

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
RETIREMENT AND PENSION SYSTEM**

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**Financial Statements**

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For the Years Ended December 31, 2022 and 2021

**Prepared by:** MLGW Retirement and Pension System Staff  
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**MEMPHIS LIGHT, GAS AND WATER DIVISION**  
**RETIREMENT AND PENSION SYSTEM**  
Memphis, Tennessee

For the Years Ended December 31, 2022 and 2021

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# Letter of Transmittal

## MEMPHIS LIGHT, GAS AND WATER DIVISION RETIREMENT AND PENSION SYSTEM

### To the MLGW Pension Board and Board of Commissioners:

We are pleased to submit the Annual Report of Memphis Light, Gas and Water Division (“MLGW” or “the Division”) Retirement and Pension System (the “Plan”) for the fiscal year ended December 31, 2022. This report has been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”).

Management is responsible for the preparation and fair presentation of the information. Notes have been included to assist the reader in understanding the financial statements.

The MLGW Plan’s 2022 financial statements have been audited by FORVIS, LLP, certified public accountants. The goal of the independent audit was to obtain reasonable assurance that the financial statements of the Plan for fiscal year December 31, 2022, were free from material misstatements. The independent audit involved performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements as well as evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management.

The independent auditor issued an unmodified opinion on the Plan’s financial statements for the fiscal year ended December 31, 2022. The independent auditor’s report is presented as the first component of the report.

GASB Statement No. 34, *Basic Financial Statements-and Management Discussion and Analysis-for State and Local Governments* (“GASB 34”) 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 Plan’s MD&A can be found immediately following the report of the independent auditor.

**Profile of the Plan** – The Memphis Light, Gas and Water Division, a division of the City of Memphis, under a resolution by the Board of Commissioners, established the Memphis Light, Gas and Water Division Retirement and Pension System (the “Plan”) to recognize and reward employee contributions to the operations of the Division. The MLGW Pension Plan, which was amended and restated effective January 1, 2015, is part of the Division’s overall plan to provide for the future security of its employees and their family members. The MLGW Pension Plan is a single employer defined benefit plan.

The MLGW Pension Plan is funded by contributions made by the employees and by the Division. Benefits under the MLGW Pension Plan normally are paid upon retirement (service, disability, or deferred), death (to survivors), or separation of service (to those who leave the Division prior to retirement). The MLGW Pension Plan is administered by the MLGW Pension Board under the direction of the Board of Commissioners.

The MLGW Pension Board establishes the policies of the MLGW Pension Plan. The Board is comprised of one member of the Board of Commissioners of the Division (who serves as Chairman of the Pension Board), the President of the Division (who serves as Vice-Chairman), the Sr. Vice President, CFO, CAO, and Secretary-Treasurer of the Division, two active Participants who have vested rights under the MLGW Pension Plan and who are elected by Participants, one retired Participant who is elected by retired Participants, and one citizen of Shelby County who is appointed by the Board of Commissioners of the Division. The members of the Pension Board serve without compensation.

The MLGW Pension Board shall fulfill the duties of the fiduciary responsible for MLGW Pension Plan administration and shall have overall control of the administration of the Plan, with all powers and discretion necessary to enable it to properly carry out its duties; provided the responsibility and authority to administer to the Plan on a day-to-day basis shall be delegated to the Pension Department.

**Funded Status** – As of January 1, 2023, the Plan was 90.29% funded. Total Pension Liability was \$1,719.0 million and the Plan Fiduciary Net Position was \$1,552.1 million, resulting in a Net Pension Liability of \$166.9 million. The covered payroll was \$180.2 million.

**Acknowledgements** – The annual report of the Memphis Light, Gas and Water Division Retirement and Pension System was assembled through the combined efforts of the MLGW Pension Department, various finance professionals within the Division, the Plan’s actuary, its custodian, and investment consultants. Their cooperation and assistance were essential and greatly appreciated. We would like to thank all personnel who contributed to the preparation of this report. Special thanks must also be given to FORVIS, LLP for their efficient and timely completion of this year’s audit.

Respectfully submitted,



**Doug McGowen**  
President & CEO



**Dana Jeanes**  
SVP, CFO & CAO (Secretary-Treasurer)

**MEMPHIS LIGHT, GAS AND WATER DIVISION  
RETIREMENT AND PENSION SYSTEM**  
Memphis, Tennessee

***Pension Board Members***



***Carl Person  
Chairman***



***Doug McGowen  
Vice Chairman***



***Dana Jeanes  
Secretary-Treasurer***



***Nicholas Newman  
Employee Member  
Term Expires: 12/31/2024***



***Nedra Bailey  
Employee Member  
Term Expired: 12/31/2022***



***Jerry R. Collins, Jr.  
Retired Member  
Term Expires: 12/31/2023***



***Pamela Z. Clary  
Citizen Member  
Term Expires: 6/30/2023***

*The Memphis Light, Gas and Water Pension Plan provides that the Pension Board shall fulfill duties of the fiduciary responsible for Plan administration and shall have overall control of the administration of the Plan, with all powers and discretion necessary to enable it to properly carry out its duties set forth in the Plan. The responsibility and authority to administer the Plan on a day-to-day basis is delegated to the Pension Department.*

## ***PROFESSIONAL CONSULTANTS***

The MLGW Pension Plan contracts with several independent consultants to provide services that are vital to the professional and successful operation of the Plan.

### ***INVESTMENT CONSULTANT***

#### **CBIZ Investment Advisory Services, LLC**

Robert Longfield, CFA  
Executive Vice President, Senior Consultant

Brian Jones  
Senior Vice President, Senior Consultant

### ***CUSTODIAN***

#### **Northern Trust Corporation**

Anabel Argüello  
Vice President | Sr. Relationship Manager

Kristi Kamykowski  
Vice President | Specialist  
Client Business Solutions Consulting

### ***DEATH AUDIT CONSULTANT***

#### **The Berwyn Group**

Karen Mason  
National Corporate Sales Account Manager

### ***CONSULTING ACTUARY***

#### **Segal Consulting**

Jeffrey S. Williams, FCA, ASA, EA, MAAA  
Vice President and Consulting Actuary

Bryan Clubb, ASA, MAAA, EA  
Consulting Actuary

### ***LEGAL CONSULTANT***

#### **Evans & Petree, PC**

Frank N. Stockdale Carney  
Shareholder

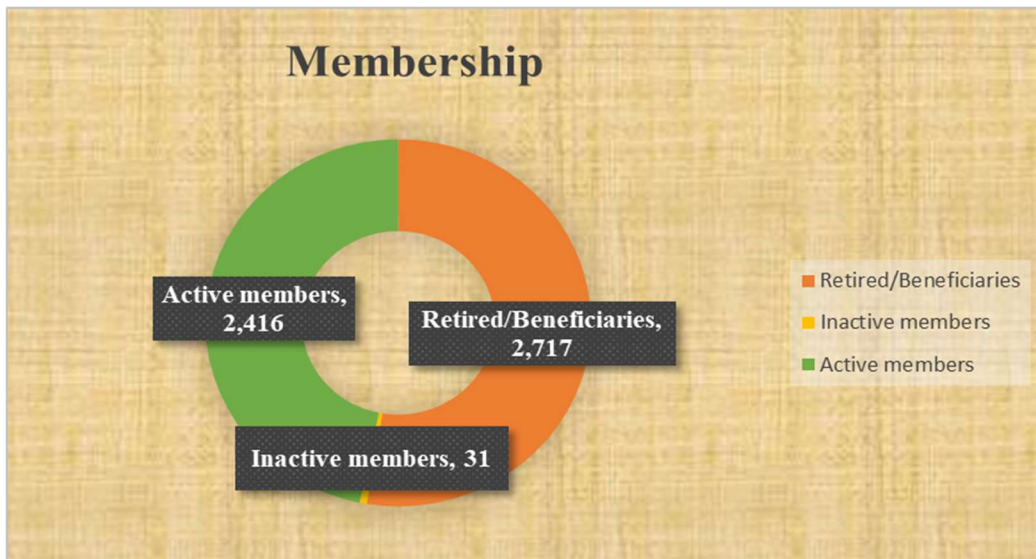
Elizabeth Friary  
Associate

## ***FISCAL YEAR UPDATES***

Joining the April 20, 2022, Pension Board meeting was the new committee chair of the Pension and OPEB Boards, Mr. Carl Person. He was welcomed as one of the two new Board of Commissioners during their April 8, 2022, meeting. As chairman, Mr. Person succeeded Mr. Steve Wishnia in that role.

A Pension Board election for one of the two Employee Member seats was announced by Ms. Kristina Vo, Pension Supervisor, during the October 26, 2022, Pension Board Meeting. The soon-to-be vacated position held by Ms. Nedra Bailey was set to expire on December 31, 2022. Employees declared their candidacy during the week of October 17, 2022, through October 21, 2022. Voting was scheduled for the week of November 14, 2022, through November 18, 2022. Ms. Vo further explained that the employee earning at least 50% of the vote would be declared the winner and serve a three-year term beginning January 1, 2023. Of the five candidates seeking the vacant seat, Mr. Rodney Cleek, who received 50.66% of the vote, was announced as the winner of the Employee Member election during the December 21, 2022, Pension Board meeting.

In October 2022, President and CEO, Mr. Jarl “J.T.” Young bid farewell to Memphis Light, Gas & Water and returned to his home state of Florida after accepting a position with Florida Power & Light. By December 2022, Mr. Doug McGowen, former City of Memphis Chief Operating Officer, began his tenure as President and CEO of Memphis Light, Gas & Water and thus became the Vice-Chairman of the Pension Board.



**FINANCIAL SECTION**  
Independent Auditor's Report  
FORVIS, LLP





## Independent Auditor's Report

Board of Commissioners and Management  
Memphis Light, Gas and Water Division  
Retirement and Pension System  
Memphis, Tennessee

### Report on the Audit of the Financial Statements

#### ***Opinion***

We have audited the financial statements of the Memphis Light, Gas and Water Division Retirement and Pension System (the "Plan"), a fiduciary fund of the City of Memphis, Tennessee, which comprise the statements of fiduciary net position as of December 31, 2022 and 2021, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of the Plan as of December 31, 2022 and 2021, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### ***Basis for Opinion***

We conducted our audits in accordance with auditing standards generally accepted in the United States of America ("GAAS") and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### ***Emphasis of Matter***

As discussed in Note 1, the accompanying financial statements are those of Memphis Light, Gas and Water Division Retirement and Pension System. The financial statements do not purport to present the financial position of the Light, Gas and Water Division of the City of Memphis or the City of Memphis as of December 31, 2022 and 2021, and the respective changes in their financial position or, where applicable, their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

## ***Responsibilities of Management for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

## ***Auditor's Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not absolute assurance, and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

## **Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, the Schedule of Changes in Retirement and Pension System's Net Pension Liability (Asset), the Schedule of Division's Contributions to the Retirement and Pension System, and Schedule of Investment Returns on pages 4 through 15 and 41 through 45 be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

## **Other Information**

Management is responsible for the other information included in the annual report. The other information comprises the introductory section but does not include the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audits of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

## **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated June 6, 2023, on our consideration of the Plan'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 solely 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 the effectiveness of the Plan's 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 Memphis Light, Gas and Water Division Retirement and Pension System's internal control over financial reporting and compliance.

**FORVIS, LLP**

**Memphis, Tennessee  
June 6, 2023**



**RETIREMENT AND PENSION SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
Years Ended December 31, 2022 and 2021**

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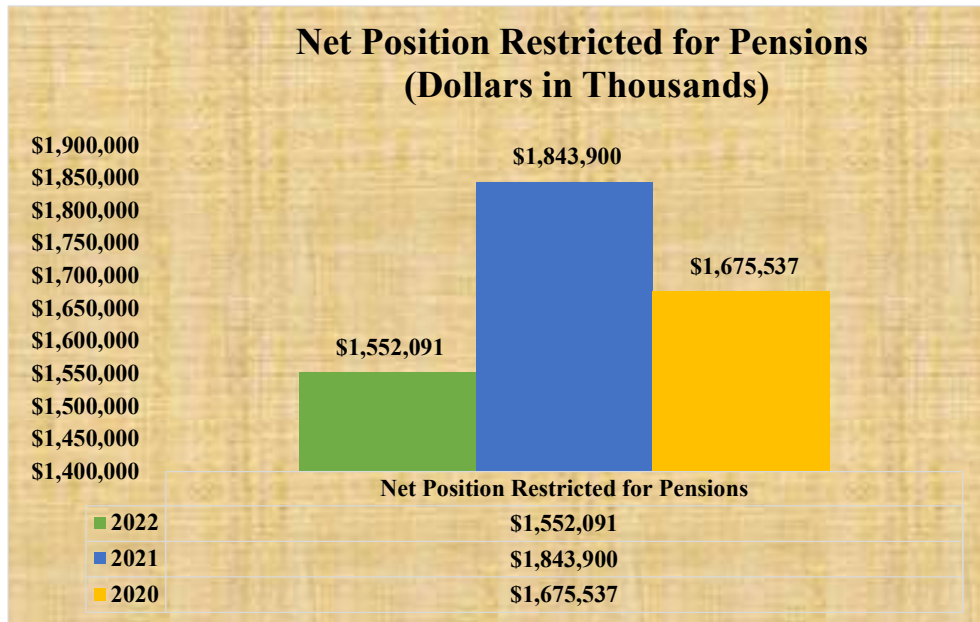
This discussion and analysis of the Memphis Light, Gas and Water Division (“MLGW”) Retirement and Pension System (the “Pension Plan”) financial performance provides a narrative overview and analysis of the MLGW Pension Plan’s financial activities and funding conditions for the fiscal years ended December 31, 2022, and December 31, 2021. Please read it in conjunction with the MLGW Pension Plan’s financial statements, notes, and required supplementary information, which follow this section. Information for fiscal years 2021 and 2020 is presented for comparative purposes.

