# METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO OTHER POSTEMPLOYMENT BENEFITS PROGRAM 

PRELIMINARY GASB 75 DISCLOSURE INFORMATION FOR THE FISCAL YEAR ENDING DECEMBER 31, 2022

GASB 74/GASB 75 DISCLOSURE INFORMATION FOR THE FISCAL YEAR ENDING DECEMBER 31, 2021

April 11, 2022
To the Members of the Board of Commissioners
of the Metropolitan Water Reclamation District of Greater Chicago
Trustee and Fiduciary for the MWRD Retiree Health Care Trust
100 East Erie Street
Chicago, IL 60611
Re: Metropolitan Water Reclamation District - FYE December 31, 2021 GASB 74 Disclosures and Preliminary FYE December 31, 2022 GASB 75 Disclosures.

Dear Members of the Board:
Metropolitan Water Reclamation District of Chicago (MWRD) retained Foster \& Foster Consulting Actuaries Inc. to provide all necessary schedules required to comply with the Governmental Accounting Standards Board No. 74 ("GASB 74") and No. 75 ("GASB 75") for the Retiree Health Care Benefit Plan ("the Plan"). The GASB 74 and 75 results are applicable for MWRD's fiscal years ending December 31, 2021 and December 31, 2022, respectively. The schedules related to GASB 74 can be found in Appendix 1. The Crossover Test supporting the single discount rate calculation can be found in Appendix 2.

Actuarial calculations under GASB 74 and 75 are for purposes of fulfilling MWRD's financial accounting requirements. The calculations contained herein have been made on a basis consistent with our understanding of GASB 74 and 75.

The valuation has been conducted in accordance with all applicable federal laws and regulations, as well as generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board; specifically No. 6 for Measuring Retiree Group Benefit Obligations, No. 23 for Data Quality, No. 27 for Selection of Economic Assumptions for Measuring Pension Obligations, and No. 35 for Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations. GASB 74 and 75 requires that each significant assumption reflect the client's best estimate of the Plan's future experience solely with respect to that assumption. In our opinion, the assumptions and methods used in this valuation, as adopted by the District, represent reasonable expectations of anticipated plan experience under GASB 74 and 75.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

In conducting the valuation, we have relied on personnel and plan design information supplied by the District personnel, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. Because of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total OPEB liability is determined by an actuarial valuation of benefits every two years. In interim years, disclosures may be developed based on results of the most recent actuarial valuation. The total OPEB Liability and certain sensitivity information shown in this report are based on the most recent actuarial valuation performed as of December 31, 2021. The next actuarial valuation will be conducted as of December 31, 2023. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB 74 and 75.

This report shows detailed summaries of the financial results of the valuation and membership data used in preparing this valuation. The actuaries prepared supporting schedules that are to be included in the Actuarial and Statistical Sections of the MWRD Comprehensive Annual Financial Report. The actuary prepared the trend data schedules to be included in the Financial Sections of the MWRD Retiree Health Care Trust Comprehensive Annual Financial Report. The schedules include:

- OPEB Expense and Net OPEB Liability
- Supplements to Notes to the Financial Statements:
- Schedule of Changes in the Net OPEB Liability
- Schedule of Net OPEB Liability Sensitivities
- Schedule of Deferred Inflows of Resources and Deferred Outflows of Resources Related to OPEB
- Schedule of Changes in the Total OPEB Liability and Related Ratios
- Schedule of Contributions
- Schedule of Components of OPEB Expense and Related Amortization Schedules
- Reconciliation of Changes in Unfunded Liability
- Summary of Membership Data
- Schedule of Active Member Valuation Data

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. Due to the limited scope of this report an analysis of the potential range of such future measurements has not been performed.

This report was prepared for the internal use of Metropolitan Water Reclamation District in connection with our actuarial valuation of the Plan for the purpose noted above and not for reliance by any other person. Foster \& Foster Consulting Actuaries, Inc. disclaims any contractual or other responsibility or duty of care to others based upon the services or deliverables provided in connection with this report.

