |
| 75 - 79 | 264 | 20,922,099 | 79,250 | 61 | 3,047,110 | 49,953 |
| 80 - 84 | 150 | 11,974,167 | 79,828 | 35 | 1,618,978 | 46,257 |
| 85 - 89 | 105 | 8,351,130 | 79,535 | 26 | 1,273,390 | 48,977 |
| 90 & up | 50 | 3,477,888 | 69,558 | 9 | 287,155 | 31,906 |
| Total | 1,431 | $ 115,296,182 | $ 80,570 | 452 | $ 27,027,953 | $ 59,796 |
| Average Age | 73.0 | | | 70.4 | | |

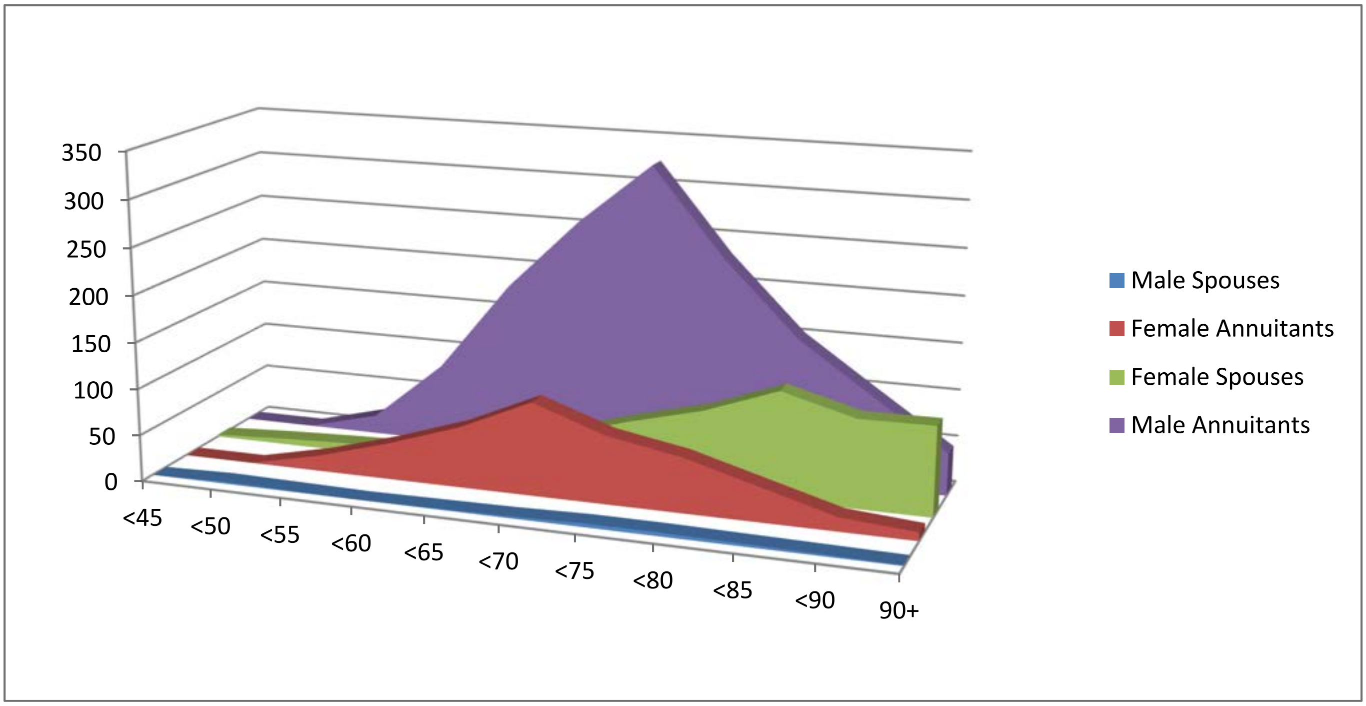
### Spouse Annuities

| Age | Number of Males | Annual Payments [1] | Average Annual Payments | Number of Females | Annual Payments [1] | Average Annual Payments |
|---|---|---|---|---|---|---|
| under 45 | 0 | $ - | $ - | 1 | $ 50,995 | $ 50,995 |
| 45 - 49 | 0 | - | - | 4 | 151,158 | 37,790 |
| 50 - 54 | 2 | 14,415 | 7,208 | 13 | 585,141 | 45,011 |
| 55 - 59 | 1 | 4,501 | 4,501 | 12 | 491,504 | 40,959 |
| 60 - 64 | 1 | 155,853 | 155,853 | 25 | 1,442,846 | 57,714 |
| 65 - 69 | 1 | 16,145 | 16,145 | 39 | 1,902,923 | 48,793 |
| 70 - 74 | 4 | 230,727 | 57,682 | 61 | 4,003,256 | 65,627 |
| 75 - 79 | 6 | 200,175 | 33,363 | 87 | 4,300,245 | 49,428 |
| 80 - 84 | 5 | 145,353 | 29,071 | 118 | 6,415,584 | 54,369 |
| 85 - 89 | 0 | - | - | 79 | 3,691,505 | 46,728 |
| 90 & up | 1 | 63,529 | 63,529 | 101 | 3,261,258 | 32,290 |
| Total | 21 | $ 830,698 | $ 39,557 | 540 | $ 26,296,415 | $ 48,697 |
| Average Age | 73.6 | | | 79.9 | | |

[1] Payments are annualized, computed as twelve times the December 1st annuity payment.

The above schedules provide detail about the age, gender and average annual amounts paid to annuitants by the Fund in the current year. The age and gender information above is graphically represented on the following page.

**ANNUITANTS BY AGE AND GENDER**
(Reflects the data on the previous page)




**HISTORY OF AVERAGE ANNUITIES AT RETIREMENT**

| Retirement Year | Number of Retirees[1] | Average Retirement Age[2] | Average Years of MWRDGC Service[2] | Average Monthly Annuity[2] |
|---|---|---|---|---|
| 2010 | 72 | 61.4 | 25.49 | 4,946 |
| 2011 | 146 | 62.7 | 27.35 | 5,285 |
| 2012 | 60 | 61.7 | 21.48 | 4,264 |
| 2013 | 75 | 60.7 | 21.07 | 3,836 |
| 2014 | 80 | 61.7 | 23.28 | 4,661 |
| 2015 | 101 | 61.4 | 24.11 | 5,139 |
| 2016 | 87 | 62.6 | 22.88 | 4,889 |
| 2017 | 98 | 59.6 | 24.32 | 5,333 |
| 2018 | 99 | 60.5 | 24.06 | 5,087 |
| 2019 | 95 | 60.9 | 24.70 | 6,129 |

[1]Data from Actuary
[2]Data calculated by Fund staff

The above schedule provides summary information about the changes in the number, age, service and monthly pension benefit of the Fund's retirees from year to year.