### **FINANCIAL HIGHLIGHTS**

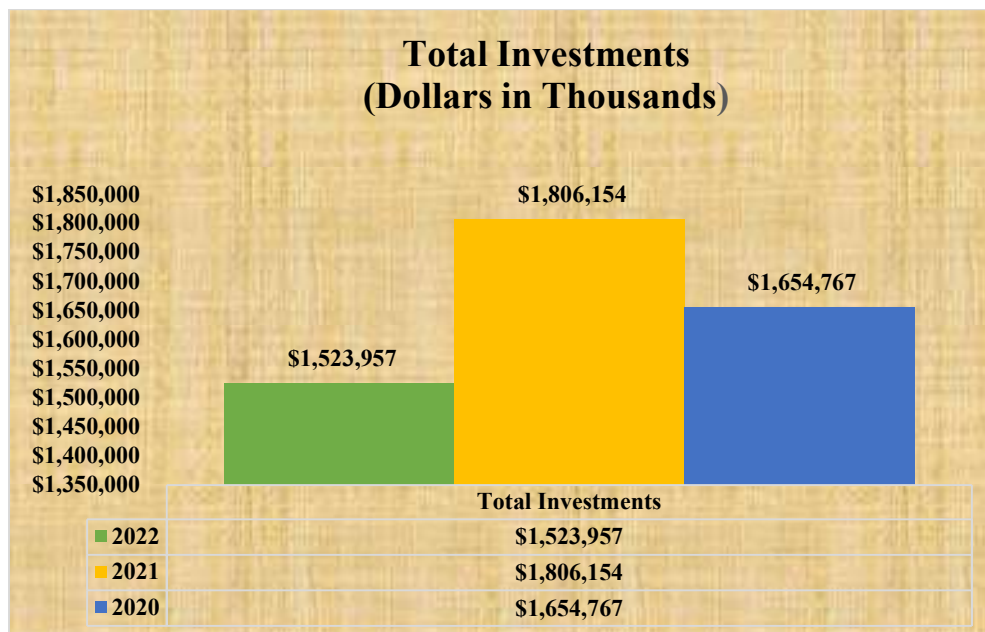
- Total fiduciary net position restricted for pensions (total assets less total liabilities) at December 31, 2022, was \$1,552.1 million, a decrease of \$291.8 million, or 15.8% compared to the total net position at December 31, 2021, of \$1,843.9 million. 2021 reflected an increase of \$168.4 million, or 10.1% from \$1,675.5 million total net position at December 31, 2020. *See Graph 1.*
- Cash and cash equivalents decreased \$13.4 million, or 36.8% to \$22.9 million at December 31, 2022, from \$36.3 million at December 31, 2021. 2021 reflected an increase of \$7.6 million or 26.3% from \$28.7 million reported in 2020.
- Investments were \$1,524.0 million at December 31, 2022, a decrease of \$282.2 million, or 15.6% from \$1,806.2 million at December 31, 2021. 2021 reflected an increase of \$151.4 million, or 9.2% from \$1,654.8 million at December 31, 2020. *See Graph 2.*
- Net investment loss, other than from securities lending, at December 31, 2022 was \$201.1 million representing a decline of \$453.5 million, or 179.7%. The loss was mainly attributable to the net depreciation in fair value of investments which reflected a decrease of \$455.8 million, or 193.0% from 2021. It was slightly offset by a \$2.8 million, or 29.7% increase in dividend and real estate income. For 2022, net depreciation in fair value of investments totaled \$219.6 million compared with net appreciation in fair value of investments of \$236.2 million for 2021. At December 31, 2021, net investment income, other than from securities lending, was \$252.4 million, an increase of \$60.2 million or 31.3% from \$192.2 million at December 31, 2020.. The net appreciation in fair value of investments for 2021 increased \$61.7 million, or 35.4% from \$174.5 million at December 31, 2020. *See graphs 3 (a) and (b)*
- Total pension benefit payments increased by \$3.6 million, or 3.1% at December 31, 2022, to \$118.7 million from \$115.1 million at December 31, 2021. 2021 reflected an increase of \$6.2 million, or 5.7% from \$108.8 million reported in 2020.

## Financial Highlights

**Graph 1**

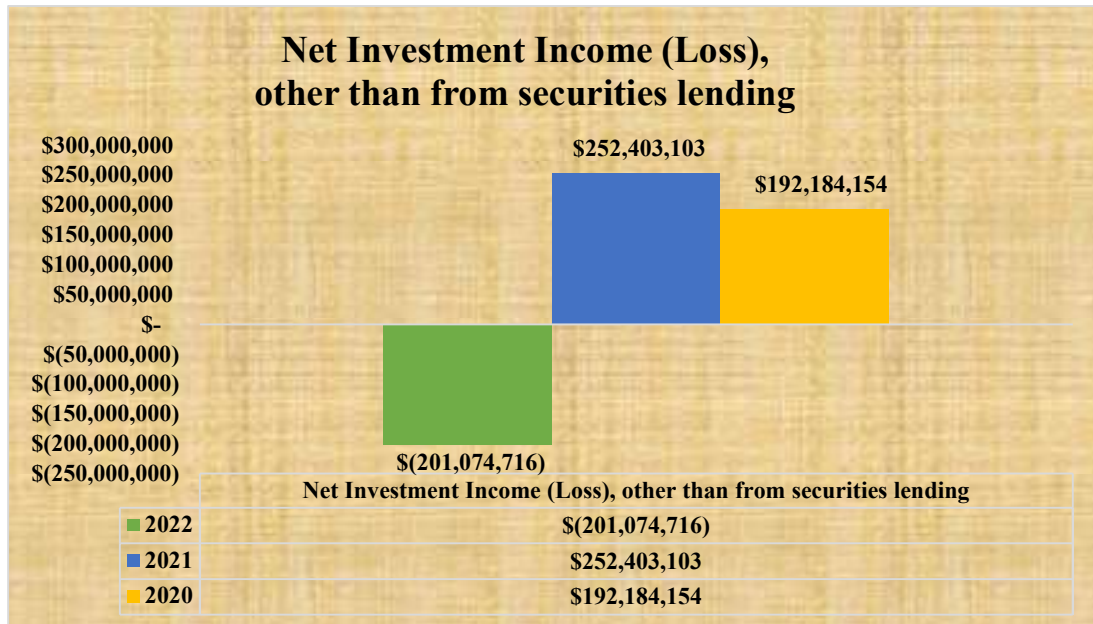


**Graph 2**

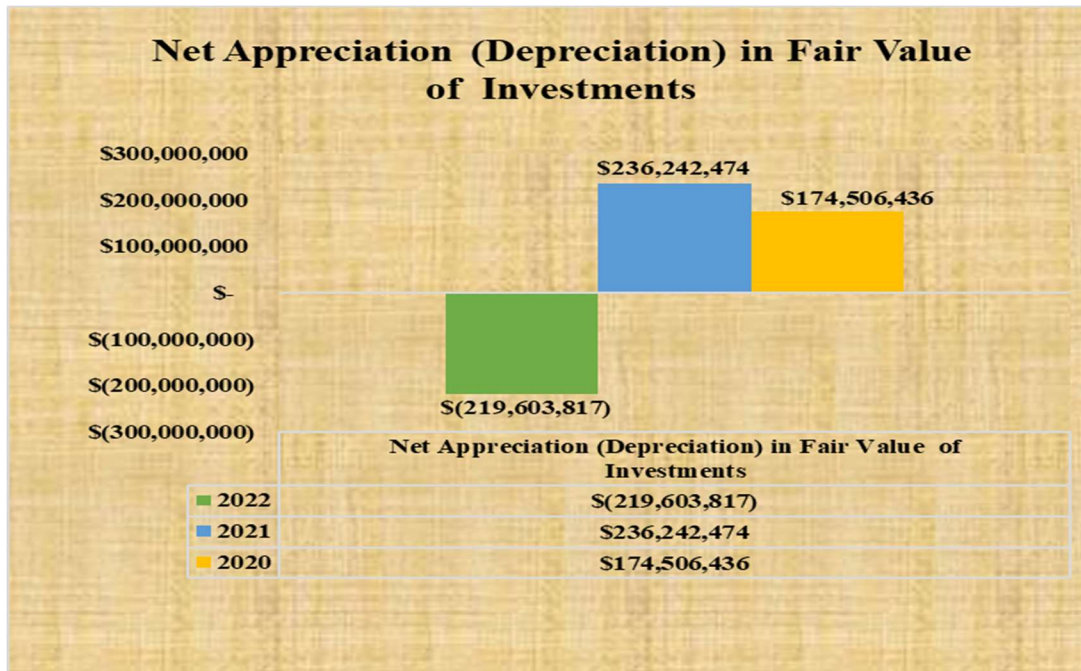


## Financial Highlights

Graph 3 (a)



Graph 3 (b)





## OVERVIEW OF THE FINANCIAL STATEMENTS

**This report contains the following information:**

1. **Basic Financial Statements** including:
  - a. Statements of Fiduciary Net Position
  - b. Statements of Changes in Fiduciary Net Position
  - c. Notes to the Financial Statements
  
2. **Required Supplementary Information** including:
  - a. Schedule of Changes in Retirement and Pension System's Net Pension Liability (Asset)
  - b. Schedule of Division's Contributions to the Retirement and Pension System
  - c. Schedule of Investment Returns

The basic financial statements are described as follows:

- The Statements of Fiduciary Net Position show the account balances at year-end and include the net position available for future benefit payments. The liabilities for future benefit payments are not included in the Statements; however, total pension liability is shown in the notes to the financial statements and the Schedule of Changes in Retirement and Pension System's Net Pension Liability (Asset) that is included in the Required Supplementary Information.
  
- The Statements of Changes in Fiduciary Net Position show the sources and use of funds during the year and illustrates the change in net position from the previous year.
  
- The Notes to the Financial Statements are an integral part of the financial statements and include additional detailed information and schedules to provide a better understanding of the financial statements.

The required supplementary information is based upon the MLGW Pension Plan's adoption of GASB Statement 67 and provides historical trends that help to reflect the ongoing plan perspective and the long-term nature of the defined benefit plan.

- The Schedule of Changes in Net Pension Liability (Asset) contains actuarial information about the status of the plan.
  
- The Schedule of Division's Contributions contains historical trend information regarding the value of the total annual contributions the employer must pay, and the actual contributions paid by the employer to meet this requirement. In addition, significant methods and assumptions used in calculating the actuarially determined contributions are included in the schedule.
  
- The Schedule of Investment Returns contains the annual money-weighted rate of return on the MLGW Pension Plan investments for the last ten years.



**RETIREMENT AND PENSION SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
Years Ended December 31, 2022 and 2021**

**ANALYSIS OF FIDUCIARY NET POSITION**

Condensed financial information comparing the Fiduciary Net Position for the past three fiscal years is presented below:

Table 1 Condensed Statements of Fiduciary Net Position December 31, 2022, 2021, and 2020 (Dollars in Thousands)					
	<u>2022</u>	<u>2021</u>	FY22 - FY21 Percentage <u>Change</u>	<u>2020</u>	FY21 - FY20 Percentage <u>Change</u>
<b>Assets</b>					
Cash and cash equivalents	\$ 22,933	\$ 36,297	-36.8%	\$ 28,735	26.3%
Receivables	7,638	15,873	-51.9%	26,709	-40.6%
Investments *	1,523,957	1,806,154	-15.6%	1,654,767	9.2%
Collateral held for securities on loan	35,968	74,913	-52.0%	48,872	53.3%
Total assets	<b>1,590,496</b>	1,933,237	-17.7%	1,759,083	9.9%
<b>Liabilities</b>					
Liability for securities purchased and accrued liabilities	2,437	14,424	-83.1%	34,674	-58.4%
Collateral subject to return to borrowers	35,968	74,913	-52.0%	48,872	53.3%
Total liabilities	<b>38,405</b>	89,337	-57.0%	83,546	6.9%
<b>Net position restricted for Pensions</b>	<b>\$ 1,552,091</b>	\$ 1,843,900	-15.8%	\$ 1,675,537	10.1%
* Investments include a private equity firm, GPB Holdings II, LP valued at \$30.9 million for 2022, and 2021, the fair market value as of December 31, 2021, the most recent available.					

**Assets**

*2022 Compared to 2021:*

At December 31, 2022, total assets were \$1,590.5 million, representing a decrease of \$342.7 million, or 17.7%, from 2021. The Plan experienced decreases in all its asset categories: cash and cash equivalents, total receivables, and total investments; however, the decline in total receivables and in the fair value of the Plan's total investments were the principal reasons for the decline in total assets.





**RETIREMENT AND PENSION SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
Years Ended December 31, 2022 and 2021**

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The MLGW Pension Plan's total receivables declined \$47.2 million largely due to a \$38.9 million decrease in collateral held in trust for securities on loan. Because there were significantly fewer securities available within the securities lending program compared to 2021, there was a corresponding reduction in the amount of collateral required. Additionally, receivables for securities sold reflected a sharp decline of \$8.2 million from 2021 due to a decrease in unsettled securities sales at December 31, 2022.

The Plan's investments are comprised of domestic and international equities, domestic and international fixed income, domestic and international special strategies, real estate, and short-term investments. For 2022, total investments were \$1,524.0 million, which reflected a decrease of \$282.2 million, or 15.6% from 2021. The decrease in total investments can be attributed to declining fair values in all the Plan's investments categories except for the Plan's special strategies and real estate funds. Within the equity funds, common stock domestic and common stock and mutual funds international contributed \$246.7 million to the decline in investments. The Plan's fixed income funds experienced declines during eight of the first ten months of the year. To address the declines within this asset category, the Plan made two decisions in late October: i) reduce the Plan's international exposure within the fixed income funds by withdrawing \$25.0 million from an emerging market debt fund and ii) withdrawing \$10.0 million from a global bond fund which had been negatively impacted by its currency exposure. The funds were used to invest in a fixed income exchange fund which would allow the Plan to obtain higher yields without the credit risk. The fixed income funds within the Plan ultimately experienced a net loss of \$61.5 million but did reflect gains of 3.8% and 0.5% in November and December, respectively. Finally, the Plan's short-term investments declined \$4.5 million. In contrast, the Plan added four new funds within the special strategies category which resulted in an additional \$39.3 million in fair value. Despite declines in the distressed debt international funds and life settlement domestic funds of \$29.8 million, the Plan's special strategies funds reflected a net gain of \$31.8 million over last year. Brookfield Infrastructure II-B, valued at \$18.0 million at December 31, 2022, was reclassified from private equity domestic to real estate in 2022 to be consistent with the Plan's investment policy. The Plan's real estate funds increased \$19.4 million or 7.1% compared to 2021.