This report does not purport to comply with any other purposes not stated herein. Significantly different results from what is presented in this report may be needed for other purposes.

This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state, or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law.

Foster \& Foster does not provide legal, investment or accounting advice. Thus, the information in this report is not intended to supersede or supplant the advice or the interpretations of the District or its affiliated legal, investing or accounting partners.

The undersigned actuaries are familiar with the immediate and long-term aspects of OPEB valuations, are members of the Society of Actuaries and the American Academy of Actuaries and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" related to postretirement medical and life insurance plans. All the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, the individuals involved in this engagement have no relationship that may impair, or appear to impair, the objectivity of our work.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact either Jason or Colleen at 630 620-0200.

Respectfully submitted,
Foster \& Foster, Inc.

By:


By:


## Table of Contents

SECTION 1 - EXECUTIVE SUMMARY ..... 1
SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS ..... 4
SECTION 3 - GASB 75 DISCLOSURE SCHEDULES ..... 11
SECTION 4 - EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES ..... 15
SECTION 5 - RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY21 ..... 21
SECTION 6 - FUNDING PROGRESS-SOLVENCY TEST. ..... 23
SECTION 7 - PER CAPITA CLAIMS COSTS AND CONTRIBUTION AMOUNTS ..... 24
SECTION 8 - MEMBER STATISTICS ..... 25
STATISTICAL DATA ..... 25
AGE AND SERVICE DISTRIBUTION ..... 26
SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO/FROM ROLLS ..... 27
BREAKDOWN OF BENEFIT PLAN ENROLLMENT ..... 27
SECTION 9 - ACTUARIAL ASSUMPTIONS AND FUNDING METHODS ..... 28
SECTION 10 - SUMMARY OF PLAN PROVISIONS ..... 33
APPENDIX 1 - GASB 74 DISCLOSURES FOR PLAN YEAR 2021 ..... 34
APPENDIX 2 - GASB 74 \& 75 CROSSOVER TEST. ..... 44

## SECTION 1 - EXECUTIVE SUMMARY

The results presented in this report have been prepared in accordance with the Government Accounting Standards Board Statement 75 (GASB 75) for the Metropolitan Water Reclamation District's Other Postemployment Benefits (OPEB) Program, based on the actuarial valuation performed as of December 31, 2021. For purposes of this valuation, Medical and Prescription Drug Insurance OPEBs were taken into consideration.

The results of this valuation are based on a Measurement Date of December 31, 2021 and are applicable to the fiscal year ending December 31, 2022. The following table shows the key components of the District's OPEB valuation for fiscal year 2022 under GASB 75.

Measurement Date:
12/31/2021

Total OPEB Liability as of the Measurement Date
Plan Fiduciary Net Position as of the Measurement Date
District's Net OPEB Liability as of the Measurement Date
OPEB Expense/(Revenue) for the Fiscal Year ending December 31, 2022 \$

Covered Payroll
District's Net OPEB Liability as a percentage of Covered Payroll

Census Information as of December 31, 2021:
Active Participants 1,727
Retirees, Beneficiaries, and Disabled Members 1,959
Inactive Plan Members Entitled to But Not Yet Receiving Benefits 31
Covered Spouses
Total Participants

924
4,641

## District Funding Policy:

There is currently no legal requirement for the District to partially or fully fund the OPEB Plan. It is our understanding that the Board of Commissioners adopted an advance funding policy (last amended October 2, 2014) with a goal of fully funding the Plan over a period of 12 years. The funding amount is currently targeted at $\$ 5$ million in addition to the Actuarially Determined Contribution in each of the ten years 2017 through 2026, with no further advance funding contributions required after 2026. The Trust is expected to begin paying retiree claims and premiums beginning in 2027, with a goal of maintaining a funded level of $100 \%$ for all future years.