## SCHEDULE OF AVERAGE BENEFIT PAYMENTS AT RETIREMENT[1]

| | Years of Credited Service | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30+ | Total |
| **Period 1/1/10 to 12/31/10** | | | | | | | | |
| Average Pension | - | $789 | $1,703 | $2,995 | $3,704 | $5,650 | $7,822 | $4,946 |
| Average Final Average Salary | - | $5,124 | $5,671 | $6,793 | $6,718 | $7,941 | $9,883 | $7,780 |
| Number of Retired Members | - | 2 | 11 | 7 | 16 | 12 | 24 | 72 |
| **Period 1/1/11 to 12/31/11** | | | | | | | | |
| Average Pension | $618 | $1,124 | $2,612 | $3,490 | $4,524 | $5,406 | $6,945 | $5,285 |
| Average Final Average Salary | $6,879 | $5,475 | $7,786 | $7,288 | $7,394 | $7,367 | $8,774 | $7,898 |
| Number of Retired Members | 2 | 3 | 10 | 14 | 32 | 28 | 57 | 146 |
| **Period 1/1/12 to 12/31/12** | | | | | | | | |
| Average Pension | $632 | $1,040 | $2,090 | $3,238 | $5,511 | $5,984 | $5,531 | $4,264 |
| Average Final Average Salary | $7,169 | $6,670 | $7,403 | $7,671 | $9,437 | $8,466 | $7,017 | $8,006 |
| Number of Retired Members | 4 | 4 | 6 | 10 | 14 | 12 | 10 | 60 |
| **Period 1/1/13 to 12/31/13** | | | | | | | | |
| Average Pension | $273 | $2,077 | $2,210 | $2,863 | $3,586 | $6,208 | $5,255 | $3,836 |
| Average Final Average Salary | $6,130 | $9,343 | $7,585 | $7,024 | $6,782 | $8,698 | $6,677 | $7,513 |
| Number of Retired Members | 3 | 3 | 13 | 12 | 19 | 19 | 6 | 75 |
| **Period 1/1/14 to 12/31/14** | | | | | | | | |
| Average Pension | $500 | $868 | $1,784 | $3,018 | $4,560 | $6,287 | $6,493 | $4,661 |
| Average Final Average Salary | $8,176 | $5,588 | $6,145 | $7,522 | $7,882 | $8,332 | $8,262 | $7,788 |
| Number of Retired Members | 2 | 2 | 9 | 11 | 19 | 29 | 8 | 80 |
| **Period 1/1/15 to 12/31/15** | | | | | | | | |
| Average Pension | $406 | $1,090 | $2,339 | $2,949 | $4,806 | $6,321 | $7,541 | $5,139 |
| Average Final Average Salary | $7,361 | $6,460 | $8,489 | $7,986 | $8,184 | $8,738 | $9,664 | $8,560 |
| Number of Retired Members | 2 | 4 | 10 | 14 | 11 | 46 | 14 | 101 |
| **Period 1/1/16 to 12/31/16** | | | | | | | | |
| Average Pension | - | $1,542 | $1,841 | $2,800 | $5,034 | $6,524 | $7,112 | $4,889 |
| Average Final Average Salary | - | $7,889 | $7,263 | $7,308 | $8,800 | $9,030 | $9,316 | $8,499 |
| Number of Retired Members | - | 8 | 8 | 13 | 15 | 33 | 10 | 87 |
| **Period 1/1/17 to 12/31/17** | | | | | | | | |
| Average Pension | $150 | $1,623 | $1,925 | $2,930 | $3,967 | $7,014 | $7,694 | $5,333 |
| Average Final Average Salary | $6,249 | $8,142 | $7,544 | $7,487 | $7,563 | $9,671 | $9,952 | $8,739 |
| Number of Retired Members | 2 | 1 | 8 | 13 | 19 | 46 | 9 | 98 |
| **Period 1/1/18 to 12/31/18** | | | | | | | | |
| Average Pension | $0 | $1,336 | $1,951 | $3,145 | $4,422 | $6,635 | $6,831 | $5,087 |
| Average Final Average Salary | $0 | $7,215 | $7,696 | $8,347 | $8,750 | $9,130 | $8,911 | $8,636 |
| Number of Retired Members | - | 4 | 16 | 9 | 14 | 29 | 27 | 99 |
| **Period 1/1/19 to 12/31/19** | | | | | | | | |
| Average Pension | $452 | $1,069 | $1,643 | $3,166 | $5,678 | $7,310 | $8,240 | $6,129 |
| Average Final Average Salary | $7,927 | $6,577 | $6,572 | $8,723 | $10,956 | $10,256 | $10,447 | $9,772 |
| Number of Retired Members | 3 | 2 | 7 | 13 | 11 | 22 | 36 | 94 |

[1]Average Monthly Benefit amount is rounded to the nearest dollar and does not include Survivor Annuities.

## ADDITIONS BY SOURCE AND DEDUCTIONS BY TYPE
**Last Ten Years**
**(in Thousands of Dollars)**

### ADDITIONS BY SOURCE

| Year Ending December 31 | Employee Contributions | Employer Contributions | as a % of Covered Payroll | Investment Income [1] | Total Additions |
|---|---|---|---|---|---|
| 2010 | $15,872 | $29,918 | 17.1 | $142,915 | $188,705 |
| 2011 | 15,032 | 37,379 | 22.8 | (1,376) | 51,035 |
| 2012 | 14,714 | 65,098 | 39.7 | 116,325 | 196,137 |
| 2013 | 16,891 | 92,944 | 54.9 | 226,102 | 335,937 |
| 2014 | 18,975 | 73,906 | 41.9 | 81,605 | 174,486 |
| 2015 | 21,385 | 71,041 | 40.0 | (1,399) | 91,027 |
| 2016 | 20,831 | 80,260 | 43.9 | 113,693 | 214,784 |
| 2017 | 20,840 | 89,858 | 48.7 | 194,825 | 305,523 |
| 2018 | 21,046 | 87,167 | 47.3 | (102,993) | 5,220 |
| 2019 | 21,182 | 87,446 | 47.4 | 225,162 | 333,790 |

### DEDUCTIONS BY TYPE

| Year Ending December 31 | Benefits | Refunds | Administrative Expenses | Total Deductions | Change in Net Position |
|---|---|---|---|---|---|
| 2010 | $108,219 | $1,380 | 1,277.0 | $110,876 | $77,829 |
| 2011 | 118,102 | 2,711 | 1,399 | 122,212 | (71,177) |
| 2012 | 122,714 | 1,195 | 1,297 | 125,206 | 70,931 |
| 2013 | 127,206 | 1,129 | 1,391 | 129,726 | 206,211 |
| 2014 | 132,913 | 984 | 1,407 | 135,304 | 39,182 |
| 2015 | 139,161 | 1,348 | 1,660 | 142,169 | (51,142) |
| 2016 | 145,325 | 2,011 | 1,503 | 148,839 | 65,945 |
| 2017 | 152,153 | 2,560 | 1,614 | 156,327 | 149,196 |
| 2018 | 159,561 | 1,762 | 1,685 | 163,008 | (157,788) |
| 2019 | 167,481 | 1,828 | 1,642 | 170,951 | 162,839 |

[1] Investment Income is net of investment expenses, and includes miscellaneous income and securities lending income.

The schedules above provide historical detail about additions and deductions, and perspective about the Fund’s progress in accumulating assets to pay benefits when due.