*2021 Compared to 2020:*

At December 31, 2021, total assets were \$1,933.2 million, representing an addition of \$174.2 million, or 9.9%, from 2020. The Plan experienced increases in cash and cash equivalents, investments, and collateral held for securities on loan; however, the growth in fair value of the Plan's total investments was the primary reason for the increase in total assets.



**RETIREMENT AND PENSION SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
Years Ended December 31, 2022 and 2021**

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The MLGW Pension Plan's investments are comprised of domestic and international equities, domestic and international fixed income, domestic and international special strategies, real estate, and short-term investments. For 2021, total investments were \$1,806.2 million, which reflected an increase of \$151.4 million, or 9.2% from 2020. The increase in total investments can be attributed to strong performances in the Plan's equity funds, specifically, common stock domestic and common stock & mutual funds international. The Plan's private equity-international, life settlement, and real estate funds experienced significant increases in fair value. Domestic private equity funds were boosted by the addition of four new funds to the Plan's investment portfolio which resulted in an additional \$33.2 million in fair value. In addition, GPB Holdings II, LP reported a fair value of \$30.9 million as of December 31, 2021, an increase of \$10.9 million over the \$20.0 million reflected in 2020. That value represented the fair value as of June 30, 2019, which was the most recent available value as of December 31, 2020.

### ***Liabilities***

#### *2022 Compared to 2021:*

At December 31, 2022, total liabilities were \$38.4 million, a decrease of \$50.9 million, or 57.0% from \$89.3 million at 2021. The decline was primarily due to the decrease of \$38.9 million in collateral subject to return to borrowers, which was driven by a reduction in securities available to go out on loan. Additionally, liabilities for securities purchased declined by \$11.5 million due to a substantial reduction in pending trades compared to 2021.

#### *2021 Compared to 2020:*

At December 31, 2021, total liabilities were \$89.3 million, an increase of \$5.8 million, or 6.9% from \$83.5 million at 2020. This increase was primarily due to the substantial increase in collateral subject to return to borrowers, which was driven by an increase in the fair value of the securities on loan. The increase was partially offset by a decrease in liability for securities purchased.

### ***Net position***

#### *2022 Compared to 2021:*

At December 31, 2022, the MLGW Pension Plan's fiduciary net position (total assets less total liabilities) was \$1,552.1 million, a decrease of \$291.8 million, or 15.8 % from the net position at December 31, 2021. The reduction in the MLGW Pension Plan's fiduciary net position is primarily due to declining fair value of investments in the common stock domestic and common stock and mutual funds international, fixed income funds, distressed debt international funds, life settlement funds domestic, and short-term investments.



**RETIREMENT AND PENSION SYSTEM**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**Years Ended December 31, 2022 and 2021**

2021 Compared to 2020:

At December 31, 2021, the MLGW Pension Plan's fiduciary net position (total assets less total liabilities) was \$1,843.9 million, an increase of \$168.4 million, or 10.1 % from the net position at December 31, 2020. The increase in the MLGW Pension Plan's fiduciary net position is primarily due to the improved fair value of investments in the common stock domestic, common stock and mutual funds international, the domestic and international private equity funds, multi-asset, life settlement funds, and the real estate funds.

**ANALYSIS OF CHANGES IN FIDUCIARY NET POSITION**

Condensed financial information comparing the Changes in Fiduciary Net Position for the past three fiscal years is presented below:

Table 2 Condensed Statements of Changes in Fiduciary Net Position Years Ended December 31, 2022, 2021, and 2020 (Dollars in Thousands)					
	<u>2022</u>	<u>2021</u>	<u>FY22 - FY21 Percentage Change</u>	<u>2020</u>	<u>FY21 - FY20 Percentage Change</u>
<b>Additions</b>					
Contributions	\$ 35,598	\$ 38,415	-7.3%	\$ 38,332	0.2%
Net investment income (loss)	(201,075)	252,403	-179.7%	192,184	31.3%
Net securities lending income	187	194	-3.6%	254	-23.6%
Total additions (reductions)	<u>(165,290)</u>	291,012	-156.8%	230,770	26.1%
<b>Deductions</b>					
Benefits payments	118,655	115,059	3.1%	108,822	5.7%
Refunds	6,978	6,722	3.8%	3,004	123.8%
Administrative expense	886	868	2.1%	779	11.4%
Total deductions	<u>126,519</u>	122,649	3.2%	112,605	8.9%
<b>Increase (decrease) in net position</b>	<b>(291,809)</b>	168,363	-273.3%	118,165	42.5%
<b>Net position restricted for Pensions</b>					
Beginning of year	<u>1,843,900</u>	1,675,537	10.1%	1,557,372	7.6%
End of year	<u>\$ 1,552,091</u>	<u>\$ 1,843,900</u>	-15.8%	<u>\$ 1,675,537</u>	10.1%



### ***Change in Net Position***

#### *2022 Compared to 2021:*

The Plan reflected a decrease in net position at December 31, 2022, of \$291.8 million, down \$460.2 million, or 273.3% from an increase of \$168.4 million at December 31, 2021. Net investment loss was \$200.9 million, which reflected a reduction of \$453.5 million, or 179.5% from net investment income of \$252.6 million reported in 2021. The loss was primarily due to the net depreciation in fair value of investments within the Plan's equity and fixed income funds.

#### *2021 Compared to 2020:*

The change in net position at December 31, 2021, was \$168.4 million, an increase of \$50.2 million, or 42.5% from \$118.2 million at December 31, 2020. Total investment activities income increased by \$60.2 million, or 31.3% due to the appreciation of investments within the equity, special strategies, and real estate funds.

### ***Additions***

#### *2022 Compared to 2021:*

Total change in net position reflected a loss of \$165.3 million at December 31, 2022, down \$456.3 million or 156.8% from total additions of \$291.0 at December 31, 2021. This was primarily due to the Plan's net investment loss, other than from securities lending.

Net investment loss, other than from securities lending, was \$201.1 million, a reduction of \$453.5 million, or 179.7% from net investment income, other than from securities lending, of \$252.4 million in 2021. The component of the Plan's net investment loss, other than from securities lending, that had the greatest impact was net depreciation in fair value of investments which declined \$455.8 million, or 193.0%. It was slightly offset by a \$2.8 million increase in total dividend and real estate income.

#### *2021 Compared to 2020:*

Total additions to net position increased by \$60.2 million, or 26.1% to \$291.0 million at December 31, 2021, compared to \$230.8 million at December 31, 2020, primarily due to the increase in net investment income, other than from securities lending.

Net investment income, other than from securities lending was \$252.4 million, which reflected an increase of \$60.2 million, or 31.3% from \$192.2 million in 2020. The component of net investment income, other than from securities lending, that had the greatest impact was net appreciation in fair value of investments which rose \$61.7 million. It was slightly offset by a \$1.7 million decrease in dividend income.



## ***Deductions***

### *2022 Compared to 2021:*

Total deductions from net position in 2022 amounted to \$126.5 million, an increase of \$3.9 million, or 3.2%, up from \$122.6 million in 2021. The increase in deductions can primarily be attributed to the \$3.6 million, or 3.1% increase in total benefit payments. Due to the increase in inflation which began in 2021, there was a significant increase in the consumer price index for 2021 which serves as the basis for the cost of living increase. The consumer price index was 7.8 in 2021, compared to 1.4 in 2021. The difference resulted in approximately \$1.7 million more paid in 2022 for the cost of living increase than in 2021. The Plan also paid out \$.3 million, or 3.8% more in refunds to former employees and beneficiaries of deceased active and retired members than it did in 2021.

### *2021 Compared to 2020:*

Total deductions from net position in 2021 amounted to \$122.6 million, an increase of \$10.0 million or 8.9%, up from \$112.6 million in 2020. The increase in deductions in 2021 was two-fold: the Plan reflected an increase of \$5.6 million, or 6.2% in benefit payments to retired members and an increase of \$3.7 million, or 123.8% in refunds paid to terminated employees or beneficiaries. Benefit payments to retired participants in 2021 increased due, in part, to a 13.1% increase in the number of new retirees added to the MLGW Pension Plan. Additionally, the lump sum factor increased in 2021, which contributed to the \$4.0 million increase in lump sum payments issued at the time of retirement, despite the average retirement age and average lump sum percentage election remaining consistent with 2020.

In 2021, an additional twenty-four (24) refunds were issued totaling \$6.7 million compared to \$3.0 million in 2020. The refunds were a result of voluntary or involuntary terminations as well as deaths of active and retired employees who did not have a beneficiary eligible to receive a bimonthly survivor benefit. One-time payments to beneficiaries amounted to \$1.7 million in 2021 versus \$.3 million in 2020.

*See next page*



## **FUNDING STATUS**

Retirement benefits are financed by employer and participant contributions and income earned on the MLGW Pension Plan's investments. Over the long term, the investment portfolio returns have been a major component of additions to the MLGW Pension Plan's net position. In 2022, the bond market experienced its worst year on record due to multiple interest rate hikes initiated by the Federal Reserve to combat inflation which was a concern throughout most of the year. Meanwhile, the Standard and Poor's 500 Index was down 20% and experienced the third worst first half of the year since 1962. The Plan's investments reflected this economic decline during the first three quarters of the year but rebounded slightly in the fourth quarter as the Plan's equity funds experienced gains in October and November and the Plan's fixed income funds rebounded in November and December. The Plan's diversified portfolio helped mitigate the impact of the dramatic downturn in the bond and stock markets with consistent performances within the special strategies and real estate funds throughout the year. *See graph 4 (a) and 4 (b) on the next page*

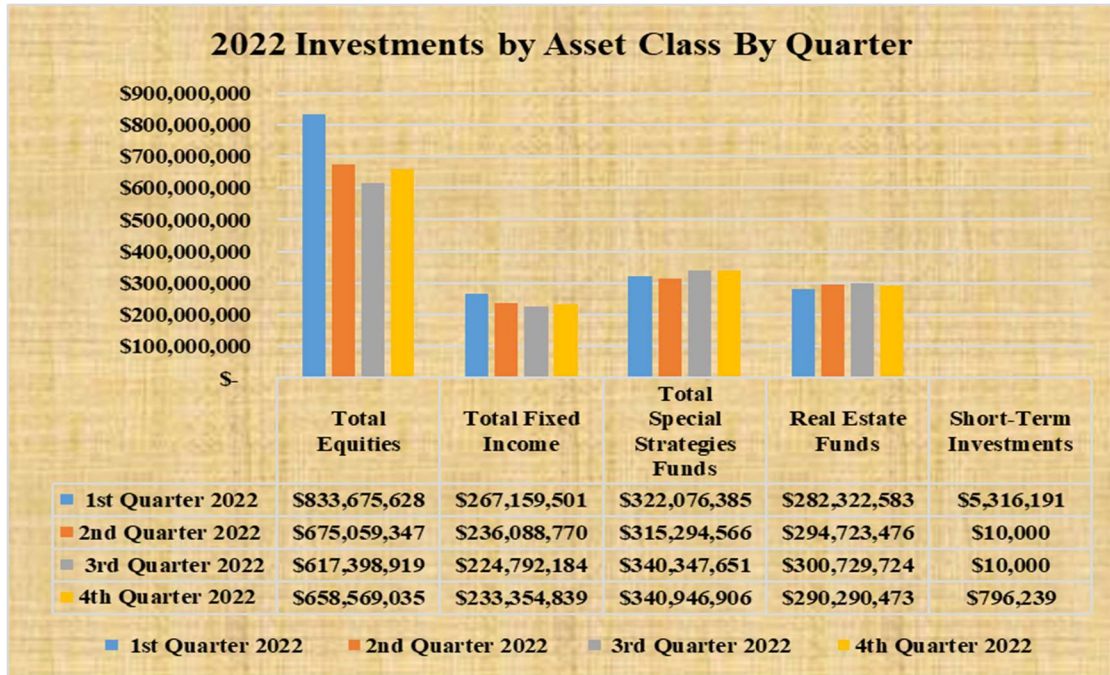
The funding policy adopted in 2015 and made effective on January 1, 2016, requires the Division to contribute 100% of the actuarially determined contribution. Employees are still required to contribute 8.0% of pensionable earnings to the MLGW Pension Plan. The Division's contribution is determined by an actuarial valuation study but shall be no less than 8.0% of pensionable earnings for all active participants. This, in addition to the contributions from plan participants, reinforces its current and continued financial stability. For the year ended December 31, 2022, the Division's actual annual contribution was \$20.9 million as recommended and determined by an independent actuarial valuation study.