## Changes since the Prior Valuation

- The census data reflects changes in status for the twenty-four-month (24) period since December 31, 2019.
- The annual per capita claims costs have been updated. The premium rates have also been updated to use the rates effective for fiscal year 2022.
- Aging factors applied to health care costs have been updated to age- and gender-based factors developed in a study performed by Dale Yamamoto for the Society of Actuaries. Previously, claims costs were aged at a flat $4 \%$ before the age of $65,3 \%$ from ages 65 to $75,2 \%$ from ages to 75 to 85 , and $0 \%$ thereafter.
- Trend rates have been reset to use an initial rate of $7.50 \%$ in fiscal year 2022, grading down to $4.00 \%$ in fiscal year 2075 , in accordance with the Getzen model developed based on recent health care costs studies. Medicare Advantage (MAPD) costs are expected to increase at $3.5 \%$ per year.
- The percent of the population assumed to elect PPO coverage (as opposed to HMO coverage) in retirement was lowered from $78 \%$ to $76 \%$ based on actual retiree enrollment as of the valuation date.
- The participation rate was lowered from $90 \%$ to $80 \%$ based on experience of the plan over the last 5 years.


## SECTION 1 - Executive Summary

The balance of this report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees to discuss the report and any pending questions concerning its contents.

Respectfully submitted,
FOSTER \& FOSTER, INC.


By: Colleen M1.Atchison
Colleen M. Atchison, FSA, MAAA

# SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS <br> (For the Year Ended December 31, 2021) 

## SUMMARY OF SIGNIFICANT ACCOUNTING POLICES

## Postemployment Benefits Other Than Pensions (OPEB):

For purposes of measuring the net OPEB Liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the District's Retiree Health Care Plan (Plan) and additions to/ deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for money market investments and participating interest-earning investment contracts that have a maturity at the time of purchase of one year or less, which are reported at cost.

## GENERAL INFORMATION ABOUT THE OPEB PLAN

## Plan Description:

The Metropolitan Water Reclamation District of Chicago Retiree Health Care Benefit Plan (Plan) is a single employer defined benefit postemployment health care plan that covers eligible retired employees of the District. The Plan, which is administered by the District, allows employees who retire and meet retirement eligibility requirements under the District's retirement plan to continue health coverage as a participant in the District's plan.

Employees Covered by Benefit Terms. At December 31, 2021, the following employees were covered by the benefit terms:

Inactive Plan Members Currently Receiving Benefits
1,552
Beneficiaries of Deceased Plan Members Currently Receiving Benefits 407
Inactive Plan Members Entitled to But Not Yet Receiving Benefits
Active Plan Members

## Benefits Provided:

The benefits provided are the same as those provided for active employees. Spouses and dependents of eligible retirees are also eligible for medical coverage in accordance with the plan. All full-time employees of the District with at least ten actual years of service are eligible to receive postemployment benefits. Coverage for retirees and their eligible spouse is provided for life. Coverage for dependent children is provided in accordance with the eligibility provisions of the District-sponsored health plan. The Trust was established to advance fund benefits provided under the Plan.

## Eligibility for Insurance Coverage:

Employees must have at least ten actual years of service with the District, and coverage does not commence until the member starts receiving payments from the District's Retirement Fund. District Commissioners must have at least six years of service as a Commissioner of the District. Eligibility is based on the employee's hire date as follows: age 50 for those hired on or before June 13, 1997, age 55 for those hired between June 13, 1997 and January 1, 2011 and age 62 for those hired on or after January 1, 2011.

## Health Care Insurance:

Retirees who meet the age and service requirements above are eligible for medical and prescription drug benefits payable for life.

## Contributions:

The Metropolitan Water Reclamation District's Retiree Health Care Plan (Plan) is a single employer defined benefit postemployment health care plan that covers eligible retired employees of the District. The Plan, which is administered by the District, allows employees who retire and meet certain eligibility requirements to continue medical and prescription drug coverage as a participant in the District's plan. Spouses and dependents of eligible retirees are also eligible for medical and prescription drug coverage in accordance with the plan. All full-time employees of the District who meet the age and service requirements are eligible to receive postemployment health care benefits. Lifetime coverage for retirees and their eligible spouses is provided. Coverage for dependent children is also provided in accordance with the eligibility provisions of the Districtsponsored health plan. The Trust was established to advance fund benefits provided under the Plan.

