

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE  
OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Financial Statements

June 30, 2023 and 2022

(With Independent Auditors' Report Thereon)

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

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## Independent Auditors' Report

The Board of Trustees  
Massachusetts Water Resources Authority Irrevocable OPEB Trust  
Boston, Massachusetts

### Report on the Audits of the Financial Statements

#### *Opinion*

We have audited the accompanying financial statements of the Massachusetts Water Resources Authority Irrevocable OPEB Trust (the Trust), a fiduciary component unit of the Massachusetts Water Resources Authority, as of and for the years ended June 30, 2023 and 2022, and the related notes to the financial statements, as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Trust as of June 30, 2023 and 2022, and the change in 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). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Trust 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.

#### *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 Trust'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.

#### *Auditors' 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 auditors' 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 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 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 Trust'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 Trust'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 the management's discussion and analysis and schedules related to other postemployment benefits 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 auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



**CliftonLarsonAllen LLP**

Boston, Massachusetts  
September 11, 2023

# MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

## Management's Discussion and Analysis

June 30, 2023 and 2022

(Unaudited)

This section of the financial report presents our discussion and analysis of the Massachusetts Water Resources Authority (MWRA) Irrevocable Other Post-Employment Benefits (OPEB) Trust (the Trust) financial performance during the fiscal years ended June 30, 2023 and 2022. Please read it in conjunction with the Trust's financial statements, which immediately follow this section.

### Overview of the Financial Statements

The financial section of this annual report consists of four parts: management's discussion and analysis (this section), the financial statements and related notes to the financial statements, and required supplementary information.

The financial statements provide both long-term and short-term information about the Trust's overall financial status. The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data. The statements are followed by a section of required supplementary information that further explains and supports the information in the financial statements.

### Financial Analysis of the Trust

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

The Trust's total net position at June 30, 2023 was approximately \$72.4 million, a \$8.4 million increase from June 30, 2022. The change in net position is comprised of the actuarially determined employer contributions to the Trust of \$10 million and net investment income of \$3.7 million, less deductions for benefit payments of \$5.3 million. Actual cash contribution by the Authority to the Trust was \$4.8 million in fiscal year 2023.

The Trust's total net position at June 30, 2022 was approximately \$63.9 million, a \$2.1 million increase from June 30, 2021. The change in net position is comprised of the actuarially determined employer contributions to the Trust of \$9.5 million and net investment loss of \$2.5 million, less deductions for benefit payments of \$4.9 million. Actual cash contribution by the Authority to the Trust was \$4.7 million in fiscal year 2022.

### Other Post-Employment Benefits (OPEB) Irrevocable Trust

In April 2015, the Authority established the MWRA Irrevocable Other Post-Employment Benefits (OPEB) Trust. The Trust was established for the sole purpose of providing for the advance funding of future costs of retired employee health insurance and other benefits provided to retirees. It is intended that the Trust shall constitute a "Qualified OPEB Trust" according to the standards set forth in GASB Statement No. 43, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions* and the standards of GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. The OPEB Trust Agreement establishes a five-member Board of Trustees, made up of Authority senior managers, to control and manage the trust.

# **MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

## Management's Discussion and Analysis

June 30, 2023 and 2022

(Unaudited)

An initial deposit of \$10.8 million was made to the trust upon establishment of the trust in April 2015. The balance of the trust at June 30, 2023, 2022, and 2021 was \$72.4 million, \$63.9 million, and \$61.8 million, respectively.

### **Investments**

The Board of Trustees has prepared an Investment Policy to manage the growing portfolio of trust assets. For the periods ended June 30, 2023, 2022 and 2021, investment income/(loss) was \$3.7 million, \$(2.5) million and \$12 million, respectively.

### **Contacting the Trust's Financial Management**

This report is designed to provide all interested parties with a general overview of the Trust's finances. If you have questions about this report or need additional information, contact the Massachusetts Water Resources Authority, Finance Division, Deer Island 33 Tafts Avenue, Boston, MA 02128.