**Last Ten Years**
**(in Thousands of Dollars)**
**EMPLOYEE CONTRIBUTIONS**

| Year | Regular Contributions[1] | Optional Plan Contributions[2] | Prior Service Payments[3] | Commissioners' Alternative Plan[4] | Total |
|---|---|---|---|---|---|
| 2010 | $15,581 | $0 | $276 | $15 | $15,872 |
| 2011 | 14,733 | - | 286 | 13 | 15,032 |
| 2012 | 14,377 | - | 326 | 11 | 14,714 |
| 2013 | 16,422 | - | 454 | 15 | 16,891 |
| 2014 | 18,575 | - | 385 | 15 | 18,975 |
| 2015 | 21,315 | - | 54 | 16 | 21,385 |
| 2016 | 20,768 | - | 13 | 50 | 20,831 |
| 2017 | 20,824 | - | 1 | 15 | 20,840 |
| 2018 | 20,949 | - | 70 | 14 | 21,033 |
| 2019 | 21,139 | - | 24 | 19 | 21,182 |

**EMPLOYER CONTRIBUTIONS**

| Year | Regular Contributions[5] | Special Contributions | Total |
|---|---|---|---|
| 2010 | $29,918 | - | $29,918 |
| 2011 | 37,379 | - | 37,379 |
| 2012 | 35,098 | $30,000 | 65,098 |
| 2013 | 62,944 | 30,000 | 92,944 |
| 2014 | 61,906 | 12,000 | 73,906 |
| 2015 | 71,041 | - | 71,041 |
| 2016 | 80,260 | - | 80,260 |
| 2017 | 89,858 | - | 89,858 |
| 2018 | 87,167 | - | 87,167 |
| 2019 | 87,446 | - | 87,446 |

[1] Includes employee contributions towards employee and surviving spouse annuities, and cost of living increases.
[2] Optional Plan Contributions were towards an enhanced benefit plan that expired in 2007.
[3] Prior Service Payments include leave of absence, refund repayment and military service.
[4] Contributions by elected Commissioners to an enhanced benefit plan.
[5] Tax levy based on two years prior employee contributions per Statutes.

The schedules above provide historical financial information and detail about the types of contributions received by the Fund.

**BENEFIT EXPENSES BY TYPE (in Thousands of Dollars)**

| Year | Employee Annuities | Spouse Annuities | Child Annuities [1] | Ordinary Disabilities | Duty Disabilities | Total Benefits |
|---|---|---|---|---|---|---|
| 2010 | $90,447 | $16,613 | $104 | $813 | $242 | $108,219 |
| 2011 | 99,601 | 17,523 | 112 | 650 | 216 | 118,102 |
| 2012 | 103,043 | 18,675 | 114 | 678 | 204 | 122,714 |
| 2013 | 106,624 | 19,432 | 114 | 822 | 214 | 127,206 |
| 2014 | 111,352 | 20,444 | 157 | 821 | 140 | 132,914 |
| 2015 | 116,885 | 21,279 | 116 | 722 | 159 | 139,161 |
| 2016 | 121,730 | 22,920 | 153 | 412 | 110 | 145,325 |
| 2017 | 127,099 | 24,203 | 142 | 632 | 77 | 152,153 |
| 2018 | 133,184 | 25,264 | 143 | 856 | 114 | 159,561 |
| 2019 | 139,788 | 26,741 | 137 | 747 | 67 | 167,481 |

**PERCENT OF TOTAL BENEFITS**

| Year | Employee Annuities | Spouse Annuities | Child Annuities | Ordinary Disabilities | Duty Disabilities |
|---|---|---|---|---|---|
| 2010 | 83.58 % | 15.35 % | 0.10 % | 0.75 % | 0.22 % |
| 2011 | 84.33 | 14.84 | 0.09 | 0.55 | 0.18 |
| 2012 | 83.97 | 15.22 | 0.09 | 0.55 | 0.17 |
| 2013 | 83.82 | 15.28 | 0.09 | 0.65 | 0.17 |
| 2014 | 83.78 | 15.38 | 0.12 | 0.62 | 0.11 |
| 2015 | 83.99 | 15.29 | 0.08 | 0.52 | 0.11 |
| 2016 | 83.76 | 15.77 | 0.11 | 0.28 | 0.08 |
| 2017 | 83.53 | 15.91 | 0.09 | 0.42 | 0.05 |
| 2018 | 83.47 | 15.83 | 0.09 | 0.54 | 0.07 |
| 2019 | 83.46 | 15.97 | 0.08 | 0.45 | 0.04 |

**PERCENT CHANGE FROM YEAR TO YEAR**

| Year | Employee Annuities | Spouse Annuities | Child Annuities | Ordinary Disabilities | Duty Disabilities | Total Benefits |
|---|---|---|---|---|---|---|
| 2010 | 4.46 % | 5.88 % | -13.33 % | 9.13 % | -9.70 % | 4.66 % |
| 2011 | 10.12 | 5.48 | 7.69 | -20.05 | -10.74 | 9.13 |
| 2012 | 3.46 | 6.57 | 1.79 | 4.31 | -5.56 | 3.91 |
| 2013 | 3.48 | 4.05 | 0.00 | 21.24 | 4.90 | 3.66 |
| 2014 | 4.43 | 5.21 | 37.72 | -0.12 | -34.58 | 4.49 |
| 2015 | 4.97 | 4.08 | -26.11 | -12.06 | 13.57 | 4.70 |
| 2016 | 4.15 | 7.71 | 31.90 | -42.94 | -30.82 | 4.43 |
| 2017 | 4.41 | 5.60 | -7.19 | 53.40 | -30.00 | 4.70 |
| 2018 | 4.79 | 4.38 | 0.70 | 35.44 | 48.05 | 4.87 |
| 2019 | 4.96 | 5.85 | -4.20 | -12.73 | -41.23 | 4.96 |

[1] Child Annuities include children age 18-23 who are enrolled as a full-time students.

The schedules above provide historical information about the types of benefits, the relative dollar amounts, as well as the total and relative growth or decline in the amount of benefits paid by the Fund.

**REFUNDS BY TYPE (in Thousands of Dollars)**

| Year Ending December 31 | Inherited Rollovers | Refund Commissioners Alternative | Refunds Regular Contribution | Refunds to Estate | Refund No Surviving Spouse | Refund Excess Optional Contributions | Total |
|---|---|---|---|---|---|---|---|
| 2015 | - | $6 | $281 | $163 | $759 | $140 | $1,349 |
| 2016 | $127 | - | 430 | 718 | 678 | 59 | 2,011 |
| 2017 | 439 | - | 512 | 320 | 1,208 | 81 | 2,560 |
| 2018 | - | - | 564 | 38 | 1,063 | 98 | 1,762 |
| 2019 | 413 | 13 | 207 | 306 | 744 | 146 | 1,828 |

The schedule above provides historical financial information and detail about the types of refunds paid to members by the Fund.

Note: Schedule above was created in 2019 and will contain 10 years of data in 2024.