## **REQUESTS FOR INFORMATION**

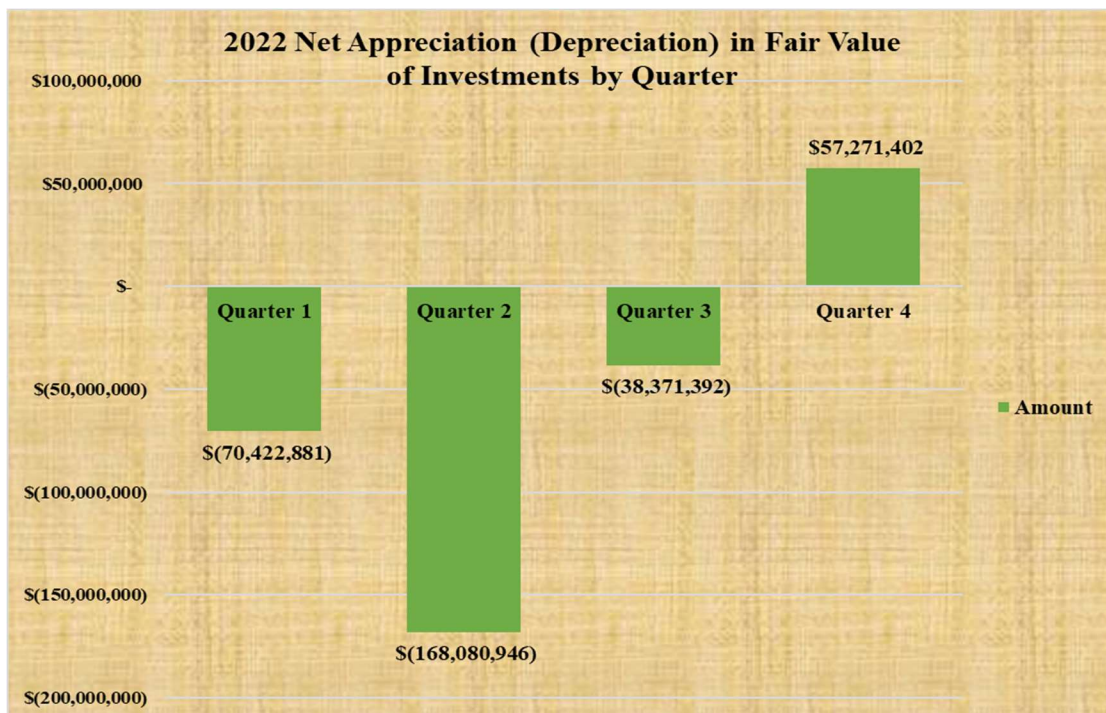
Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

Memphis Light, Gas and Water Division  
Manager of Insurance & Pension  
P.O. Box 430  
Memphis, TN 38101

**Graph 4 (a)**



**Graph 4 (b)**





**RETIREMENT AND PENSION SYSTEM**  
**STATEMENTS OF FIDUCIARY NET POSITION**  
**December 31, 2022 and 2021**

	December 31	
	2022	2021
<b>Assets</b>		
Cash and cash equivalents	\$ 22,933,163	\$ 36,296,890
Receivables:		
Interest, dividends, and real estate receivable	3,194,043	3,211,540
Receivable for securities sold	3,602,229	11,851,397
Employee contributions receivable	842,127	810,062
Collateral held in trust for securities on loan	35,968,344	74,913,020
Total receivables	43,606,743	90,786,019
Investments:		
Equity Funds:		
Common stock - domestic	128,092,048	308,432,909
Common stock & mutual funds - international	123,890,292	190,293,750
Common stock index mutual funds - domestic	406,586,696	427,160,140
Fixed Income Funds:		
Corporate bonds - domestic	42,654,543	49,916,841
Corporate bonds - international	28,526,650	37,606,653
Corporate convertible bond - international	327,792	826,452
Government bonds - domestic	10,819,618	7,728,224
Government bonds - international	22,266,809	48,263,961
Global bond - international	39,389,711	59,067,374
Government agencies - domestic	8,461,043	11,895,863
Government agencies - international	6,806,267	8,282,766
Asset backed securities - domestic	4,134,284	2,450,383
Asset backed securities - international	1,036,579	2,133,799
Mortgage backed securities - domestic	18,522,476	26,745,120
Fixed income ETF - domestic	34,909,403	-
Securitized asset fund - domestic	15,499,664	39,982,607
Special Strategies Funds:		
Private equity - domestic	105,165,084	87,815,807
Private equity - international	18,451,129	14,680,854
Distressed debt - domestic	49,924,440	44,584,994
Distressed debt - international	39,084,082	65,480,473
Private debt fund - domestic	13,317,733	-
Multi-asset fund - domestic	19,396,317	16,039,620
Life settlement funds - domestic	77,171,359	80,564,330
Equity hedge fund - domestic	18,436,762	-
Real Estate Funds:		
Real estate	290,290,473	270,934,646
Short-Term Investment	796,239	5,266,880
Total investments	1,523,957,493	1,806,154,446
Total assets	1,590,497,399	1,933,237,355
<b>Liabilities</b>		
Collateral subject to return to borrowers	35,968,344	74,913,020
Liability for securities purchased	870,168	12,413,728
Accrued liabilities	1,567,310	2,010,115
Total liabilities	38,405,822	89,336,863
<b>Net position restricted for Pensions</b>	\$ 1,552,091,577	\$ 1,843,900,492

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





**RETIREMENT AND PENSION SYSTEM**  
**STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION**  
**Years Ended December 31, 2022 and 2021**

	Years Ended December 31	
	2022	2021
<b>Additions</b>		
Contributions		
Employer	\$ 20,941,090	\$ 24,199,396
Member	14,657,153	14,215,567
Total contributions	35,598,243	38,414,963
Investment Income (Loss)		
Net appreciation (depreciation) in fair value of investments	(219,603,817)	236,242,474
Interest income	10,030,421	12,026,610
Dividend income	7,307,914	4,737,267
Real estate income	4,922,153	4,695,055
Other income	52,839	86,594
Less: investment expenses, other than from securities lending	(3,784,226)	(5,384,897)
Net investment income (loss), other than from securities lending	(201,074,716)	252,403,103
Securities lending income	999,539	185,484
Securities lending expenses:		
Borrower rebates	(766,519)	56,694
Management fees	(46,556)	(48,394)
Total securities lending expenses	(813,075)	8,300
Net securities lending income	186,464	193,784
Net investment income (loss)	(200,888,252)	252,596,887
Total additions	(165,290,009)	291,011,850
<b>Deductions</b>		
Benefit payments:		
Retired members	99,781,917	96,763,620
Survivors (spouse and children)	17,835,983	17,087,589
Disabled members	415,912	612,468
Deferred vested members	307,177	305,792
Alternate payees	313,734	289,080
Total benefit payments	118,654,723	115,058,549
Contributions refund	6,977,796	6,722,065
Administrative expenses	886,387	867,502
Total deductions	126,518,906	122,648,116
Increase (decrease) in net position	(291,808,915)	168,363,734
<b>Net position restricted for Pensions</b>		
Beginning of year	1,843,900,492	1,675,536,758
End of year	\$ 1,552,091,577	\$ 1,843,900,492

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



## **1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### **Organization**

The Memphis Light, Gas and Water Division (“MLGW” or “the Division”), a division of the City of Memphis, under a resolution by the Board of Commissioners, established the Memphis Light, Gas and Water Division Retirement and Pension System (“the Plan”) to recognize and reward employee contributions to the operations of the Division. The MLGW Pension Plan, which was amended and restated effective January 1, 2015, is part of the Division’s overall plan to provide for the future security of its employees and their family members. The MLGW Pension Plan is a single employer defined benefit plan.

The MLGW Pension Plan is funded by contributions made by the employees and by the Division. Benefits under the MLGW Pension Plan normally are paid upon retirement, death, disability, or separation of service. The MLGW Pension Plan is administered by the MLGW Pension Board under the direction of the Board of Commissioners.

The MLGW Pension Board establishes the policies of the MLGW Pension Plan. The Board is comprised of one member of the Board of Commissioners of the Division (who serves as Chairman of the Pension Board), the President of the Division (who serves as Vice-Chairman), the SVP, CFO & CAO (Secretary-Treasurer) of the Division, two active Participants who have vested rights under the MLGW Pension Plan and who are elected by Participants, one retired Participant who is elected by retired Participants, and one citizen of Shelby County who is appointed by the Board of Commissioners of the Division. The members of the Pension Board serve without compensation.

The MLGW Pension Board shall fulfill the duties of the fiduciary responsible for the MLGW Pension Plan administration and shall have overall control of the administration of the Plan, with all powers and discretion necessary to enable it to properly carry out its duties; provided the responsibility and authority to administer the Plan on a day-to-day basis shall be delegated to the Pension Department.

### **Basis of Presentation**

The financial statements present only the Memphis Light, Gas and Water Division Retirement and Pension System in conformity with accounting principles generally accepted in the United States of America that are applicable to a fiduciary fund of a governmental trust unit. The accompanying financial statements present the separate financial position and results of operations for the MLGW Pension Plan, but do not present the financial position and results of operations of MLGW, a division of the City of Memphis (the “City”). Accordingly, the accompanying disclosure relate separately to the MLGW Pension Plan, as applicable, and not collectively to MLGW. These statements are not intended to present the financial position of the City, the results of the City’s operations, or the cash flows of the City’s funds.



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

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**Reclassifications**

Certain items in the 2021 Statement of Net Position have been reclassified for comparative purposes to conform with the 2022 presentation. To be consistent with the Plan's investment policy statement, a domestic private equity fund valued at \$19.4 million at December 31, 2021, was reclassified to real estate in 2022. This reclassification had no effect on the previously reported net position restricted for pensions.

**Basis of Accounting**

The MLGW Pension Plan's financial statements are prepared using the accrual basis of accounting in accordance with the Governmental Accounting Standards Board ("GASB"). MLGW and member contributions are recognized in the period in which member services are performed. Investment income is recognized when earned. Gains and losses on sales and exchanges of investments are recognized on the transaction date. Benefits and refunds are recognized when paid in accordance with the MLGW Pension Plan's provisions.

**Administrative Expenses**

Expenses for the administration of the MLGW Pension Plan are paid from net investment earnings.

**Use of Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the reported amounts in the financial statements and accompanying notes. Actual results could differ from those estimates and assumptions.

**Cash and Cash Equivalents**

The MLGW Pension Plan considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

**Investments**

The MLGW Pension Plan's investments are stated at fair value. Securities traded on a national securities exchange are valued at the last reported sales price on the last business day of the fiscal year. Investments traded in the over-the-counter market and listed securities for which no sale was reported on that date are valued at the average of the last reported bid and ask prices.



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

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The equity securities are comprised of both domestic and international securities.

For debt securities that do not have an established fair value, MLGW's Custodian determines the value using basic assumptive information received from an independent pricing evaluator such as Bloomberg or Reuter's Analytics after the prices for the majority of corporate deals are obtained.

The fair value of the fixed income fund's holdings is determined by the investment manager who uses independent pricing providers, if available. As an alternative, the investment manager may utilize independent pricing sources such as broker quotes and apply a price in line with the market or use valuation models to determine an appropriate price. The fair value of the securitized asset fund is measured at the Net Asset Value ("NAV") provided by the investment manager.

The special strategies funds are comprised of domestic and international investments in limited partnerships and other entities in the following categories: private equity, distressed debt, private debt, multi-asset, life settlement, and equity hedge fund. The fair value of these funds is based on information obtained from the fund's monthly and quarterly statements. They are measured at NAV per share or its equivalent. Private equity domestic includes GPB Holdings II, LP, valued at \$30.9 million, the fair value at December 31, 2021, which is the most recent available.

The real estate funds are measured at the NAV based on information obtained from the investor shareholder quarterly statements.

Short-term investments are comprised of short-term U.S. treasury bills and notes and cash collateral.

Collective Investment Trusts ("CITs") were incorporated into the Plan in 2015 and are designed to streamline investment management for the investment manager by combining assets from different clients into a single fund with a specific investment strategy, similar to a mutual fund. They provide for pooling of assets of employee benefits trusts, that meet all of the conditions as permitted under Revenue Rulings 81-100 and 2011-1, or subsequent guidance, and that are operated or maintained exclusively for the commingling and collective investment of funds from other trusts.

## **2. RETIREMENT AND PENSION SYSTEM**

### **Plan Description**

The Memphis Light, Gas and Water Division Pension Board is the administrator of a single-employer retirement system established by the Division to provide retirement benefits for its employees. Prior to 1988, the retirement system included two contributory defined benefit plans (the "1948 Plan" and the "1978 Plan"). The 1948 Plan and the 1978 Plan were amended and superseded as of July 1, 1988. All employees who were members of the 1948 Plan and the 1978 Plan automatically became members of the amended, restated, and consolidated Memphis Light, Gas and Water Division Retirement and Pension System, a division of the City of Memphis, Tennessee. The MLGW Pension Plan was amended and restated effective January 1, 2015. Participants in the 1948 Plan (which includes those employees



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

hired before July 1, 1978) are entitled to the greater of their retirement benefit determined under the 1948 Plan or their retirement benefit under the MLGW Pension Plan.

The MLGW Pension Plan covers permanent full-time employees and appointed commissioners who opt to participate.

Membership at December 31, 2022 and 2021 consisted of:

	2022	2021
Retired members or beneficiaries currently receiving benefits	2,717	2,700
Vested terminated members entitled to but not yet receiving benefits *	31	34
Active members	2,416	2,426
Total	5,164	5,160

\* Includes participants on long-term disability

The MLGW Pension Plan provides death and disability benefits as well as retirement benefits. MLGW Pension Plan members hired prior to January 1, 2014, who attain the age of fifty-five (55) and retire on or after ten (10) years of creditable service, or attain the age of seventy (70) and retire on or after five (5) years of creditable service, or attain twenty-five (25) years of creditable service regardless of age are entitled to an annual retirement allowance. The allowance is computed by multiplying the applicable percentage for the age of retirement times the number of years of creditable service, which equals the benefit percentage. The benefit percentage is then multiplied by the final average compensation to obtain the monthly retirement allowance.

MLGW Pension Plan members hired on or after January 1, 2014, who attain the age of sixty (60) and retire on or after ten (10) years of creditable service or attain the age of seventy (70) and retire on or after five (5) years of creditable service or attain the age of fifty-five (55) with twenty-five (25) years of creditable service are entitled to an annual retirement allowance. The allowance is computed by multiplying the applicable percentage for the age of retirement times the number of years of creditable service, which equals the benefit percentage. The benefit percentage is then multiplied by the final average compensation to obtain the monthly retirement allowance.

Members hired on or after January 1, 2014, can elect a single annuity or joint and survivor annuity. For members who elect the single annuity, spousal consent is required. The single annuity is automatically applied for members hired prior to January 1, 2014. If the joint and survivor annuity is elected, actuarial factors will be applied against the member's monthly retirement allowance to cover the cost of a pension paid to a qualifying surviving spouse.