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Statements of Fiduciary Net Position

June 30, 2023 and 2022

(Dollars in 000s)

	<u>2023</u>	<u>2022</u>
<b>Assets</b>		
Cash and cash equivalents (note 3)	\$ 5,022	4,857
Investments	<u>67,356</u>	<u>59,072</u>
Total assets	<u><u>72,378</u></u>	<u><u>63,929</u></u>
<b>Liabilities</b>		
Accounts payable and accrued liabilities	<u>—</u>	<u>—</u>
Total liabilities	<u>—</u>	<u>—</u>
Net position restricted for OPEB	<u><u>\$ 72,378</u></u>	<u><u>63,929</u></u>

See accompanying notes to financial statements.

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Statements of Changes in Fiduciary Net Position

Years Ended June 30, 2023 and 2022

(Dollars in 000s)

	<u>2023</u>	<u>2022</u>
Additions:		
Employer contributions	\$ 10,061	9,529
Investment income:		
Net increase (decrease) in fair value of investments	3,925	(2,202)
Interest	84	15
Less investment expense	<u>(315)</u>	<u>(322)</u>
Net investment income (loss)	<u>3,694</u>	<u>(2,509)</u>
Total additions	<u>13,755</u>	<u>7,020</u>
Deductions:		
Benefits paid	<u>5,306</u>	<u>4,855</u>
Total deductions	<u>5,306</u>	<u>4,855</u>
Change in net position restricted for OPEB	8,449	2,165
Net position restricted for OPEB, beginning of the period	<u>63,929</u>	<u>61,764</u>
Net position restricted for OPEB, end of period	<u>\$ 72,378</u>	<u>63,929</u>

See accompanying notes to financial statements.



# MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST

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Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

## (1) Organization and Nature of Activities

The Massachusetts Water Resources Authority (MWRA) Irrevocable OPEB Trust (Trust) was established in April 2015 as a single-employer other post-employment benefits (OPEB) plan, for the purpose of accumulating and investing assets to fund certain post-retirement medical and life insurance for retirees of the Massachusetts Water Resources Authority (the Authority). The Trust is included as a fiduciary component unit in the Authority's financial statements because of its financial relationship with the Authority.

The Trust's Board of Trustees has fiduciary responsibility for the investment of monies and administration of the Trust pursuant to the Trust Agreement. The Board of Trustees is currently composed of five members including the following MWRA employees: Executive Director, Director of Finance, Treasurer, Budget Director and Director of Human Resources. The Trustees term of service shall continue for as long as each is willing to perform the duties and obligations of the position.

The Authority provides OPEB for retired employees through the Group Insurance Commission (GIC). The GIC is a quasi-independent state agency that administers an agent multi-employer defined benefit OPEB plan. The benefits, benefit levels, employee contributions and employer contributions are governed by the Authority and can be amended by the Authority. The Authority provides medical, prescription drug, mental health/substance abuse and life insurance to retirees and their covered dependents. All active employees who retire from the Authority and meet the eligibility criteria will receive these benefits.

## (2) Summary of Significant Accounting Policies

### (a) Basis of Presentation

The accompanying basic financial statements of the Trust are presented in conformity with the U.S. generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB).

The Trust's financial statements are presented in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This statement requires, among other things, additional disclosures and descriptive information about classes of plan members, plan investments and significant assumptions used to measure the total OPEB liability.

The Trust has also implemented GASB Statement No. 85, *Omnibus 2017*. This statement addressed various topics, including requirements related to presenting payroll measures in required supplementary information related to OPEB plans.

# MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

## **(b) Basis of Accounting**

The financial statements of the Trust are presented as a fiduciary fund type. The economic resources measurement focus and the accrual basis of accounting are used in the preparation of the financial statements.