THIS PAGE INTENTIONALLY LEFT

BLANK

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION[1]**
**Last 10 Years**

| **Additions:** | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|
| Employer contributions | $ 87,446,476 | $ 87,167,339 | $ 89,858,224 | $ 80,259,713 | $ 71,041,361 |
| Employee contributions | 21,182,425 | 21,032,601 | 20,839,829 | 20,830,779 | 21,385,212 |
| Total contributions | 108,628,901 | 108,199,940 | 110,698,053 | 101,090,492 | 92,426,573 |
| Investment income | | | | | |
| Net appreciation (depreciation) in fair value of investments | 204,118,604 | (122,365,473) | 177,341,970 | 92,762,607 | (20,894,824) |
| Interest on fixed income investmen | 7,587,473 | 8,269,739 | 7,679,730 | 11,347,002 | 10,369,440 |
| Interest on short-term investments | 78,543 | 48,251 | 20,697 | 23,036 | 2,589 |
| Dividend income | 18,275,337 | 15,758,513 | 14,054,030 | 13,633,175 | 14,072,578 |
| Total investment income (loss) | 230,059,957 | (98,288,970) | 199,096,427 | 117,765,820 | 3,549,783 |
| Less investment expenses | (5,155,389) | (5,024,180) | (4,620,753) | (4,613,683) | (5,542,836) |
| Investment income (loss) net of expenses | 224,904,568 | (103,313,150) | 194,475,674 | 113,152,137 | (1,993,053) |
| Security lending activities | | | | | |
| Securities lending income | 431,648 | 555,840 | 448,326 | 265,142 | 98,280 |
| Broker rebates | (104,883) | (164,155) | (13,332) | 294,951 | 645,265 |
| Bank fees | (72,453) | (84,597) | (89,209) | (126,358) | (178,331) |
| Net income from securities lending | 254,312 | 307,088 | 345,785 | 433,735 | 565,214 |
| Other | 3,058 | 15,415 | 3,100 | 107,175 | 28,817 |
| Total additions | 333,790,839 | 5,209,293 | 305,522,612 | 214,783,539 | 91,027,551 |
| **Deductions:** | | | | | |
| Annuities and benefits | | | | | |
| Employee annuitants | 139,787,569 | 133,184,182 | 127,098,834 | 121,729,901 | 116,884,577 |
| Surviving spouse annuitants | 26,741,289 | 25,264,246 | 24,203,400 | 22,919,525 | 21,279,363 |
| Child annuitants | 137,000 | 143,000 | 142,000 | 153,500 | 116,000 |
| Ordinary disability benefits | 747,456 | 856,301 | 631,401 | 412,706 | 721,720 |
| Duty disability benefits | 67,422 | 113,318 | 77,279 | 109,753 | 159,251 |
| Total annuities and benefits | 167,480,736 | 159,561,047 | 152,152,914 | 145,325,385 | 139,160,911 |
| Refunds of employee contributions | 1,827,884 | 1,762,475 | 2,560,129 | 2,010,630 | 1,348,845 |
| Administrative expenses | 1,642,209 | 1,685,479 | 1,613,976 | 1,502,639 | 1,659,917 |
| Total deductions | 170,950,829 | 163,009,001 | 156,327,019 | 148,838,654 | 142,169,673 |
| **Net increase (decrease)** | **162,840,010** | **(157,799,708)** | **149,195,593** | **65,944,885** | **(51,142,122)** |
| Net position held in trust for pension benefits | | | | | |
| Beginning of year | 1,343,994,268 | 1,501,793,976 | 1,352,598,383 | 1,286,653,498 | 1,337,795,620 |
| End of year | $ 1,506,834,278 | $ 1,343,994,268 | $ 1,501,793,976 | $ 1,352,598,383 | $ 1,286,653,498 |

[1] Prior to 2012 the financial statement that showed additions and deductions was entitled "Statement of Changes in Plan Net Assets".

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION (Continued)**
**Last 10 Years**

| **Additions:** | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|
| Employer contributions | $ 73,906,168 | $ 92,944,381 | $ 65,097,835 | $ 37,379,137 | $ 29,917,793 |
| Employee contributions | 18,974,954 | 16,890,798 | 14,714,496 | 15,031,961 | 15,872,560 |
| Total contributions | 92,881,122 | 109,835,179 | 79,812,331 | 52,411,098 | 45,790,353 |
| Investment income | | | | | |
| Net appreciation (depreciation) in fair value of investments | 63,589,719 | 211,132,376 | 103,332,085 | (9,430,774) | 136,082,191 |
| Interest on fixed income investments | 8,933,924 | 7,044,688 | 3,064,231 | - | - |
| Interest on short-term investments | 2,008 | 2,295 | 10,218 | 7,754 | 24,608 |
| Dividend income | 14,539,290 | 12,836,171 | 13,885,983 | 12,102,449 | 10,162,335 |
| Total investment income (loss) | 87,064,941 | 231,015,530 | 120,292,517 | 2,679,429 | 146,269,134 |
| Less investment expenses | (5,899,566) | (5,465,211) | (4,755,254) | (4,389,141) | (3,607,447) |
| Investment income (loss) net of expenses | 81,165,375 | 225,550,319 | 115,537,263 | (1,709,712) | 142,661,687 |
| Security lending activities | | | | | |
| Securities lending income | 64,302 | 89,443 | 131,240 | 93,329 | 90,389 |
| Broker rebates | 505,896 | 630,124 | 851,467 | 275,018 | 181,683 |
| Bank fees | (135,007) | (174,283) | (233,885) | (77,124) | (53,512) |
| Net income from securities lending | 435,191 | 545,284 | 748,822 | 291,223 | 218,560 |
| Other | 4,460 | 6,833 | 40,046 | 42,126 | 34,214 |
| Total additions | 174,486,148 | 335,937,615 | 196,138,462 | 51,034,735 | 188,704,814 |
| **Deductions:** | | | | | |
| Annuities and benefits | | | | | |
| Employee annuitants | 111,351,904 | 106,623,945 | 103,043,445 | 99,600,881 | 90,446,956 |
| Surviving spouse annuitants | 20,443,693 | 19,431,705 | 18,674,499 | 17,523,246 | 16,613,378 |
| Child annuitants | 157,500 | 114,000 | 114,000 | 112,012 | 103,505 |
| Ordinary disability benefits | 820,626 | 821,914 | 677,523 | 650,220 | 813,505 |
| Duty disability benefits | 139,779 | 214,417 | 204,441 | 216,010 | 241,842 |
| Total annuities and benefits | 132,913,502 | 127,205,981 | 122,713,908 | 118,102,369 | 108,219,186 |
| Refunds of employee contributions | 984,346 | 1,128,922 | 1,195,737 | 2,711,115 | 1,380,310 |
| Administrative expenses | 1,406,507 | 1,391,487 | 1,296,826 | 1,398,695 | 1,276,511 |
| Total deductions | 135,304,355 | 129,726,390 | 125,206,471 | 122,212,179 | 110,876,007 |
| **Net increase (decrease)** | **39,181,793** | **206,211,225** | **70,931,991** | **(71,177,444)** | **77,828,807** |
| Net position held in trust for pension benefits | | | | | |
| Beginning of year | 1,298,613,827 | 1,092,402,602 | 1,021,470,611 | 1,092,648,055 | 1,014,819,248 |
| End of year | $ 1,337,795,620 | $ 1,298,613,827 | $ 1,092,402,602 | $ 1,021,470,611 | $ 1,092,648,055 |

THIS PAGE INTENTIONALLY LEFT BLANK

# LEGISLATIVE CHANGES SECTION

# Legislative Changes

**1979 Session**

PA 81-0634 Disability benefits payable for alcoholism if the employee participates in a rehabilitation program.

PA 81-0679 Reciprocal Act: changes proportionate pension credits under the "alternate" formula.

PA 81-1187 Under IRS Code Section 414(h), employer may pick up the employee contributions for all compensation earned after December 31, 1980, by a reduction in the cash salary or an offset to a future salary increase or by a combination of both.

**1980 Session**

PA 81-1536 Reversed all changes made by PA 81-1187 and put the pickup section as a new paragraph. They are treated as employee contributions for all purposes, including refunds; and determination of the tax levy.

**1981 Spring Session**

PA 82-0690 Effective January 1, 1982, signed November 12, 1981.

Post-retirement increases from 2% to 3% for new retirements only.

Maximum spouse benefit from $500 to $600.

Disability benefits payable to age 70 in some cases.

Increase in employee pensions of $25 per month.

Increase in spouse pension of $25 per month or up to $250.

Children's annuities to $100 and $140.

Reduction in spouse age discount.

Increase in tax multiple to 2.34 in 1984 and after.

PA 82-0308 Authorizes investments in conventional mortgage pass-through securities.

PA 82-0256 Financial statement required by Department of Insurance within 6 months and actuarial statement within 9 months; $100 per day penalty if late.

**1982 Spring Session**

PA 82-0960 Expanded fiduciary standards, prohibited transactions, civil action may be brought by Attorney General or by a participant.

PA 82-0768 Clarifies compulsory retirement age to 70 rather than 67.