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

Effective January 1, 2001, the following table reflects the benefit percentage for each year of creditable service at the applicable retirement age under the MLGW Pension Plan:

Retirement Age	Benefit Percentage for Each Year of Creditable Service
59 1/2 and less	2.25%
60	2.30%
61	2.40%
62 and above	2.50%

The annual retirement allowance of a 1948 Plan or the 1978 Plan member who was a member at the time of the adoption of the MLGW Pension Plan shall not be less than the annual retirement allowance the member would have had under the 1948 Plan or the 1978 Plan in effect on June 30, 1988. A member of the 1948 Plan at the time of adoption of the MLGW Pension Plan may retire at less than age fifty-five with twenty-five or more years of creditable service with benefits computed only under the 1948 Plan.

For the purpose of determining whether the benefit under the 1948 Plan or the 1978 Plan is more or less than the benefit under the MLGW Pension Plan, the benefit shall be measured by the retirement allowance for the retiring member.

Final average compensation is the member's basic earnings (which includes member contributions pursuant to Section 414(h) and Section 457 of the Internal Revenue Code (the "Code") for the three (3) consecutive years of creditable service if less than thirty (30) years, two (2) consecutive years if more than thirty (30) years and one (1) year if 35 or more years of creditable service during which the compensation was the highest) plus work out of classification pay, shift differential pay, and automobile allowance for such employees designated by Resolution of the Board of Commissioners.

The annual retirement allowance shall not exceed 85.0% of the member's final average compensation. The 2021 minimum monthly retirement benefit for all members was the greater of \$50 per year of service or \$500 per month. Effective January 1, 2022, the minimum monthly retirement benefit is the greater of \$60 per year of service or \$600 per month.

Additionally, as of July 1 of each plan year, each retired participant who (1) has attained age fifty-six (56) on such date and (2) has been terminated from the employment of the Division for at least twelve (12) months, shall be entitled to an increase in the amount of his/her monthly benefit under The MLGW Pension Plan equal to the cost of living adjustment.



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

A surviving spouse or a handicapped child receiving death benefits shall be entitled to a cost of living adjustment if the surviving spouse or handicapped child has attained age fifty-six (56) and the deceased participant has separated from service at least twelve (12) months prior to the beginning of the plan year.

The cost of living adjustment shall be equal to the monthly benefit payable to the participant, surviving spouse, or handicapped child under the MLGW Pension Plan multiplied by the product of the (i) percent change in the Consumer Price Index for the immediately preceding calendar year and (ii) the applicable percentage of CPI increase. The applicable percentage of CPI increase shall be determined based on the age of the participant, surviving spouse, or handicapped child as of the first day of July of the plan year.

The cost of living adjustment is made as follows:

Age	Percentage of CPI Increase
56-58	30%
59-61	60%
62 and older	75%

The cost of living adjustment for any retired participant, surviving spouse, or handicapped child in any plan year shall not exceed five percent (5%) of the retired participant's, surviving spouse's, or handicapped child's benefit under the MLGW Pension Plan for the immediately preceding plan year. Under no circumstances shall the cost of living adjustment result in a decrease in the benefit of a retired participant, surviving spouse, or handicapped child.

**Contributions**

Members covered under the MLGW Pension Plan are required to contribute eight percent (8.0%) of pensionable earnings each payroll period to the MLGW Pension Plan. Members with thirty-five (35) or more years of creditable service or an annual retirement allowance of 85.0% shall contribute the applicable percentage only on that portion of their compensation which is in excess of their annual compensation at the time they attained their thirty-five (35) years of creditable service or an annual retirement allowance of 85.0%. Benefit and contribution provisions may be amended only by the Pension Board, MLGW Board of Commissioners, and the Memphis City Council.

The Actuarially Determined Contribution ("ADC") for the current year was determined based on the actuarial valuation using the entry age normal cost method. The 2022 contribution represented 100% of the ADC. An explanation of the contributions can be found on the footnote of the Schedule of Division's Contributions to the Retirement and Pension System.



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

**3. NET PENSION LIABILITY**

The components of the net pension liability (asset) of the Pension System at December 31, 2022 and 2021, were as follows:

	2022	2021
Total Pension Liability	<b>\$ 1,718,978,903</b>	\$ 1,643,127,789
Plan Fiduciary Net Position	<b>1,552,091,577</b>	1,843,900,492
Net Pension Liability (Asset)	<b><u>\$ 166,887,326</u></b>	<b><u>\$ (200,772,703)</u></b>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	<b>90.29%</b>	112.22%

**Actuarial Assumptions:**

The Total Pension Liability as of December 31, 2022 and 2021, was determined based on the results of an actuarial valuation as of January 1, 2023 and 2022, respectively, based on census data collected as of December 31, 2022 and 2021, respectively. The following actuarial assumptions apply to all periods included in the measurement.

Inflation	2.50%
Salary increases	Inflation plus merit increases that vary by age and service, ranging from 0.00% to 8.50%
Investment rate of return	7.00%, net of pension plan investment expense, including inflation.
Cost-of-living adjustments	0.750% for ages 56-58 1.500% for ages 59-61 1.875% for ages 62 and above, and all disabled participants





**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

Pre-retirement mortality rates are based on the PRI-2012 Employee Mortality Table with sex-distinct rates. Healthy annuitant mortality rates are based on the PRI-2012 Healthy Annuitant Mortality Table with sex-distinct rates, plus a 20% load. Disabled annuitant mortality rates are based on the PRI-2012 Disabled Retiree Mortality Table with sex-distinct rates, plus a 20% load. Beneficiary mortality rates are based on the PRI-2012 Contingent Survivor Mortality Table with sex-distinct rates, plus a 20% load. All the aforementioned mortality tables above are projected generationally with Scale SSA-2019.

The actuarial assumptions used in the January 1, 2023, valuation were based on the results of an experience study for the five-year period ended December 31, 2018.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns 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, adding expected inflation. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u> <sup>1</sup>
Domestic Equity	35%	6.91%
International Equity	9%	7.21%
Fixed Income	24%	1.61%
Alternatives	15%	7.71%
Real Estate	15%	3.61%
Short Term Investments	2%	0.71%
<b>Total</b>	100%	5.17%

<sup>1</sup> The expected real rates of return are net of inflation. The total percentage represents the weighted average total.

**Discount Rate**

The discount rate used to measure the Total Pension Liability (“TPL”) was 7.00% as of December 31, 2022 and December 31, 2021. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Plan Fiduciary Net Position (“FNP”) was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both December 31, 2022 and December 31, 2021.



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**Sensitivity of the net pension liability (asset) to changes in the discount rate**

The following presents the Net Pension Liability (Asset) of the System as of December 31, 2022 and December 31, 2021, calculated using the discount rate of 7.00% as well as what the System’s Net Pension Liability (Asset), would be if it were calculated using a discount rate that is one percentage-point lower (6.00%) or one percentage-point higher (8.00%) than the current rate:

	<b>2022</b>		
	<b>Current Discount</b>		
	<b>1% Decrease (6.00%)</b>	<b>Rate (7.00%)</b>	<b>1% Increase (8.00%)</b>
Net Pension Liability	\$ 353,779,537	\$ 166,887,326	\$ 9,876,841
	<b>2021</b>		
	<b>Current Discount</b>		
	<b>1% Decrease (6.00%)</b>	<b>Rate (7.00%)</b>	<b>1% Increase (8.00%)</b>
Net Pension Liability (Asset)	\$ (20,293,522)	\$ (200,772,703)	\$ (352,141,680)

**4. DEPOSITS AND INVESTMENTS**

**Deposits**

As of December 31, 2022 and 2021, MLGW Pension Plan’s deposits were fully insured or collateralized in accordance with state law.

**Investments**

The overall investment objective is to provide for the funding needs of the MLGW Pension Plan. The Pension Board (“Investment Committee”) has formulated specific performance standards for the overall fund as well as its components. Underlying these standards is the belief that management of the fund should be directed toward achieving long-term growth of the assets by focusing on achieving an above average rate of return without the assumption of undue risk. In addition, the fund must keep pace with inflation and meet actuarial assumptions. The Investment Committee is charged with the responsibility of managing the assets of the MLGW Pension Plan.



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The Investment Committee is authorized and permitted to engage the services of registered investment managers who possess the necessary specialized research facilities and skilled professionals to meet the investment objectives and guidelines of The MLGW Pension Plan. The Investment Committee requires the investment managers to adhere to the “prudent person rule” under such federal and state laws that now apply, or that may in the future apply in regard to the investing of MLGW Pension Plan’s assets. The Investment Committee is responsible for selecting investment managers and reviewing and evaluating investment results in the context of predetermined performance standards.

The Investment Committee engages an investment consultant, an independent investment consulting firm. The investment consultant is charged with keeping the Investment Committee, SVP, CFO & CAO (Secretary-Treasurer), and Manager of Treasury Management and/or their respective designees, informed of the investment results being achieved by the MLGW Pension Plan. The investment consultant will also provide data pertaining to the MLGW Pension Plan’s asset allocation structure and the risk (volatility) associated with the Plan’s investment allocation.

The Investment Committee has the responsibility of determining the asset allocation that offers the highest probability of achieving the investment goals and objectives. The target asset allocation of the MLGW Pension Plan is designed to give balance to the overall structure of the plan’s investment program over a long period of time. Therefore, the Investment Committee must update and revise the asset mix as the financial needs of the MLGW Pension Plan are analyzed and reviewed, as capital markets change, and as they receive the advice and guidance of the investment consultant regarding both the financial needs of the Plan and the changes in the capital markets. The Investment Committee establishes the maximum exposures on some of the asset classes being employed by the Plan.

In compliance with the MLGW Retirement and Pension Fund investment policy, the MLGW Pension Plan may invest in the following major asset classes: domestic and international equities, global fixed income, special strategies, real estate, and short-term investments.

*See next page*



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As of December 31, 2022, the MLGW Pension Plan's investments consisted of the following:

Investment Type	Investments	Actual Exposure	Maximum Exposure	Minimum Exposure
<b>Domestic Equity Funds:</b>				
Common stock - domestic	\$ 128,092,048	8.41%		
Common stock index - domestic	406,586,696	26.68%		
Equity ETF - domestic	0	0.00%		
Subtotal Domestic Equity Funds:	534,678,744	35.08%	65%	20%
<b>International Equity Funds:</b>				
Common stock - international	123,890,292	8.13%		
Subtotal International Equity Funds:	123,890,292	8.13%	25%	0%
<b>Global Fixed Income Funds:</b>				
Corporate bond - domestic	42,654,543	2.80%		
Corporate bond - international	28,526,650	1.87%		
Convertible corporate bond - international	327,792	0.02%		
Government bonds - domestic	10,819,618	0.71%		
Government bonds - international	22,266,809	1.46%		
Global bond - international	39,389,711	2.58%		
Government agencies - domestic	8,461,043	0.56%		
Government agencies - domestic	6,806,267	0.45%		
Asset backed securities-domestic	4,134,284	0.27%		
Asset backed securities-international	1,036,579	0.07%		
Mortgage backed securities	18,522,476	1.22%		
Fixed income ETF - domestic	34,909,403	2.29%		
Securitized asset fund - domestic	15,499,664	1.02%		
Subtotal Global Fixed Income Funds:	233,354,839	15.31%	65%	15%
<b>Special Strategies Funds:</b>				
Private equity - domestic	105,165,084	6.90%		
Private equity - international	18,451,129	1.21%		
Distressed debt - domestic	49,924,440	3.28%		
Distressed debt - international	39,084,082	2.56%		
Private debt fund - domestic	13,317,733	0.87%		
Multi-asset fund - domestic	19,396,317	1.27%		
Life settlement funds - domestic	77,171,359	5.06%		
Equity hedge fund - domestic	18,436,762	1.21%		
Subtotal Special Strategies Funds:	340,946,906	22.37%	25%	0%
<b>Real Estate Funds</b>				
Real estate	290,290,473	19.05%		
Subtotal Real Estate Funds:	290,290,473	19.05%	20%	0%
<b>Short-Term Investments</b>	796,239	0.05%	40%	0%
<b>Total Investments</b>	<b>\$ 1,523,957,493</b>	<b>100.00%</b>		



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The MLGW Pension Plan's investments (including items bought, sold, as well as, held during the year) appreciated (depreciated) in value, as follows during the years ended December 31:

	<b>Net Appreciation (Depreciation) in Fair Value of Investments</b>	
	<b>2022</b>	<b>2021</b>
Investments:		
<b>Equity Funds:</b>		
Common stock - domestic	\$ (86,379,820)	\$ 44,785,996
Common stock & mutual funds - international	(34,909,005)	14,001,684
Common stock index mutual fund - domestic	(69,783,848)	96,916,777
Subtotal Equity Funds:	(191,072,673)	155,704,457
<b>Fixed Income Funds:</b>		
Corp. Bonds; Gov't Bonds; Global Bond; Gov't Agencies; Asset backed Securities; Mortgage Backed Securities; Short-Term Investments - domestic	(21,726,451)	(1,561,939)
Corp. Bonds; Convertible Corp. Bond; Gov't Bonds; Global Bond; Gov't Agencies; Asset backed Securities; Mortgage Backed Securities; Short-Term Investments - international	(28,327,371)	(11,200,084)
Fixed income ETF - domestic	(90,564.00)	-
Securitized asset fund - domestic	(1,126,679)	1,988,757
Subtotal Fixed Income Funds:	(51,271,065)	(10,773,266)
<b>Special Strategies Funds:</b>		
Private equity funds - domestic	3,477,607	16,401,916
Private equity funds - international	(718,490)	2,731,785
Distressed debt funds - domestic	811,982	1,295,766
Distressed debt funds - international	509,281	23,986,626
Private debt fund - domestic	(331,058)	-
Multi-asset fund - domestic	(643,303)	1,666,347
Life settlement funds - domestic	2,103,275	3,989,771
Equity hedge fund - domestic	(1,563,238)	-
Subtotal Special Strategies Funds:	3,646,056	50,072,211
<b>Real Estate Funds</b>	19,093,865	41,239,072
<b>Total Net Appreciation (Depreciation) of Investments</b>	<b>\$ (219,603,817)</b>	<b>\$ 236,242,474</b>



**RETIREMENT AND PENSION SYSTEM**  
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### **Rate of Return**

For the years ended December 31, 2022 and 2021, the annual money-weighted rate of return on the Plan's investments, net of investment expenses, was (11.22 %) and 15.40 %, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### **Credit Risk**

*Credit risk* for investments is the risk that an issuer or other counterparty to an investment will default and not meet its obligations. This risk is measured by the credit quality ratings issued by nationally recognized statistical rating organizations. Investments in obligations explicitly guaranteed by the U.S. Government are not considered to have credit risk.