Employer contributions to the plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits paid represents the gross up of amounts paid directly by the plan sponsor, the MWRA, for retiree OPEB costs and the implicit rate subsidy associated with such costs. The implicit rate subsidy is the inherent subsidy of retiree healthcare costs by active employee healthcare costs when healthcare premiums paid by both actives and retirees are the same. Benefits paid are recognized when due and payable in accordance with the terms of the employer/sponsor's plan.

## **(c) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## **(3) Cash and Cash Equivalents**

Cash and cash equivalents are checking, savings and money market accounts, or highly liquid investments with a maturity of three months or less.

The custodial credit risk for deposits is the risk that, in the event of a bank failure, the Trust's deposits may not be recovered. The deposits are covered by \$250 of FDIC insurance.

The bank deposits at June 30, 2023 and 2022 were \$5,022 and \$4,857, respectively. Of these amounts, \$4,772 and \$4,607 were exposed to custodial credit risks as uninsured and uncollateralized.

## **(4) Investments**

The Trustees have adopted a formal cash and investment policy. All funds will be invested with the Commonwealth of Massachusetts Pension Reserves Investment Trust (PRIT) fund through the State Retiree Benefits Trust Fund.

The investment in the PRIT fund is not subject to custodial or concentration risk and the Trust does not have policies to address such risks. The investment in PRIT is subject to foreign currency risk to the extent exchange rates will adversely affect the fair value of PRIT's international investments. The Trust does not have a policy to address this risk. The PRIT fund is unrated.

# MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST

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## Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

Investments are recorded at fair value. The Trust categorizes its fair value measurements with the fair value hierarchy established by generally accepted accounting principles. Investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Investments classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. The Trust has no securities classified in Level 3.

The Trust's investment in the PRIT fund is classified as Level 2.

### (5) Other Postemployment Benefits

#### (a) Plan Description

*Plan Administration.* The Massachusetts Water Resources Authority Irrevocable OPEB Trust (the Trust) administers the MWRA other postemployment benefits plan – a single-employer defined benefit plan that is used to provide postemployment benefits other than pensions (OPEB) for all permanent employees of the Authority.

Management of the Trust is vested in the Trust's Board of Trustees, which consists of five members, all of whom are current MWRA employees.

*Plan Membership.* At June 30, 2023, plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	1,072
Inactive plan members entitled to but not yet receiving benefits	37
Active plan members	<u>875</u>
Total	<u><u>1,984</u></u>

*Benefits Provided.* The Trust provides healthcare and life insurance benefits for retirees and their dependents. Benefits are provided through a third-party insurer, and the full cost of benefits is covered by the plan.

*Contributions.* The Authority's Board of Directors approves the annual employer contribution to the Trust. Plan members contribute between 10% and 20% of the premium cost and the Authority pays the balance which are paid directly to provider and not contributed to the trust.

#### (b) Investments

*Investment Policy.* The Trust's assets are invested with the Commonwealth of Massachusetts Pension Reserves Investment Trust (PRIT) fund. The Trust's Board of Trustees may vote to approve a different investment vehicle, at its discretion. The following was the PRIT fund's asset allocation at June 30, 2023 and 2022:

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Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

<b>Asset Class</b>	<b>June 30, 2023 Target Allocation (%)</b>	<b>June 30, 2022 Target Allocation (%)</b>
Domestic Equity	22%	22%
International Equity	17	16
Fixed Income	23	23
Private Equity	16	15
Real Estate	10	10
Other	14	14
Total	100 %	100 %

*Rate of Return.* For the years ended June 30, 2023 and 2022, the annual money-weighted rate of return on investments, net of investment expense, was 4.78% and -4.06%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

**(c) Net OPEB Liability of the Authority**

The components of the net OPEB liability of the Authority at June 30, 2023 and 2022, were as follows:

	<b>June 30, 2023</b>	<b>June 30, 2022</b>
Total OPEB liability	\$ 117,758	\$ 113,757
Plan fiduciary net position	(72,378)	(63,929)
Net OPEB liability	\$ 45,380	\$ 49,828
Plan fiduciary net position as a percentage of the total OPEB liability	61.46%	56.20%

# MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

## Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

*Actuarial Assumptions.* The total OPEB liability was determined by an actuarial valuation as of December 31, 2021, and update procedures were used to roll forward the total OPEB liability to June 30, 2023 and 2022. The following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	3.0	percent
Salary increases	5.75	percent, decreasing over 9 years to an ultimate level of 4.0 percent
Discount rate	6.75	percent, net of OPEB plan investment expense,
Healthcare cost trend rates (2023)	Non-Medicare Medical and Prescription Drug: 5.99%, then 7.06%, then 6.83%, then 6.59%, then 6.36%, then 6.00% decreasing by 0.25% for 6 years to an ultimate rate of 4.50%. Medicare Medical and Prescription Drug: 1.92% then 4.49%, then 4.57%, then 4.66%, then 4.75%, then an ultimate rate of 4.50%.	
Healthcare cost trend rates (2022)	Non-Medicare Medical and Prescription Drug: 6.52%, then 7.06%, then 6.83%, then 6.59%, then 6.36%, then 6.00% decreasing by 0.25% for 6 years to an ultimate rate of 4.50%. Medicare Medical and Prescription Drug: 3.00% then 4.49%, then 4.57%, then 4.66%, then 4.75%, then an ultimate rate of 4.50%.	

June 30, 2023 and 2022: Mortality rates were based on the Pub-2010 General Employee, Healthy Retiree and Contingent Survivor Headcount- Weighted Mortality Tables projected generationally using Scale MP-2021 for healthy retirees and Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Tables set forward one year projected generationally using Scale MP-2021 for the disabled.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of June 30, 2023 and 2022 (see discussion of the Trust's investment policy) are summarized in the following table:

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

<u>Asset Class</u>	<u>Long-Term Expected Rate of Return (%)</u>	
	<u>June 30, 2023</u>	<u>June 30, 2022</u>
Domestic Equity	6.59%	6.11%
International Equity	6.87 - 8.30	6.49 - 8.12
Fixed Income	1.53 - 3.54	0.38 - 2.48
Private Equity	9.49	9.93
Real Estate	3.44	3.72
Other	3.06 - 4.01	2.63 - 3.44

*Discount Rate.* The discount rate used to measure the total OPEB liability was 6.75% for June 30, 2023 and 2022. The projection of cash flows used to determine the discount rate assumed that Authority contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability. The discount rate used in the prior actuarial valuation was 7.0%.

*Sensitivity of the Net OPEB Liability to Changes in the Discount Rate.* The following presents the net OPEB liability of the Authority, as well as what the Authority's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

	<u>1% Decrease</u>	<u>Discount Rate</u>	<u>1% Increase</u>
	<u>(5.75%)</u>	<u>(6.75%)</u>	<u>(7.75%)</u>
Net OPEB Liability as of June 30, 2023	<u>\$ 59,703</u>	<u>\$ 45,380</u>	<u>\$ 33,373</u>
Net OPEB Liability as of June 30, 2022	<u>\$ 63,830</u>	<u>\$ 49,828</u>	<u>\$ 38,089</u>

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

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Notes to Financial Statements

June 30, 2023 and 2022

(Dollars in 000s)

*Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates.* The following presents the net OPEB liability of the Authority, as well as what the Authority's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	<b>1% Decrease (4.99% - 3.5%)</b>	<b>Base Rate (5.99% - 4.5%)</b>	<b>1% Increase (6.99% - 5.5%)</b>
Net OPEB Liability as of June 30, 2023	<u>\$ 30,640</u>	<u>\$ 45,380</u>	<u>\$ 63,435</u>
	<b>1% Decrease (5.52% - 3.5%)</b>	<b>Base Rate (6.52% - 4.5%)</b>	<b>1% Increase (7.52% - 5.5%)</b>
Net OPEB Liability as of June 30, 2022	<u>\$ 36,337</u>	<u>\$ 49,828</u>	<u>\$ 66,313</u>

# MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

## Required Supplementary Information – Schedule of Changes in Net OPEB Liability and Related Ratios (1)

June 30, 2023 and 2022

(Unaudited)

(Dollars in 000s)

	2023	2022	2021	2020	2019	2018	2017
<b>Total OPEB Liability</b>							
Total OPEB Liability - Beginning	\$ 113,757	\$ 136,805	\$ 132,819	\$ 161,064	\$ 150,978	\$ 154,254	\$ 146,143
Service Cost	2,742	3,771	3,739	4,604	4,463	2,820	2,705
Interest	7,688	9,673	9,372	11,425	10,705	10,821	10,253
Differences between expected and actual experience	-	3,613	-	(5,863)	-	(11,860)	-
Change of assumptions	(1,123)	(35,250)	(3,685)	(33,488)	-	-	-
Benefit payments	(5,306)	(4,855)	(5,440)	(4,923)	(5,082)	(5,057)	(4,847)
<b>Net Change in total OPEB liability</b>	<u>4,001</u>	<u>(23,048)</u>	<u>3,986</u>	<u>(28,245)</u>	<u>10,086</u>	<u>(3,276)</u>	<u>8,111</u>
<b>Total OPEB Liability - Ending</b>	<u>117,758</u>	<u>113,757</u>	<u>136,805</u>	<u>132,819</u>	<u>161,064</u>	<u>150,978</u>	<u>154,254</u>
<b>Plan Fiduciary Net Position</b>							
Plan fiduciary net position - beginning	63,929	61,764	43,729	37,072	29,774	22,782	16,123
Contributions - employer (claims + additional funding)	10,061	9,529	11,506	10,885	10,656	10,093	9,723
Net investment income (loss)	3,694	(2,509)	11,969	695	1,724	1,956	1,783
Benefit payments	(5,306)	(4,855)	(5,440)	(4,923)	(5,082)	(5,057)	(4,847)
<b>Net change in plan fiduciary net position</b>	<u>8,449</u>	<u>2,165</u>	<u>18,035</u>	<u>6,657</u>	<u>7,298</u>	<u>6,992</u>	<u>6,659</u>
<b>Plan fiduciary net position - ending</b>	<u>72,378</u>	<u>63,929</u>	<u>61,764</u>	<u>43,729</u>	<u>37,072</u>	<u>29,774</u>	<u>22,782</u>
<b>Net OPEB Liability</b>	<u>\$ 45,380</u>	<u>\$ 49,828</u>	<u>\$ 75,041</u>	<u>\$ 89,090</u>	<u>\$ 123,992</u>	<u>\$ 121,204</u>	<u>\$ 131,472</u>
<b>Plan fiduciary net position as a percentage of the total OPEB liability</b>	61.5%	56.2%	45.1%	32.9%	23.0%	19.7%	14.8%
<b>Covered-employee payroll</b>	\$ 113,765	\$ 111,297	\$ 106,879	\$ 103,778	\$ 98,238	\$ 94,816	\$ 86,475
<b>MWRA's net OPEB liability as a percentage of covered employee payroll</b>	39.9%	44.8%	70.2%	85.8%	126.2%	127.8%	152.0%

### Notes to Schedule

*Changes in Assumptions - June 30, 2023:* The trend assumptions were revised to account for known premium increases and changes in GIC plan offerings.

*Changes in Assumptions - June 30, 2022:* the generational mortality improvement scale was updated from Scale MP-2019 to Scale MP-2021. The per capita health costs and contributions were updated to reflect current premiums and the costs in the most recent Commonwealth OPEB valuation report. The trend assumptions were revised, per the most recent Commonwealth OPEB valuation report. The discount rate was lowered from 7.00% to 6.75%.