**1983 Spring Session**

PA 83-0827 Effective January 1, 1984, signed September 24, 1983.

2% benefit accrual formula.

Maximum spouse benefit from $600 to $800.

No reduction for spouse age difference.

Eliminates 30 day wait for refund.

Interest rate on refund repayments from 6% to 8%.

Eliminates second doctor's report for duty disability under certain conditions.

PA 83-0861 Minimum reporting and actuarial information for 1984.

PA 83-0869 10% prudent person investment category.

PA 83-0970 Delegation of investment authority restrictions.

**1984 Session** No legislative changes

## 1985 Spring Session

PA 84-0733 Signed September 21, 1985.

Early Retirement Contribution (ERC) Plan: Elimination of age discount factor with one-time employee and employer contribution for those who retire after July 1, 1985 and before June 30, 1995.

Post-retirement annuity increases to begin upon the first anniversary of retirement for those who retire on or after July 1, 1985.

$800 maximum on surviving spouse benefit removed.

Remarriage will terminate spouse annuity only for remarriage before July 1, 1985.

Optional term annuity if life annuity less than $200.

## 1986 Spring Session

PA 84-1472 Changes the requirement from 10 years to 5 years for allowance after withdrawal while disabled.

Optional Plan of 3% contributions for 1% additional benefit per year of service. Provisions for payment of past service with interest. Provisions expire July 1, 1992. Such plan if elected by a member, would require a 3% of salary contribution (with interest for past service) and would produce an additional 1% per year of service benefit and would increase the employee annuity, post-retirement increase and spouse annuity. Additional optional benefits may not be established for more than 10 years of service. Membership in this plan is optional and as such, it is possible to delay election to just prior to retirement. The effective date of this optional plan is July 31, 1987 the date upon which approval was received from the Internal Revenue Service.

## 1987 Spring Session

PA 85-0964 Eligibility for retirement at age 50 instead of age 55.

No discount for age less than 60 with 30 or more years of service.

Accrual rate of 2.15% per year of service instead of 2%.

80% maximum benefit for future retirees instead of 75%.

Annuity based on 2 year final average salary instead of 4 year final average salary.

Ad hoc increases for present retiree, widow(er)'s and children.

Increase in employee contribution to 9%.

Decrease in the multiple to 2.19.

An alternative benefit for District Commissioners effective upon IRS approval (which was approved June 22, 1988).

**1988 Session** No legislative changes.

**1989 Session**

PA 86-0273 Signed August 24, 1989.

Average salary 104 consecutive weeks instead of 24 months.

Accrual rate of 2.2% of average salary for each of the first 20 years of service and 2.4% for each year of service in excess of 20.

Increase for surviving spouse of 3% of the amount of annuity on the date of employee's retirement or death in service.

Alternative annuity for commissioners age 60 with 6 years of service.

Widow(er)'s allowance of 60% plus 1% for each year of service of employee's annuity at the date of employee's death.

Ad hoc increases for widow(er)'s.

**1990 Session**

PA 86-0957 Amends Chapter 120, Paragraph 671 of the Revenue Act to provide for a separate listing on the tax bill of the dollar amount of tax due from the person assessed which is allocable to a tax levied under the Illinois Pension Code, or any other tax levied by a municipality or township for public pension or retirement purposes. Effective January 1, 1990.

PA 86-1488 Clarifies the date of 3% increase for surviving spouse.

Allows any City officer to transfer his MWRD service to the Municipal Fund.

**1991 Session**

PA 87-0794 Article 13 rewritten to preserve existing benefits, signed November 20, 1991.

Average salary 52 consecutive pay periods instead of 104 consecutive weeks.

Retirement annuity with 5 years' service and age 60 instead of 10 years.

Early Retirement Contribution (ERC) Plan extended to June 30, 1997.

Age discount .5% for each full month employee is less than age 60 or each full month employee's service is less than 30 years, whichever is less.

Optional Plan extended to July 1, 1997.

Surviving spouse of employee who withdraws from service not eligible for annuity unless employee had 10 years of service.

Dissolution of marriage after retirement shall not divest spouse of an annuity if they had been married 10 years on the date of retirement.

For employee with Reciprocal service who retires on or after July 1, 1985 and dies after January 1, 1991 with 15 years in MWRD and service prior to September 5, 1975 spouse annuity shall be calculated as a percentage of total annuity minus amount payable by other fund as of date of death.

Surviving spouse annuity shall be discounted .25% for each full month the spouse is younger than the employee, with maximum 60%. The discount shall be reduced 10% for each full year the marriage was in effect as of the date of withdrawal or death in service.

Child annuity $250 with one parent alive or $350 when neither is alive.

**1992 Session**

PA 87-1265 Beginning January 1, 1993, all employee annuity increases are 3% compounded.

Beginning January 1, 1993, all non-term employee annuitants retiring at age 60 or older with at least 10 years of service get a $500 minimum annuity.

Beginning January 1, 1993, all non-term, non-Reciprocal, non-Disability (Annuity) employees who qualify for an annuity will get a $250 minimum annuity.

Employee may now purchase up to 15 years of optional service (previously 10 years).

Beginning January 1, 1993 all surviving spouse annuities are increased annually by 3% compounded if the employee had at least 10 years of service.

Starting January 1, 1993 all surviving spouse annuitants of non-term employee annuitants who retired at age 60 or older with at least 10 years of MWRD service get a $500 minimum annuity.

Starting January 1, 1993 all surviving spouses of non-term, non-Reciprocal, non-Disability (Annuity) employee annuitants get a $250 minimum annuity.

Alternative annuity for commissioners at age 55 (previously 60).

"No spouse" refunds include 3% interest (previously without interest).

Signed January 25, 1993.

**1993 Session** No legislative changes

**1994 Session** No legislative changes

**1995 Session** No legislative changes

**1996 Session** No legislative changes

**1997 Session**

PA 90-0012 Approved June 13, 1997.

Allows equity investments to be up to 50% of total investments.

Excludes future Civil Service Board members from participation in the retirement fund.

Raises eligibility for retirement for new entrants from age 50 to 55.

Extends the Early Retirement Contribution (ERC) Plan to December 31, 2002 for employees with at least 10 years of MWRD service and raises the age of eligibility for new employees to age 55.

Extends the Optional Plan to December 31, 2002 for employees in service on or before June 30, 1997, limits annual contributions, and allows contributions within 30 days of withdrawal. Any employees entering service after June 30, 1997, are not eligible to participate in this Plan.

Clarifies that a disability annuity is not payable if the employee is able to work.

For all employees hired after June 13, 1997, the early retirement discount requires at least 10 years of District service to be eligible to make the early retirement contribution even if they have 30 years total, including reciprocal service.

Bases calculation of contribution to eliminate the early retirement discount on the highest salary used in the benefit calculation and clarifies that the contribution will be based on a portion of years.

## 1997 Session, continued

PA 90-0012, continued

Clarifies that 3% annual compounded cost of living increases apply to employees and spouses whose annuities began under predecessor provisions of the statutes and provides annual cost of living increases to a small group of employees who retired before July, 1985 with at least 10 years of service who previously did not receive these increases.

Requires that new employees have at least 3 years of service before a surviving spouse benefit is payable, if employee dies in service or 10 years of service if employee withdraws before age 55; minimum service is required for a non-duty related death (no minimum service is required for a duty related death).

Subjects the minimum surviving spouse annuities to the discount for age differential and requires the marriage to have been in continuous effect for 10 years to eliminate the discount for the age differential.