The MLGW Pension Plan's investment managers are co-fiduciaries of the fund. All investment managers are expected to invest the assets entrusted to them according to the goals and objectives of the Fund and within the constraints placed on them by the Investment Committee. While each manager will have his/her own individual set of guidelines, there are certain responsibilities specific to all managers.

The global fixed income manager's goal is to exceed the return (net of fees) above appropriate bond indices, have a minimum quality rating of investment grade "BBB-, Baa3, etc." for all fixed income and have no holdings of any one security of more than five (5.0%) in the investment manager's portfolio. The average duration of the portfolio should not exceed the appropriate index by more than twenty percent (20%). No more than ten percent (10%) of an investment manager portfolio may be invested with a single corporate issuer (excluding commingled investments).

An investment manager may invest no more than twenty-five percent (25%) of the portfolio in the securities of a single non-US government guaranteed agency or supranational authority (excluding commingled investments or those with written approval of the Investment Committee). Additionally, an investment manager may invest no more than twenty-five percent (25%) of the portfolio in emerging markets debt securities (excluding commingled investments or those approved by the Investment Committee).

Approximately 41.4% of the MLGW Pension Plan's investment portfolio is held in partnerships. Partnerships establish their own market value and set their own pricing. Partnerships include special strategies and real estate funds.



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The following tables represent the MLGW Pension Plan's investment exposure to credit risk based on Standard & Poor's and Moody's Investor Service ratings:

As of December 31, 2022 the Plan's investments were rated as follows by Standard & Poor's:

Investment Type	AAA	AA	A	BBB	BB	B	CCC	CC	D	Not Rated/ Categorized or Quality Rating not Available	US Government Guaranteed	Total
Asset Backed Securities			\$ 341,965	\$ 524,934						\$ 4,233,643	\$ 70,321	\$ 5,170,863
Commercial Mortgage-Backed				295,127						12,591,195		12,886,322
Corporate Bonds	510,175	6,207,509	15,906,378	25,691,058	4,480,766	3,924,645	144,129			14,316,534		71,181,194
Corporate Convertible Bonds					327,792							327,792
Funds- Fixed Income ETF										34,909,403		34,909,403
Funds - Short Term Investment										17,986,177		17,986,177
Government Agencies	360,337	5,308,327		1,824,947	145,186					1,386,595	6,241,918	15,267,310
Government Bonds		140,650	664,145	5,357,087	4,457,186	2,585,005	939,174	255,657	210,472	5,715,071	10,610,998	30,935,445
Government Mortgage Backed Securities											2,660,180	2,660,180
Government Issued Commercial Mortgage-Backed											2,143,107	2,143,107
Life Settlement Funds										14,299,909		14,299,909
Municipal/Provincial Bonds										508,076		508,076
Non-Government Backed C.M.O.s										832,867		832,867
Short Term Bills and Notes											796,239	796,239
Sukuk				868,334						774,571		1,642,905
Unit Trust Bonds										39,389,711		39,389,711
<b>Total Market Value by Rating</b>	<b>\$ 870,512</b>	<b>\$ 11,656,486</b>	<b>\$ 16,912,488</b>	<b>\$ 34,561,487</b>	<b>\$ 9,410,930</b>	<b>\$ 6,509,650</b>	<b>\$ 1,083,303</b>	<b>\$ 255,657</b>	<b>\$ 210,472</b>	<b>\$ 146,943,752</b>	<b>\$ 22,522,763</b>	<b>\$ 250,937,500</b>

As of December 31, 2022 the Plan's investments were rated as follows by Moody's Investor Services:

Investment Type	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	C	Not Rated/ Categorized or Quality Rating not Available	US Government Guaranteed	Total
Asset Backed Securities			\$ 1,027,638	\$ 1,531,622	\$ 635,326					\$ 1,905,956	\$ 70,321	\$ 5,170,863
Commercial Mortgage-Backed				295,127	324,983					12,266,212		12,886,322
Corporate Bonds	2,422,444	5,994,820	16,549,682	25,133,591	5,657,530	3,011,958	1,255,768			11,155,401		71,181,194
Corporate Convertible Bonds					327,792							327,792
Funds- Fixed Income ETF										34,909,403		34,909,403
Funds - Short Term Investment	17,986,177											17,986,177
Government Agencies	7,217,494	704,730		1,243,214	650,274	1,273,126	208,949			1,521,351	2,448,172	15,267,310
Government Bonds	9,632,679	440,106	1,636,164	6,815,808	3,297,312	2,592,575	140,156	255,657	111,125	5,029,455	984,408	30,935,445
Government Mortgage Backed Securities											2,660,180	2,660,180
Government Issued Commercial Mortgage-Backed											2,143,107	2,143,107
Life Settlement Funds										14,299,909		14,299,909
Municipal/Provincial Bonds				338,166						169,910		508,076
Non-Government Backed C.M.O.s										832,867		832,867
Short Term Bills and Notes											796,239	796,239
Sukuk			508,734	868,334		265,837						1,642,905
Unit Trust Bonds										39,389,711		39,389,711
<b>Total Market Value by Rating</b>	<b>\$ 37,258,794</b>	<b>\$ 7,139,656</b>	<b>\$ 19,722,218</b>	<b>\$ 36,225,862</b>	<b>\$ 10,893,217</b>	<b>\$ 7,143,496</b>	<b>\$ 1,604,873</b>	<b>\$ 255,657</b>	<b>\$ 111,125</b>	<b>\$ 121,480,175</b>	<b>\$ 9,102,427</b>	<b>\$ 250,937,500</b>



### **Custodial Credit Risk**

*Custodial credit risk* for investments is the risk that, in the event of failure of the counterparty to a transaction, the Fund will not be able to recover the value of its investment or collateral securities that are in the possession of another party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either the counterparty, or the counterparty's trust department or agent but not in the name of Fund. Investments in external investment pools and in open-end mutual funds are not exposed to custodial credit risks because their existence is not evidenced by securities that exist in physical or book entry form. To further limit Custodial Credit Risk exposure all cash and securities in physical or book entry form shall be held in safekeeping by a designated third-party custodian, its sub-custodians or depositories in the name of the designated fund. As part of its function under the Investment Policy Statement, the Investment Committee, or its designee, receives and periodically reviews lists identifying assets held in designated custodial name or depositories. As of December 31, 2022, the MLGW Plan investments were not exposed to custodial risk, were not subject to exposure, or the exposure could not be determined.

### **Concentration of Credit Risk**

*Concentration of credit risk* is the risk of loss in relation to the amount of an investment in a single issuer. Governments should provide information about the concentration of risk associated with their investments by disclosing any one issuer that represents 5.0% or more of the total investments.

The MLGW Pension Plan's charter states that the Pension Board shall be able to make such investments as authorized by state law and as it deems proper. No Investment Manager should have more than 15% of the total portfolio of the Fund, excluding passively managed strategies such as index mutual funds, indexed ETFs, and other indexed commingled funds. The MLGW Pension Plan's fund will not have holdings in any one issuer of more than 5.0 to 10.0%, excluding US government and agency issues, investments in mutual funds and investments diversified to limit the exposure to any one issuer.

Of the investments subject to concentration of credit risk, there were no investments in any one issuer that represented 5.0% or more of the fund.

### **Interest Rate Risk**

*Interest rate risk* is borne by changes in interest rates that unfavorably affect the fair value of an investment in debt securities. The MLGW Pension Plan's investment policy does not limit investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.





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At December 31, 2022, the MLGW Pension Plan had the following investments with effective duration:

<u>Investment Type</u>	<u>Market Value</u>	<u>Effective Duration (in years)</u>
Asset Backed Securities	\$ 5,170,863	3.0
Commercial Mortgage-Backed	12,886,322	4.9
Corporate Bonds	67,859,962	6.0
Corporate Convertible Bonds	327,792	5.7
Government Agencies	15,267,310	10.3
Government Bonds	30,724,973	6.0
Government Mortgage Backed Securities	2,660,180	8.3
Gov't-issued Commercial Mortgage-Backed	2,143,107	8.1
Municipal/Provincial Bonds	508,076	9.0
Non-Government Backed C.M.O.s	315,196	5.5
Short Term Bills and Notes	796,239	0.1
Sukuk	<u>1,642,905</u>	4.8
Subtotal:	140,302,925	
Corporate Bonds	3,321,232	Unavailable
Funds - Fixed Income ETF	34,909,403	Unavailable
Funds - Short term Investments	17,986,177	Unavailable
Government Bonds	210,472	Unavailable
Life Settlement Fund - Corry Capital	14,299,909	Unavailable
Non-Government Backed C.M.O.s	517,671	Unavailable
Unit Trust Bonds	<u>39,389,711</u>	Unavailable
Subtotal:	<u>110,634,575</u>	
<b>Total Investments with Effective Duration</b>	<b><u>\$ 250,937,500</u></b>	



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**Foreign Currency Risk**

*Foreign currency risk* is the risk that an investor will have to close out a position in a foreign currency at a loss due to an adverse movement in exchange rates.

The MLGW Pension Plan's exposure to foreign currency risk at December 31, 2022, is as follows:

<u>Investments</u>	<u>Currency</u>	<u>Fair Value</u>
Corporate Bonds	Mexican peso	\$ 359,799
Government Agencies	Indian rupee	360,338
Government Agencies	Indonesia rupiah	219,408
Government Agencies	South African rand	338,956
Government Bonds	Euro - Cote d'Ivoire	464,048
Government Bonds	Chilean peso	293,612
Government Bonds	Hungarian forint	804,421
Government Bonds	Mexican peso	2,909,229
Government Bonds	Malaysian ringgit	843,835
Government Bonds	Polish zloty	750,586
Government Bonds	New Romanian leu	689,798
Government Bonds	South African rand	1,434,635
Government Bonds	Thai baht	940,845
<b>Total foreign currency exposure</b>		<b><u><u>\$ 10,409,510</u></u></b>



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### Securities Lending Transactions

The MLGW Pension Plan has authorized The Northern Trust Company (“Agent”) to enter into, on behalf of the plan, securities lending transactions – loans of securities to broker-dealers and other entities in exchange for collateral with a simultaneous agreement to return the collateral for the same securities in the future. MLGW authorizes the Agent to accept in exchange for borrowed securities, cash collateral having an initial market value of at least 102% of the market value of borrowed securities, or 105% of the market value of borrowed securities and collateral if they are denominated in different currencies. The borrower is required to deliver additional collateral when necessary so that the total collateral held by the Agent for all loans to the borrower of all participating lenders will at least equal the market value of all the borrowed securities of all participating lenders loaned to the borrower. The MLGW Pension Plan does not have the ability to pledge or sell collateral securities without a borrower default. The maturities of the investments made with cash collateral do not necessarily match the maturities of securities on loan.

The Agent may terminate a loan at any time and the borrower must deliver equivalent securities to the Agent. The Agent is required to indemnify the plan if the Agent is unable to recover borrowed securities and distributions made due to the Agent’s: 1) failure to make a reasonable determination of the borrower’s creditworthiness, 2) failure to demand adequate collateral on a timely basis or 3) failure to perform its duties in accordance with the lending agreement held with the MLGW Pension Plan.

Collateral held in trust for securities on loan included in the 2022 and 2021 statements of net position consisted of cash and noncash collateral. At December 31, 2022 and 2021, the MLGW Pension Plan had no credit risk exposure to borrowers because the amounts the MLGW Pension Plan owed to the borrowers exceeded the amounts the borrowers owed the MLGW Pension Plan. Investments held by broker-dealers under securities loans consist of the following:

**As of December 31, 2022**

Securities Type	Market Value of Securities on Loan			Collateral Received from Borrowers		
	Cash Collateral	Non-Cash Collateral	Total	Cash Collateral	Non-Cash Collateral <sup>1</sup>	Total
Global Equities	\$ -	2,721	2,721	\$ -	2,876	2,876
U.S. Corporate Fixed	8,750,364	589,901	9,340,265	8,943,085	608,789	9,551,874
U.S. Equities	21,897,740	5,611,283	27,509,023	22,607,928	5,810,349	28,418,277
U.S. Government Fixed	4,328,993	679,163	5,008,156	4,417,331	695,369	5,112,700
<b>Total</b>	<b>\$ 34,977,097</b>	<b>\$ 6,883,068</b>	<b>\$ 41,860,165</b>	<b>\$ 35,968,344</b>	<b>\$ 7,117,383</b>	<b>\$ 43,085,727</b>

**As of December 31, 2021**

Securities Type	Market Value of Securities on Loan			Collateral Received from Borrowers		
	Cash Collateral	Non-Cash Collateral	Total	Cash Collateral	Non-Cash Collateral <sup>1</sup>	Total
Global Equities	\$ 237,206	\$ -	\$ 237,206	\$ 246,500	\$ -	\$ 246,500
Global Corporate Fixed	1,744,351	-	1,744,351	1,815,348	-	1,815,348
Global Equities	-	263,534	263,534	-	276,562	276,562
Global Government Fixed	2,607,587	-	2,607,587	2,678,962	-	2,678,962
U.S. Agencies	629,016	256,966	885,983	642,020	268,047	910,067
U.S. Corporate Fixed	10,641,650	-	10,641,650	10,868,993	-	10,868,993
U.S. Equities	50,219,334	20,255,684	70,475,019	51,677,448	20,926,438	72,603,886
U.S. Government Fixed	6,853,339	1,065,148	7,918,487	6,983,749	1,090,767	8,074,516
<b>Total</b>	<b>\$ 72,932,483</b>	<b>\$ 21,841,332</b>	<b>\$ 94,773,815</b>	<b>\$ 74,913,020</b>	<b>\$ 22,561,814</b>	<b>\$ 97,474,834</b>

<sup>1</sup> Collateral values are estimates based on program wide collateralization levels.