*Changes in Assumptions - June 30, 2021:* mortality assumptions and retirement rates were updated in order to be consistent with the companion pension plan.

*Changes in Assumptions - June 30, 2020:* the per capital health care costs were updated to reflect recent experience (reduced to 7% starting from 8%), trend assumptions were revised to better reflect future expectations, the excise tax on high cost health plans beginning in 2022 was repealed effective December 20, 2019 and removed from the valuation, spouse election percentage assumptions was lowered from 75% to 65% after analysis of past experience.

*Changes in Plan Provisions - June 30, 2023:* Effective July 1, 2022, Fallon plans are no longer offered by GIC; also, effective July 1, 2023, due to the merger of Tufts and Harvard Pilgrim, Tufts plans are no longer offered by GIC. The migration away from these plans has been accounted for through the medical trend assumption.

(1) Data is being accumulated annually to present 10 years of the reported information.

See accompanying independent auditors' report.



**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Required Supplementary Information – Schedule of Employer Contributions – Last 10 Fiscal Years

June 30, 2023 and 2022

(Unaudited)

(Dollars in 000s)

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>
Actuarially determined contribution	\$ 5,701	5,772	9,144	8,997	11,812
Contributions in relation to the actuarially determined contribution	10,061	9,529	11,506	10,885	10,656
Contribution deficiency (excess)	\$ <u>(4,360)</u>	<u>(3,757)</u>	<u>(2,362)</u>	<u>(1,888)</u>	<u>1,156</u>
Covered- Employee Payroll (1)	\$ 113,764	111,297	106,879	103,778	98,238
Contributions as a Percentage of Covered- Employee Payroll (1)	8.8%	8.6%	10.8%	10.5%	10.8%

**Notes to Schedule**

Methods and assumptions used to determine contributions rates:

Actuarial cost method	Entry Age Normal
Amortization method	30 years (closed)
Asset valuation method	Market value of assets
Inflation	3%
Healthcare cost trend rates	Non-Medicare Medical and Prescription Drug: 6.52%, then 7.06%, then 6.83%, then 6.59%, then 6.36%, then 6.00% decreasing by 0.25% for 6 years to an ultimate rate of 4.50%. Medicare Medical and Prescription Drug: 3.00% then 4.49%, then 4.57%, then 4.66%, then 4.75%, then an ultimate rate of 4.50%.
Discount rate	6.75%
Mortality	<i>Healthy:</i> Pub-2010 General Employee, Healthy Retiree and Contingent Survivor headcount-Weighted Mortality Tables projected generationally using Scale MP-2021 <i>Disabled:</i> Pub-2010 General Healthy Retiree Headcount-Weighted Mortality Tables set forward one year projected generationally using Scale MP-2021

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**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Required Supplementary Information – Schedule of Employer Contributions – Last 10 Fiscal Years

June 30, 2023 and 2022

(Unaudited)

(Dollars in 000s)

<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
11,400	10,948	14,996	14,564	15,621
<u>10,093</u>	<u>9,723</u>	<u>9,804</u>	<u>14,852</u>	<u>3,493</u>
<u>1,307</u>	<u>1,225</u>	<u>5,192</u>	<u>(288)</u>	<u>12,128</u>
94,816	86,475			
10.6%	11.2%			

**MASSACHUSETTS WATER RESOURCES AUTHORITY IRREVOCABLE OPEB TRUST**

(a Fiduciary Component Unit of the Massachusetts Water Resources Authority)

Required Supplementary Information – Schedule of Investment Returns (1)

June 30, 2023

(Unaudited)

(Dollars in 000s)

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Annual money-weighted rate of return, net of investment expense	5.78%	-4.06%	27.37%	1.88%	5.80%	8.58%	10.58%

(1) Data is being accumulated annually to present 10 years of the reported information

See accompanying independent auditors' report