Provides a child's annuity to children of former employees with at least 10 years of service and to children of retired annuitants. Increases the minimum service requirement of new employees from 2 to 3 years before a child's annuity would be payable.

Clarifies that the determination of the amount of a child's annuity is dependent on the life status of the child's parent and not the employee's surviving spouse.

Removes the age limitation for eligibility for duty and ordinary disability benefits and provides that disability for new employees will not be paid for the first 3 days of the disability payment period unless the disability continues for at least 11 more days.

Eliminates benefits for children of employees receiving duty disability benefit.

Allows payment of disability for up to 5 years if disability occurs at age 60 or later.

Clarifies that calculation of the benefit under the alternative annuity plan be based on the final average salary as a commissioner instead of salary at the time of termination of service.

Requires that new employees return to work for at least one year before becoming eligible to make contributions for a period of leave of absence.

Clarifies that a year of service credit for purposes other than an annuity is to be based on 26 pay periods in 12 consecutive months.

**1998 Session** No legislative changes

**1999 Session** No legislative changes

## 2000 Session

PA 91-0887 Signed July 6, 2000

Allows the Fund's Trustees to approve use of the actuarial table recommended by the actuarial consultant for purpose of calculating a reversionary annuity.

In cases where a Workers' Compensation claim is in dispute, clarifies that duty disability benefits are paid only for the period of disability determined by the Illinois Industrial Commission or acknowledged by the employer.

Ordinary and duty disability benefits are terminated if the employee does not provide the Fund with access to medical and/or employment records, or refuses to follow medical advice and treatment to enable the employee to return to work.

No interest is used when calculating retroactive duty disability benefits.

Allows lump-sum payments for optional credit on past service by commissioners electing the Alternative provision.

Refund repayments are calculated using a compound interest rate equal to 8% or the actuarial investment return assumption used in the most recent Annual Actuarial Statement, whichever is greater.

## 2001 Session

PA 92-0053 Signed July 12, 2001

Provides automatic annual increases of retirement annuities to commence on the first day of the month in which the first anniversary of the date of retirement occurs.

Provides a minimum retirement annuity equal to $500 per month for an employee with at least 10 years of District service, plus $25 per month for each year of service in excess of 10 years, to a maximum of $750 per month.

Provides a minimum surviving spouse annuity equal to the greater of:

a) $500 per month for the surviving spouse of an employee with at least 10 years of District service, plus $25 per month for each year of service in excess of 10 years, to a maximum of $750 per month; or
b) 50% of retirement annuity to of the deceased spouse at the time of death.

Provides an increase in a child's annuity to $500 per month for 1 child and $350 per month for each additional child if one parent is living. If neither parent is living, provides an increase in a child's annuity to $1,000 per month for one child and $500 for each additional child. In either case, the maximum benefit is $2,500 per month for all children of the employee, to be divided equally among the children.

Allows equity investments to be up 65% of total investments.

## 2002 Session

PA 92-0599 Signed June 28, 2002

Provides for early retirement without discount for any employee who retires on or after January 1, 2003 but on or before December 31, 2007 if the employee is at least age 50 but less than age 60 and has at least 10 years of service credit exclusive of any reciprocal service and the sum of his years of creditable service and his age equals at least 80.

Provides for a revised Optional plan of additional benefits and contributions for the period from January 1, 2003 to December 31, 2007. The rate of contributions is 4% of pensionable earnings. The additional benefit is 1% per year of Optional contributions. Participation is limited to employees with at least 10 years of creditable service with this Fund. The maximum additional benefit that may be accumulated under this plan,

## 2002 Session, continued

PA 92-0599, continued

including any additional benefit accumulated under a prior optional benefit plan, is 12%. Participation requires an irrevocable written election. Payment for service prior to the irrevocable election is limited to the same calendar year. The cost of payment to establish Optional credit before the election is 4% of the salary for the applicable period of service, plus interest from the date of service to the date of payment at the higher of 8% per year or the actuarial investment return assumption. The tax levy for Optional contributions is equal to the amount of Optional contributions.

## 2003 Session

PA 93-0334 Signed July 24, 2003

Provides for active employees having at least ten years of MWRD service credit and meeting other requirements to purchase up to 2 years of active military credit toward their retirement annuity. The employees' contributions are to be calculated based upon the starting salary and are to include the employer's normal cost at the time of payment, plus regular interest of 3% per year compounded annually.

## 2004 Session

No legislative changes

## 2005 Session

PA 94-0621 Signed August 18, 2005

For all new entrants, requires that disability annuitants have a minimum of five years of service exclusive of disability service to qualify for a benefit.

Provides for the minimum annuity as detailed in HB 478 for all employee and surviving annuitants regardless of whether an age discount applied to the employee's annuity calculation.

Clarifies surviving spouse annuity eligibility for the spouse of an employee who withdraws from service prior to the attainment of the minimum retirement age yet who has enough service to qualify for a future annuity. Changes make reference to a minimum retirement age, which varies dependent on start date, rather than a fixed age. Changes also provide for surviving spouse annuity eligibility for the spouse of a withdrawn employee who was eligible for an annuity at age 62 but died prior to annuity application.

Provides for calculation method for the surviving spouse annuity of a vested employee who separated from service before minimum retirement age and had not yet begun to receive an annuity.

Grants child annuities to children of deceased employees and former annuitants if the child is over age 18 but under age 23 and is a full time student.

Eliminates the three-day wait (for employees hired after June 13, 1997) for duty disability benefits that did not continue 11 additional days.

Provides ordinary disability benefits for employees hired after June 13, 1997 beginning the 31st day after the last day work provided all sick leave is exhausted.

Allows commissioner alternative contributions to be made pre-tax, pending IRS approval.

Provides an annuity for the surviving spouse of a commissioner who elects the commissioner's alternative plan from a fixed 66 2/3% of the commissioner's annuity at death to the greater of 66 2/3% or 60% plus 1% per year of service up to a maximum of 85% of the annuity earned by the commissioner on the date of death. The number

**2005 Session, continued**

PA 94-0621, continued

of years used to calculate the commissioner's annuity would also be used to calculate the annuity for the surviving spouse.

Changes refund eligibility to allow for a refund of contributions for a separated employee who was hired on or after June 13, 1997 who is between ages 50 and 55 with over 20 years of service.

Clarifies that interest paid on a refund to estate should be calculated through the date of withdrawal.

Allows for refunds to be repaid within 90 days of withdrawal.

Empowers the Board to assess and collect interest on amounts due the Fund using the current actuarial interest rate assumption.

**2006 Session** No legislative changes

**2007 Session** Signed August 17, 2007

PA 95-0279 Modifies child annuity eligibility requirements for adopted children. Removes the stipulation that proceedings to adopt the child must have begun at least one year prior to death.

PA 95-0521 Signed August 28, 2007

Requires the retirement system or pension fund to divest its assets with an Illinois finance entity if the entity does not annually certify that it complies with the requirements of the High Risk Home Loan Act.

PA 95-0586 Signed August 31, 2007

Effective January 1, 2008, the annuity effective date for employee and spouse annuities is the first of the month following retirement. Employee and spouse annuities are payable for the full month if the annuitant was alive on the first day of the month.

The $10.00 per child monthly duty disability benefit was placed back into legislation for employees who were in service before June 13, 1997. This provision was inadvertently eliminated from the language at the time of the 1991 re-draft of 40 ILCS 5/13.

The contribution definition was revised to clarify that the 7 ½ % contribution for the employee's and child's annuity consisted of a 7% contribution for the retirement annuity and ½ % for the annual retiree cost of living increase.