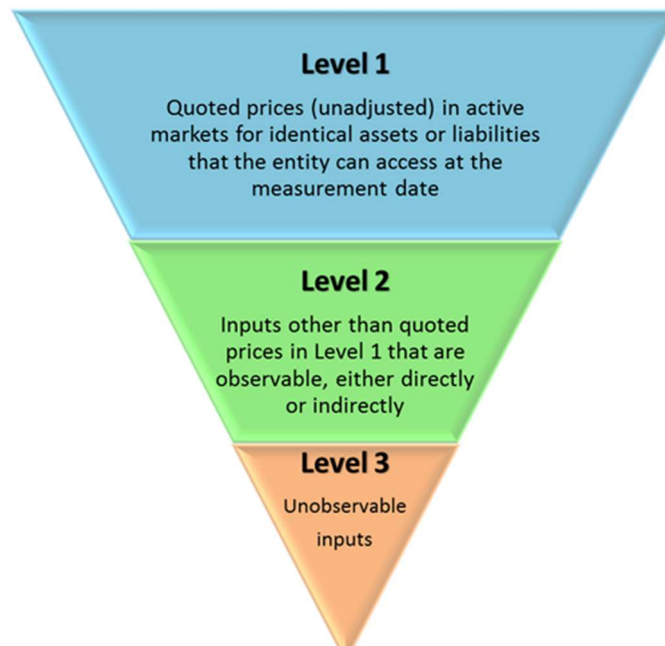
## 5. FAIR VALUE MEASUREMENTS

The definition of fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GASB 72 requires a government to use valuation techniques that are appropriate under the circumstances and for which sufficient data are available to measure fair value. This Statement establishes a hierarchy that prioritizes and ranks the inputs to valuation techniques used to measure fair value based on observability. The accounting standards break down the fair value hierarchy into three levels, based on how observable the inputs are that make up the valuation. The most observable inputs are classified as Level 1, inputs other than quoted prices included within level 1 that are observable for an asset or liability, either directly or indirectly are classified as Level 2, and the unobservable inputs are classified as Level 3.

**Level 1:** Fair value is determined using unadjusted quoted prices for identical assets or liabilities in active markets that are accessible on the measurement date. The MLGW Pension Plan includes short-term securities, debt securities, and equity securities in this level.

**Level 2:** Fair value is determined using quoted market prices for similar asset or liability in active markets; quoted prices for identical or similar asset or liability in inactive market; inputs other than quoted prices that are observable for the asset or liability; market-corroborated inputs. The MLGW Pension Plan includes Sukuk, debt and short-term securities in this level.

**Level 3:** Fair value is determined using unobservable inputs for an asset or liability. As a general rule, Level 3 inputs are those that are difficult to obtain on a regular basis and require verification from an outside party to validate the valuation. Certain MLGW Pension Plan's debt securities are in this level.





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The following tables display information regarding investments measured using the fair value hierarchy at December 31, 2022 and 2021, respectively:

	Fair Value Measurements Using			
	December 31 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by Fair Value Level</b>				
Short-term securities	\$ 796,239	\$ 796,239	\$ -	\$ -
Debt Securities				
Asset backed securities	5,170,864	-	1,892,378	3,278,486
Corporate bonds	71,508,985	-	61,392,587	10,116,398
Debt other	74,299,114	34,909,403	39,389,711	-
Government mortgage-backed securities	4,803,286	-	4,803,286	-
Municipal bonds	508,076	-	508,076	-
Non U.S. government agencies	6,806,267	-	6,806,267	-
Non U.S. government bonds	20,623,904	-	20,512,779	111,125
Non-government mortgage-backed securities	13,719,189	-	2,903,227	10,815,962
U.S. government agencies	8,461,043	-	8,461,043	-
U.S. treasury securities	10,311,543	10,311,543	-	-
Total debt securities	<u>216,212,271</u>	<u>45,220,946</u>	<u>146,669,354</u>	<u>24,321,971</u>
Equity Securities				
Communication services	2,116,610	2,116,610	-	-
Consumer discretionary	13,236,370	13,236,370	-	-
Consumer staples	5,235,046	5,235,046	-	-
Energy	20,066,484	20,066,484	-	-
Equity other	530,205,725	530,205,725	-	-
Financials	16,536,728	16,536,728	-	-
Health care	18,134,989	18,134,989	-	-
Industrials	27,424,652	27,424,652	-	-
Information technology	18,215,627	18,215,627	-	-
Materials	2,832,632	2,832,632	-	-
Real estate	4,492,886	4,492,886	-	-
Utilities	71,286	71,286	-	-
Total equity securities	<u>658,569,035</u>	<u>658,569,035</u>	<u>-</u>	<u>-</u>
Sukuk	1,642,905	-	1,642,905	-
<b>Total investments by fair value level</b>	<b><u>877,220,450</u></b>	<b><u>\$ 704,586,220</u></b>	<b><u>\$ 148,312,259</u></b>	<b><u>\$ 24,321,971</u></b>
<b>Investments measured at the net asset value (NAV) *</b>				
Distressed debt funds	89,008,522			
Equity hedge fund	18,436,762			
Securitized asset fund	15,499,664			
Life settlement funds	77,171,359			
Multi-asset fund	19,396,317			
Private debt fund	13,317,733			
Private equity funds **	123,616,213			
Real estate funds	290,290,473			
<b>Total investments measured at NAV</b>	<b><u>646,737,043</u></b>			
<b>Total Investments</b>	<b><u>\$ 1,523,957,493</u></b>			

\* In accordance with GASB 72, certain investments that were measured at NAV per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the Statements of Fiduciary Net Position.

\*\* Private equity funds includes the MLGW Pension Plan's investment in GPB Holdings II, LP. It is valued at \$30.9 million, the fair value as of December 31, 2021, the most recent available.



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

	December 31 2021	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by Fair Value Level</b>				
Short-term securities	\$ 5,266,880	\$ 5,196,880	\$ 70,000	\$ -
<b>Debt Securities</b>				
Asset backed securities	4,584,182	-	102,135	4,482,047
Corporate bonds	88,349,947	-	73,621,336	14,728,611
Global bond - international	59,067,374	-	59,067,374	-
Government mortgage-backed securities	6,427,951	-	6,421,486	6,465
Municipal bonds	713,731	-	713,731	-
Global government agencies	8,282,766	-	8,282,766	-
Government bonds-international	48,263,961	-	48,100,581	163,380
Non-government mortgage-backed securities	20,317,169	-	3,939,225	16,377,944
U.S. government agencies	11,895,863	-	11,895,863	-
U.S. treasury securities	7,014,493	7,014,493	-	-
Total debt securities	254,917,437	7,014,493	212,144,497	35,758,447
<b>Equity Securities</b>				
Communication services	30,503,297	30,503,297	-	-
Consumer discretionary	37,449,896	37,449,896	-	-
Consumer staples	4,556,990	4,556,990	-	-
Energy	15,390,409	15,390,409	-	-
Equity other	611,444,583	611,444,583	-	-
Financials	31,037,807	31,037,807	-	-
Health care	36,769,877	36,769,877	-	-
Industrials	49,722,622	49,722,622	-	-
Information technology	99,265,292	99,265,292	-	-
Materials	3,298,352	3,298,352	-	-
Real estate	6,447,673	6,447,673	-	-
Total equity securities	925,886,798	925,886,798	-	-
<b>Total investments by fair value level</b>	<b>1,186,071,115</b>	<b>\$ 938,098,171</b>	<b>\$ 212,214,497</b>	<b>\$ 35,758,447</b>
<b>Investments measured at the net asset value (NAV) *</b>				
Distressed debt funds	110,065,467			
Life settlement funds	80,564,330			
Securitized asset fund	39,982,607			
Multi-asset fund	16,039,620			
Private equity funds	102,496,661			
Real estate funds	270,934,646			
<b>Total investments measured at NAV</b>	<b>620,083,331</b>			
<b>Total Investments</b>	<b>\$ 1,806,154,446</b>			



**RETIREMENT AND PENSION SYSTEM**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**Years Ended December 31, 2022 and 2021**

**Investments in Certain Entities that Calculate Net Asset Value (“NAV”) Per Share**

MLGW Pension Plan measures certain investments that do not have a readily determinable fair value using NAV as a practical expedient. The investments measured at NAV as a practical expedient are excluded from the fair value hierarchy because the valuation is not based on actual market inputs, but rather is quantified using the fund’s reported NAV.

The following table displays information regarding investments that use NAV per share (or equivalent) as their fair value measurement:

Investments Measured at the Net Asset Value (NAV)	December 31, 2022				
	Fair Value	Fair Value	Unfunded	Redemption Notice	Redemption Frequency (if
	December 31, 2022	December 31, 2021	Commitments	Period	Currently Eligible)
Distressed debt funds <sup>(1)</sup>	\$ 89,008,522	\$ 110,065,467	\$ 81,061,000	N/A	N/A
Equity hedge fund <sup>(2)</sup>	18,436,762	-	-	March 15, September 15	Semi-annually
Securitized asset fund <sup>(3)</sup>	15,499,664	39,982,607	-	N/A	N/A
Life settlement funds <sup>(4)</sup>	77,171,359	80,564,330	-	90-120 days	Quarterly
Multi-asset fund <sup>(5)</sup>	19,396,317	16,039,620	-	60 days	Quarterly
Private debt fund <sup>(6)</sup>	13,317,733	-	36,476,676	N/A	N/A
Private equity funds <sup>(7)</sup>	123,616,213	102,496,661	59,606,182	N/A	N/A
Real estate funds <sup>(8)</sup>	290,290,473	270,934,646	16,226,182	30 - 91 days	Quarterly or 2 years & 3 months
<b>Total investments measured at NAV</b>	<b>\$ 646,737,043</b>	<b>\$ 620,083,331</b>	<b>\$ 193,370,040</b>		

1. *Distressed debt funds.* This category includes five distressed debt funds that invest in senior secured debt as well as distressed and stressed assets that are restructuring or believed to be misunderstood in the marketplace. The MLGW Pension Plan investment in each fund is generally not subject to redemption and is normally returned through distributions as a result of the liquidation. It is expected that the underlying assets of the funds will be liquidated over the next 1 to 8 years.
2. *Equity hedge fund.* This category is composed of a firm that seeks to preserve capital in all markets and provide a 12-15% net return over rolling 5 year periods. Its portfolio is comprised of premier, fundamentally based, long/short equity funds. The fund invests in managers who employ a bottom-up, research-intensive, long/short equity style. The MLGW Pension Plan investment in this fund can be redeemed semi-annually on June 30 with a March 15 notice and December 31 with a September 15 notice. It is expected that the underlying assets of this fund will be liquidated over the next 2 years.
3. *Securitized asset fund.* This category is comprised of a fixed income fund that is managed by the securitized product specialists. The fund is an opportunistic, enhanced total return fixed income strategy that seeks to take advantage of the investment opportunity created by dislocated and mispriced assets in the residential mortgage backed sector. The MLGW Pension Plan investment in this category is generally not subject to redemption and it is expected that the underlying assets of this fund will be liquidated over the next 2 years.



4. *Life settlement funds.* This category includes four life settlement funds that invest in longevity contingent assets, including life settlements and a portfolio of individual, non-variable, life insurance policies. The MLGW Pension Plan investments in this category representing 40.8% can be redeemed quarterly with 90 days' notice; 18.5% can be redeemed quarterly with 120 days' notice. The remaining 40.7% are not subject to redemption and it is expected that the underlying assets of these funds will be liquidated over the next 5 to 8 years.
5. *Multi-asset fund.* This category is composed of a multi-asset fund that employs alternative strategies under a flexible investment mandate including both fund and direct investments. The MLGW Pension Plan investment in this category can be redeemed quarterly with 60 days' notice.
6. *Private debt fund.* This category contains a direct lending fund focused on providing senior-secured, floating rate loans to middle market borrowers. Its strategy is not centered on any specific industry, but it is focused on issuing USD-denominated loans to borrowers based in the United States. The MLGW Pension Plan investment in this fund is generally not subject to redemption and is normally returned through distributions as a result of liquidation. It is expected that the underlying assets of this fund will be liquidated over the next 8 years.
7. *Private equity funds.* This category includes thirteen private equity funds that invest in healthcare and technology, utilities, transportation and energy assets, high quality cash flowing companies, high-growth companies mainly through equity and equity-related instruments, and secondary investments across various sectors. Additionally, funds in this category invest in secondary venture capital opportunities through direct and fund investments. An emphasis will also be placed on middle market buyouts. 75.0% of MLGW Pension Plan investments in this category are not subject to redemption and are normally returned through distributions as a result of liquidation. It is expected that the underlying assets of these funds will be liquidated over the next 2 to 12 years. The remaining 25.0% can be redeemed monthly on the 15th after the 3rd month.
8. *Real estate funds.* This category includes eight real estate funds that invest in office, retail, industrial, and multi-family properties. Investments in this fund focus on building a portfolio that will withstand changes in the economy, capital market, and property market over the life of the Fund. The MLGW Pension Plan investments in this category representing 15.5% can be redeemed quarterly with 30 days' notice; 20.9% can be redeemed 2 years after notice; 31.7% can be redeemed quarterly with 91 days' notice. The remaining 31.9% are not subject to redemption and it is expected that the underlying assets of these funds will be liquidated over the next 1 to 8 years.

## 6. INCOME TAX STATUS

The MLGW Pension Plan is qualified under Section 401 (a) of the Internal Revenue Code (the "Code"); therefore, the related trust is exempt from taxation.