The method of calculation of refunds after death was amended to clarify that the ½% allocated for the retiree cost of living was not included in a refund payable upon death. Further, to whom payment of a refund after death should be distributed was clarified. Payment is first made to a spouse, then to beneficiary as designated by the employee, and if there is no beneficiary form, then to the late employee's children in equal parts. If there is no spouse, then payment is made to the designated beneficiary.

If there is no spouse or designated beneficiary, then payment is made to any children of the deceased employee. If there is no spouse, designated beneficiary, or child then distribution is made to the heirs in accordance with the laws of descent and distribution in the State of Illinois.

**2007 Session, continued**
PA 95-0586, continued

The Retirement Fund Board of Trustees was granted authority to invest the Fund's reserves according to the Prudent-Person Rule. This rule requires a fiduciary (trustee) to discharge his/her duties with the care, prudence and diligence under the prevailing circumstances that a prudent person acting in a like capacity and familiar with such matters would use in a similar situation.

**2008 Session**

PA 95-0891 Signed August 22, 2008.

Amends the MWRDGC statutes, 70 ILCS 2605/5.9, to allow the MWRDGC to transfer interest income to the Retirement Fund.

PA 95-0923 Signed August 26, 2008.

Adds two additional Trustees to the Retirement Fund Board, one appointed retiree and one elected active employee. The appointed retiree is recommended by the Board of Commissioners and approved by the Board Trustees of the Fund. Each of the three appointed trustees now serves a term of three years and each of the four elected active employees will now serve a term of four years. The term of one appointed and one elected trustee expires each year.

**2009 Session**

PA 96-0006 Signed April 3, 2009.

Expands the Illinois Governmental Ethics Act (5 ILCS 420/4A-101) to require that pension board members annually file a statement of economic interest.

Expands the definition of "fiduciary" (40 ILCS 5/1-101.2) to include any person who, with respect to a pension fund or retirement system, "renders advice on the selection of fiduciaries for a fee or other compensation, direct or indirect, with respect to any moneys or other property of the pension fund or retirement system, or has any authority or responsibility to do so." It also provides an expanded definition of "consultant" (40 ILCS 5/1-101.5)

Sets out specific goals, targets, and reporting requirements for the utilization of emerging investment managers by pension funds. Provides a definition of "emerging manager" as "a qualified investment advisor that manages an investment portfolio of at least $10 million but less than $10 billion and is a 'minority owned business,' 'female owned business,' or 'business owned by a person with a disability' as those terms are defined in the Business Enterprise for Minorities, Females, and Persons with Disabilities Act."

Imposes conflict-of-interest prohibitions that involve an investment transaction with an investment adviser when the pension board member, employee, consultant, or their spouse: (1) has a direct interest in the income gains, or profits of the investment advisor; or (2) has a relationship with that investment adviser that would result in a pecuniary benefit to the board member, employee, or consultant (40 ILCS 5/1-110)

Makes several changes regarding the use of investment advisers and investment services (40 ILCS 5/1-113.14).

Requires that every retirement system and pension fund governed by the Illinois Pension Code is subject to the Illinois Open Meetings Act (40 ILCS 5/1-113.16). All retirement systems and pension funds, must maintain an official website, updated at least quarterly with information concerning the investment of funds.

## 2009 Session, continued

PA 96-0006, continued

Requires all board members to attend at least 8 hours of training per year on the topics of ethics, fiduciary duty and investments. Each pension board must annually certify that its members received the required training. The certification must be sent to the Division of Insurance of the Department of Financial and Professional Regulation (40 ILCS 5/1-113.18).

Expands the gift ban provisions to all of the pension systems (40 ILCS 5/1-125) and enumerates the number of allowable exemptions.

PA 96-0251 Signed August 11, 2009.

Technical clarification regarding the effective date of a reversionary annuity. The benefit would begin on the first of the month following the death of the annuitant and would be payable for the full month if the reversionary annuitant was alive on the day of the month.

Increased child annuity benefits to an unmarried child under the age of 18 years (under the age of 23 years in the case of a full-time student) to $500 per month for each child, up to a maximum of $5,000 for all children of the employee if one parent is alive. The child's annuity shall be $1,000 for each child, up to a maximum of $5,000 if neither parent is alive. The effective date of the child's annuity benefit shall be the first of the month following the death of the employee or annuitant. The benefit would be payable for the full month if the annuitant was less than age 18 (or 23 if a full-time student) on the first of the month.

## 2010 Session

PA 96-0889 Signed April 14, 2010.

The provisions apply to a person who first becomes an employee and a participant of any retirement system in Illinois, other than a retirement system established under Article 2,3,4,5,6,or 18 of the Illinois Compiled Statutes, on or after January 1, 2011.

The major changes from the existing benefit structure are as follows:

- Normal retirement age to receive full benefits is increased to 67.
- The age to receive a reduced (early retirement) benefit is increased to 62.
- The reduction for early retirement is one-half of one percent for each month a member's age is under 67.
- Increases in the number of months used to calculate the final average salary to the highest 96 months over the last 120 months of service.
- Caps the final rate of earnings at $106,800 in 2011, which will increase annually by three percent or one-half of the increase of the Consumer Price Index.
- Changes the surviving spouse pension to sixty-six and two-thirds percent of the pension of the deceased member.
- Limits the annual pension increase for retirees to three percent or one-half of the increase in the Consumer Price Index, whichever is lower based on the original amount of the pension.
- Modifies the date the retiree cost of living increase would be paid to the first of the month following the attainment of age 67 or the first anniversary of the commencement of the annuity, whichever is later.

## 2010 Session, continued

PA 96-1490 Signed December 30, 2010.

This bill made technical changes to the two-tier system implemented by Public Act 96-0889.

## 2011 Session

PA 96-1513 Signed February 1, 2011

Effective June 1, 2011, two persons of either the same or opposite gender may enter into a legal relationship referred to as a civil union. Parties to the civil union have the same obligations, responsibilities, protections and benefits afforded by Illinois law to a married couple.

PA 97-0504 Signed August 23, 2011

Effective January 1, 2012, elected or appointed members of a public body subject to the Open Meetings Act must complete the electronic training on the Illinois Attorney General website once during their term of election or appointment as follows:

- Any person who is an elected or appointed member of a public body on January 1, 2012, must complete the electronic training between January 1, 2012 and January 1, 2013.
- Any person who becomes an elected or appointment member of a public body after January 1, 2012, must complete the electronic training no later than the 90th day after taking the oath of office or if not required to take the oath of office, after otherwise assuming responsibilities as a member of the public body.

Elected or appointed members need not complete the electronic training on an annual basis thereafter unless they are also designated to receive training on compliance with the Open Meetings Act.

PA 97-0609 Signed August 26, 2011

The provisions apply to a person who first becomes an employee and a participant of any retirement system in Illinois on or after January 1, 2012, and is receiving a retirement annuity and accepts on a contractual basis a position to provide services to a governmental agency from which he or she retired, then that person's annuity shall be suspended during the during the contractual service.

PA 97-0318 Signed August 12, 2011

The provisions of the Open Meetings Act are hereby expanded to allow closed meetings between internal or external auditors and governmental audit committees, finance committees and their equivalents when the discussion involves internal control weakness, identification of potential fraud risk areas, known or suspected frauds and fraud interviews conducted in accordance with generally accepted auditing standards.

## 2012 Session

PA 97-0651 Signed January 5, 2012

Expands the duties of fiduciaries to include the responsibility to report a reasonable suspicion of a false statement or other fraud to the Board of Trustees or the State's Attorney of the jurisdiction where the fraudulent activity occurred.