**REQUIRED SUPPLEMENTARY INFORMATION**



**RETIREMENT AND PENSION SYSTEM**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**Years Ended December 31, 2022 and 2021**

**Schedule of Changes in Retirement and Pension System's Net Pension Liability (Asset)**

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
<b>Total Pension Liability</b>										
Service cost	\$ 34,219,146	\$ 32,462,546	\$ 32,142,431	\$ 31,635,554	\$ 31,185,071	\$ 31,977,390	\$ 32,590,805	\$ 30,139,353	\$ 31,786,185	\$ 33,122,294
Interest	113,017,147	111,731,945	109,265,045	110,927,046	108,431,791	103,730,509	102,247,950	99,939,763	100,436,012	98,818,230
Change in benefit terms	-	4,759,848	-	-	-	-	-	-	-	-
Differences between expected and actual experience	54,247,340	6,176,600	9,102,230	(5,039,880)	3,725,938	4,908,452	(11,297,656)	2,274,807	(16,338,083)	(14,280,030)
Changes of assumptions	-	40,219,423	-	(174,213)	-	-	-	-	(22,111,951)	0
Benefit payments, including refunds of employee contributions	(125,632,519)	(121,780,614)	(111,826,594)	(107,730,602)	(113,315,849)	(104,919,467)	(102,627,833)	(100,528,352)	(100,249,274)	(91,930,874)
<b>Net change in Total Pension Liability</b>	<b>75,851,114</b>	<b>73,569,748</b>	<b>38,683,112</b>	<b>29,617,905</b>	<b>30,026,951</b>	<b>35,696,884</b>	<b>20,913,266</b>	<b>31,825,571</b>	<b>(6,477,111)</b>	<b>25,729,620</b>
Total Pension Liability - beginning	<u>1,643,127,789</u>	<u>1,569,558,041</u>	<u>1,530,874,929</u>	<u>1,501,257,024</u>	<u>1,471,230,073</u>	<u>1,435,533,189</u>	<u>1,414,619,923</u>	<u>1,382,794,352</u>	<u>1,389,271,463</u>	<u>1,363,541,843</u>
Total Pension Liability - ending	<u>\$1,718,978,903</u>	<u>\$ 1,643,127,789</u>	<u>\$1,569,558,041</u>	<u>\$ 1,530,874,929</u>	<u>\$ 1,501,257,024</u>	<u>\$1,471,230,073</u>	<u>\$1,435,533,189</u>	<u>\$1,414,619,923</u>	<u>\$ 1,382,794,352</u>	<u>\$ 1,389,271,463</u>
<b>Plan Fiduciary Net Position</b>										
Contributions - employer	\$ 20,941,090	\$ 24,199,396	\$ 24,504,032	\$ 21,813,428	\$ 22,174,419	\$ 22,389,805	\$ 21,390,060	\$ 21,390,060	\$ 26,804,170	\$ 30,706,286
Contributions - employee	14,657,153	14,215,567	13,827,902	13,462,380	13,216,689	12,958,804	12,513,273	12,309,664	11,729,085	12,000,254
Net investment income (loss)	(200,888,252)	252,596,887	192,437,830	237,313,578	(39,995,874)	216,498,126	108,008,264	15,231,323	98,931,237	185,706,622
Benefit payments, including refunds of employee contributions	(125,632,519)	(121,780,614)	(111,826,594)	(107,730,602)	(113,315,849)	(104,919,467)	(102,627,833)	(100,528,352)	(100,249,274)	(91,930,874)
Administrative expense	(886,387)	(867,502)	(778,506)	(931,403)	(871,948)	(859,736)	(729,599)	(758,946)	(714,266)	(657,209)
Other	-	-	-	-	-	-	-	-	-	-
<b>Net change in Plan Fiduciary Net Position</b>	<b>(291,808,915)</b>	<b>168,363,734</b>	<b>118,164,664</b>	<b>163,927,381</b>	<b>(118,792,563)</b>	<b>146,067,532</b>	<b>38,554,165</b>	<b>(52,356,251)</b>	<b>36,500,952</b>	<b>135,825,079</b>
Other adjustments	-	-	-	-	-	-	-	787,877 *	-	-
<b>Plan Fiduciary Net Position - beginning</b>	<u>1,843,900,492</u>	<u>1,675,536,758</u>	<u>1,557,372,094</u>	<u>1,393,444,713</u>	<u>1,512,237,276</u>	<u>1,366,169,744</u>	<u>1,327,615,579</u>	<u>1,379,183,953</u>	<u>1,342,683,001</u>	<u>1,206,857,922</u>
<b>Plan Fiduciary Net Position - ending</b>	<u>\$1,552,091,577</u>	<u>\$ 1,843,900,492</u>	<u>\$1,675,536,758</u>	<u>\$ 1,557,372,094</u>	<u>\$ 1,393,444,713</u>	<u>\$1,512,237,276</u>	<u>\$1,366,169,744</u>	<u>\$1,327,615,579</u>	<u>\$ 1,379,183,953</u>	<u>\$ 1,342,683,001</u>
<b>Net Pension Liability (Asset)- ending</b>	<b>\$ 166,887,326</b>	<b>\$ (200,772,703)</b>	<b>\$ (105,978,717)</b>	<b>\$ (26,497,165)</b>	<b>\$ 107,812,311</b>	<b>\$ (41,007,203)</b>	<b>\$ 69,363,445</b>	<b>\$ 87,004,344</b>	<b>\$ 3,610,399</b>	<b>\$ 46,588,462</b>
<b>Plan Fiduciary Net Position as a percentage of the Total Pension Liability</b>	90.29%	112.22%	106.75%	101.73%	92.82%	102.79%	95.17%	93.85%	99.74%	96.65%
<b>Covered - employee payroll</b>	\$ 184,709,533	\$ 175,790,422	\$ 173,424,888	\$ 170,945,709	\$ 169,605,389	\$ 167,220,851	\$ 161,925,757	\$ 160,640,772	\$ 152,367,924	\$ 154,759,208
<b>Plan Net Pension Liability (Asset) as percentage of covered payroll</b>	90.35%	-114.21%	-61.11%	-15.50%	63.57%	-24.52%	42.84%	54.16%	2.37%	30.10%

**Notes to Schedule:**

*Benefit changes* : Effective January 1, 2022, the System raised the minimum benefit outlined in Section 6.1(b) of the Plan Document from the greater of \$50 per year of service or \$500 per month to the greater of \$60 per year of service or \$600 per month.

*Assumptions* : The discount rate was lowered from 7.25% to 7.00% with the December 31, 2021 measurement.

\* The Actuary used preliminary data on net investment income (in 2014) and administrative expense (in 2013); however, the Pension Plan's annual report reflected late-reporting received from money managers. Therefore, the ending balance as of December 31, 2014 was understated by \$787,877. "Other Adjustments" represents the correction of the beginning balance at December 31, 2015.



**RETIREMENT AND PENSION SYSTEM**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**Years Ended December 31, 2022 and 2021**

**Schedule of Division's Contributions to the Retirement and Pension System**  
 Last 10 Fiscal Years

<b>Year Ended December 31</b>	<b>Actuarially Determined Contributions</b>	<b>Contributions in Relation to the Actuarially Determined Contributions</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered- Employee Payroll</b>	<b>Contributions as a Percentage of Covered Employee Payroll</b>
2022	\$ 20,941,090	\$ 20,941,090	\$ -	\$ 184,709,533	11.34%
2021	24,199,396	24,199,396	-	175,790,422	13.77%
2020	24,504,032	24,504,032	-	173,424,888	14.13%
2019	21,813,428	21,813,428	-	170,945,709	12.76%
2018	22,174,419	22,174,419	-	169,605,389	13.07%
2017	22,389,805	22,389,805	-	167,220,851	13.39%
2016	21,390,060	21,390,060	-	161,925,757	13.21%
2015	21,390,060	21,258,344	131,716 *	160,640,772	13.32%
2014	26,812,140	26,804,170	7,970	152,367,924	17.59%
2013	30,705,469	30,706,286	(817)	154,759,208	19.84%

*See next page*



**RETIREMENT AND PENSION SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION  
Years Ended December 31, 2022 and 2021**

**Notes to the Required Schedules**

*Methods and Assumptions used to establish "Actuarially Determined Contribution" Rates:*

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	
Valuation Date	January 1, 2021	January 1, 2020	January 1, 2019	January 1, 2018	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2016	January 1, 2015	January 1, 2014	
Measurement Date	December 31, 2022	December 31, 2021	December 31, 2020	December 31, 2019	December 31, 2018	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014	December 31, 2013	
Census data collected	December 31, 2022	December 31, 2021	December 31, 2020	December 31, 2019	December 31, 2018	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014	December 31, 2013	
Actuarial cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age Normal	Entry Age Normal Cost Method (2013-2015 presented)			
Amortization method	Level Dollar	Level Dollar	0.50%	1.00%	1.50%	2.50%	2.50%	2.00%	2.50%	Level percent of payroll (2013)	
			Level percent of payroll, using annual increases (2017-2020)/with amortization at pay (2014-2016)								
Amortization period of initial unfunded AAL	18-year closed	19-year closed	20-year closed	21-year closed	22-year closed	23-year closed	24-year closed	25-year closed	30-year closed, level percent-of-payroll (years 2013-2014 presented)		
Remaining amortization period	20 years	21 years	22 years	23 years	24 years	25 years	26 years	25 years	26 years	27 years	
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 30% of the market value.										
Investment rate of return	7.00%	7.25%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	
	net of pension plan investment expense, including inflation.										
Inflation rate	2.50%	2.50%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	3.25%	
Cost of living adjustments	for years 2021-2022 presented below:		for years 2014 - 2020 presented below:							for year 2013 presented below:	
	0.750% for age 56-58		0.83% for ages 56-58							0.98% for ages 56-58	
	1.500% for ages 59-61		1.65% for ages 59-61							1.95% for ages 59-61	
	1.875% for ages 62*		2.06% for ages 62 *							2.44% for ages 62*	
	* ages 62 and above, and all disabled participants										
Projected salary increases	0.00% to 8.50%	0.00% to 8.50%	0.00% to 8.50%	0.00% to 8.50%	0.00% to 6.75%	0.00% to 6.75%	0.00% to 6.75%	0.00% to 6.75%	0.00% to 6.75%	Inflation plus merit increases that vary by age and service	
	Inflation plus merit increases that vary by age and service (for all years presented)										

*See next page*



**RETIREMENT AND PENSION SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION  
Years Ended December 31, 2022 and 2021**

**Notes to the Required Schedules (*continued*)**

*Methods and Assumptions used to Determine Contribution Rates*

Mortality Rates (2021-2022)

<i>Pre-retirement</i>	PRI-2012 Employee Mortality Table
<i>Healthy annuitants</i>	120% of PRI-2012 Healthy Annuitant Mortality Table
<i>Disabled annuitants</i>	120% of PRI-2012 Disabled Retiree Mortality Table
<i>Beneficiaries</i>	120% of PRI-2012 Contingent Survivor Mortality Table

Mortality rates were based on the PRI-2012 Mortality Tables for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale SSA-2019

Mortality Rates (2019-2020)

<i>Pre-retirement</i>	PRI-2012 Employee Mortality Table
<i>Healthy annuitants</i>	120% of PRI-2012 Healthy Annuitant Mortality Table
<i>Disabled annuitants</i>	120% of PRI-2012 Disabled Retiree Mortality Table
<i>Beneficiaries</i>	120% of PRI-2012 Contingent Survivor Mortality Table

All mortality tables above projected generationally with Scale SSA-2019

Mortality Rates (2014-2018)

<i>Pre-retirement</i>	RP-2014 Employee Mortality Table
<i>Healthy annuitants</i>	138% of RP-2014 Healthy Annuitant Mortality Table
<i>Disabled annuitants</i>	138% of RP-2014 Disabled Retiree Mortality Table

All mortality tables above are projected generationally with a modified RPEC2014 projection table using a 15-year convergence period for cohort effects and a 10-year convergence period for age/period effects.

Mortality Rates (2013)

<i>Pre-retirement</i>	RP-2000 Combined Health Mortality Table with Blue Collar Adjustment for males and White
<i>Healthy annuitants</i>	RP-2000 Disabled Retiree Mortality Table

All above mortality tables were determined to contain a margin of 9% or provision appropriate to reasonably reflect future mortality improvement, based on a five-year review of mortality experience ended December 31, 2008. The reasonableness of the tables will again be reviewed with the next study, to be completed in 2014.

Other Information

2016	* The MLGW Pension Plan adopted GASB Statement No. 82 in 2016. To present the comparative statements for 2016 and 2015, the Division contributions for 2015 were restated to reflect the Executive contributions as a part of Member contributions.
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**RETIREMENT AND PENSION SYSTEM**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**Years Ended December 31, 2022 and 2021**

**Schedule of Investment Returns**  
 Last 10 Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Annual money-weighted rate of return, net of investment expense *	(11.22%)	15.40%	12.75%	17.70%	(2.61%)	16.51%	8.66%	1.34%	7.77%	16.00%

\*The annual money-weighted rate of return on the Pension plan investments is calculated as the internal rate of return on investments, net of investment expense. A money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The Pension plan investment expense should be measured on the accrual basis of accounting.

## **Independent Auditor's 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***

Board of Commissioners and Management  
Memphis Light, Gas and Water Division  
Retirement and Pension System  
Memphis, Tennessee

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 financial statements of the Memphis Light, Gas and Water Division Retirement and Pension System (the "Plan"), which comprise the statement of fiduciary net position as of December 31, 2022, 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 June 6, 2023. Our report disclosed that the statements of the Plan do not purport to present the financial position of the Light, Gas and Water Division of the City of Memphis or the City of Memphis as of December 31, 2022, and respective changes in their financial position or, where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

### ***Report on Internal Control over Financial Reporting***

In planning and performing our audit of the financial statements, we considered the Plan's internal control over financial reporting ("internal control") as a basis for designing 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 Plan's internal control. Accordingly, we do not express an opinion on the effectiveness of the Plan's internal control.

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 entity'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.

# FORVIS

Our consideration of internal control over financial reporting 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. 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.

### ***Report on Compliance and Other Matters***

As part of obtaining reasonable assurance about whether the Plan'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 financial statements. 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 Plan'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 Plan's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

**FORVIS, LLP**

**Memphis, Tennessee  
June 6, 2023**



**MEMPHIS LIGHT, GAS AND WATER DIVISION  
RETIREMENT AND PENSION SYSTEM**

Schedule of Prior Year Findings and Responses  
For the Year Ended December 31, 2022

There were no prior findings reported.