## 2012 Session, continued

PA 97-0894 Signed August 3, 2012

Effective with the 2013 fiscal year, increases the maximum tax levy from 2.19 multiplied by the employee contributions two years prior to the lesser of 4.19 multiplied by the employee contributions two years prior or the actuarially determined contribution requirement. Increases employee retirement contributions for Tier 1 employees by 1% per year for three years, starting with the first pay period paid in 2013. Resulting contribution rates for Tier 1 members are 10% in 2013, 11% in 2014, and 12% in 2015. The Tier 1 employee contribution rate will revert to 9% the first pay period paid on or after the date when the funded ratio of the Fund is determined to have reached the 90% funding goal.

## 2013 Session

PA 98-0433 Signed August 16, 2013

Creates an exception to the current RFP requirements for investment services. The competitive bid process will not be required for contracts for follow-on funds with the same fund sponsor through closed-end funds.

PA 98-0597 Signed November 20, 2013

Effective June 1, 2014, makes changes permitting same-sex marriage in the State of Illinois. Provides for reciprocity, recognizing same-sex marriages solemnized in other states and countries in which same-sex marriage is legal. Allows for voluntary conversion of civil unions to marriages.

## 2014 Session

PA 98-1022 Signed August 22, 2014

Effective February 1, 2015, the Boards of the Illinois retirement systems shall establish goals for utilization of investment managers that meet the definition of minority owned business, female owned business, and disabled person owned business. The systems will set a goal for each category.

Furthermore, beginning January 1, 2015, no contract for investment or consulting services or commitment to a private market fund shall be awarded by a retirement system unless such entity first discloses the following:

1) The number and percentage of its senior staff who are minority, female, or disabled.
2) The number of contracts for services that the applying entity has with a minority owned business, female owned business, or business owned by a person with a disability.
3) The number of contracts for services that the applying entity has with businesses other than a minority owned business, female owned business, business owned by a person with a disability, if more than 50% of the services under that contract are performed by a minority person, a female, or a person with a disability.

## 2014 Session, continued

PA 98-1022, continued

Provides that a retirement system must consider such information (within the bounds of financial and fiduciary prudence) before awarding a contract for investment services, consulting services, or commitment to a private market firm. The Act also provides that if an investment firm meeting the system's criteria responds to an RFP for investment services and meets the definition of a minority owned business, then that firm shall be allowed to present to the Board before a final decision is made for that RFP.

**2015 Session**

PA 99-0008 Signed July 9, 2015

Effective July 1, 2015, provides that if the employer fails to transmit required contributions to the pension fund, the fund may certify to the State Comptroller the amount due, and the Comptroller must, beginning in 2016, deduct and remit to the fund the certified amounts from payments of State funds to the employer.

PA 99-0462 Signed August 25, 2015

Effective January 1, 2016, adds an aspirational goal for Illinois pension funds to use emerging investment managers for not less than 20% of the total funds under management. It shall also be the goal that not less than 20% of investment managers be minorities, females, and persons with disabilities. It establishes a goal to use businesses owned by minorities, females, and persons with disabilities for not less than 20% of contracts awarded for information technology services, accounting services, insurance brokers, architectural and engineering services and legal services.

**2016 Session**

PA 99-0683 Signed July 29, 2016

Requires Illinois pension funds, except downstate police and fire funds, to develop and implement a process to identify deceased annuitants. The process must be implemented no later than June 30, 2017. The process requires the fund to check for any deceased annuitants at least once per month. Accepted methods to identify deceased annuitants include, but are not limited to, the use of a third party entity that specializes in the identification of deceased persons, the use of data provided by the Social Security Administration, or the use of data provided by the Department of Public Health's Office of Vital Records. Amends the Vital Records Act to require the Department of Public Health to provide death match services to Illinois pension funds at no cost.

**2017 Session**

PA 100-0244 Signed August 22, 2017

Provides an opportunity for annuitants in same-sex marriages or unions recognized in Illinois a) between June 1, 2011 and June 30, 2016 under the Illinois Religious Freedom Protection and Civil Union Act of 2011, or b) between February 26, 2014 and June 30, 2016 under the Illinois Marriage and Dissolution of Marriage Act of 2014, who retired prior to June 1, 2011 and received a refund of surviving spouse contributions, to repay the no-spouse refund with interest and establish eligibility for a surviving spouse annuity.

**2017 Session, continued**

PA 100-0244, continued

The annuitant must make an irrevocable election between January 22, 2018 and January 21, 2019. Repayment of the no-spouse refund includes interest at the actuarially assumed rate of return, compounded from the date of the refund to the date of payment. Payment may be made in full or in installments. All payments must be made in full within 24 months of the election.

PA 100-0334 Signed August 25, 2017

Expands the felony forfeiture language to include the forfeiture of surviving spouse benefits that would have been payable to the surviving spouse of a person entering service on or after August 25, 2017 who was convicted of any felony relating to and arising out of service as an employee.

PA 100-0542 Signed November 8, 2017

No later than January 1, 2018, and each January thereafter, requires a consultant to annually disclose to the board of the retirement system, board of the pension fund, or the investment board that retains the consultant certain information concerning searches for investment services from minority owned businesses, female owned businesses, and businesses owned by persons with a disability. Requires a consultant to disclose any compensation or economic opportunity received in the last 24 months from investment advisors retained by the board of a retirement system, board of a pension fund, or investment board. Requires consideration of these disclosures before awarding a contract for consulting services.

**2018 Session**

PA 100-0902 Signed August 17, 2018

Amends Article 1 to state that each retirement system, pension fund, or investment board shall make its best efforts to ensure that the racial and ethnic makeup of its senior administrative staff represents the racial and ethnic makeup of its membership.

**2019 Session**

PA 101-0339 Signed August 9, 2019

Amends Section 5/13-208. Provides that "average final salary" means the highest average monthly (instead of annual) salary as calculated by accumulating the salary for the highest 520 consecutive paid days of service (instead of 52 consecutive pay periods) within the last 10 years of service immediately preceding the date of retirement and dividing by 24 (instead of 2). Provides that if the employee is paid for any portion of a workday, the fraction of the day worked and the salary for that fraction of the day shall be counted in accordance with the Fund's administrative rules.

PA 101-0473 Signed August 23, 2019

Amends Section 5/1-113.6 and creates 5/1-113.17. The Illinois Sustainable Investing Act. Provides that any public agency or governmental unit shall develop, publish, and implement sustainable investment policies applicable to the management of all public funds under its control. Provides that the sustainable investment policy may be incorporated in existing investment policies developed, published, and implemented by a public agency or governmental unit. Provides that the sustainable investment policy shall include material, relevant, and decision-useful sustainability factors to be applied by the public agency or governmental unit in evaluating investment decisions. Provides that a public agency shall prudently integrate sustainability factors into its investment decision-making, investment analysis, portfolio construction, due diligence, and investment ownership in order to maximize anticipated financial returns, minimize projected risk, and more effectively execute its fiduciary duty. Specifies sustainability factors, and the ways in which such factors may be analyzed. Amends the Deposit of State Moneys Act, the Public Funds Investment Act, and the Illinois Pension Code to make changes concerning investment policy and the Illinois Sustainable Investing Act. Provides findings and purpose provisions.

PA 101-0546 Signed August 23, 2019

Creates 765 ILCS 1026/15-1505. Requires a retirement system, pension fund, or investment board under the Illinois Pension Code report to the Illinois Treasurers' Office annually property presumed abandoned. No retirement system, pension fund, or investment board under the Illinois Pension Code shall pay or deliver any annuity, pension, or benefit fund held in a fiduciary capacity to the Illinois Treasurers' Office.