Under the terms of the Plan, the Retired plan members and beneficiaries currently receiving benefits are required to contribute specified amounts monthly toward the cost of health insurance premiums.

The retiree contribution rates are set based on prior year claims incurred and become effective January 1st each year. The retiree contribution rate utilized is based on the contribution rate policy established by the Board of Commissioners. This policy calls for a $2.5 \%$ increase in the contribution rate on January 1st of each year until the contribution rate reaches $50.0 \%$ in 2021. The retiree contribution rate for 2021 and after is $50.0 \%$.

In future years, contributions are assumed to increase at the same rate as claims expenditures.

## Investment Policy:

The following was the Board's adopted asset allocation policy as of December 31, 2020. No such allocations were provided as of December 31, 2021.

| Asset Class |  | Target Allocation |
| :--- | :--- | :---: |
| Broad Fixed Income |  | $20.0 \%$ |
| Core Plus Fixed Income |  | $15.0 \%$ |
| Large Cap Core Equity |  | $17.5 \%$ |
| Large Cap Growth Equity |  | $7.5 \%$ |
| Mid Cap Core Equity |  | $10.0 \%$ |
| Small Cap Core Equity | $10.0 \%$ |  |
| Global Low Volatility | $5.0 \%$ |  |
| Non US Large Cap Core Equity |  | $15.0 \%$ |
| Total |  | $100 \%$ |

## Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Fund's Fiduciary Net Position.

## Rate of Return:

For the year ended December 31, 2021 the annual money-weighted rate of return on investments, net of investment expense, was 13.1 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts invested.

## Receivables:

If the OPEB plan reported receivables from long-term contracts with the District for contributions, the OPEB plan should disclose information required by paragraph 34c of this Statement.

## Allocated Insurance Contracts:

If the OPEB plan had allocated insurance contracts that are excluded from OPEB plan assets, the OPEB plan should disclose information required by paragraph 34d of this Statement.

## SECTION 2 - NOTES TO FINANCIAL STATEMENTS

(For the Year Ended December 31, 2022)

## NET OPEB LIABILITY

The measurement date is December 31, 2021.
The measurement period for the OPEB expense is January 1, 2021 to December 31, 2021.
The reporting period is January 1, 2022 through December 31, 2022.
The District's Net OPEB Liability was measured as of December 31, 2021.
Actuarial Assumptions:
The Net OPEB Liability was determined by an actuarial valuation as of December 31, 2021, using the following actuarial assumptions:

| Inflation Rate | $2.50 \%$ |
| :--- | ---: |
| Salary Increase Rate(s) | Varies by Service |
| Discount Rate | $6.50 \%$ |
| Initial Trend Rate | $7.50 \%$ |
| Ultimate Trend Rate | $4.00 \%$ |
| Years to Ultimate | 53 |
| Investment Rate of Return | $6.50 \%$ |

For all employees, mortality rates were based on the RP-2000 combined health mortality tables with fully generational mortality improvements using scale AA, with rates for female members increased by a factor of 1.04 .

## The Long-Term Expected Rate of Return:

The Long-Term Expected Rate of Return on OPEB Plan investments is determined using a building-block method in which best-estimate rates of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of December 31, 2020 (no such allocations or rates were provided as of December 31, 2021) are summarized in the following table:

| Asset Class | Target Allocation | Long Term Expected Real Rate of Return |
| :---: | :---: | :---: |
| Broad Fixed Income | 20.0\% | 1.70\% |
| Core Plus Fixed Income | 15.0\% | 2.10\% |
| Large Cap Core Equity | 17.5\% | 6.90\% |
| Large Cap Growth Equity | 7.5\% | 6.80\% |
| Mid Cap Core Equity | 10.0\% | 7.20\% |
| Small Cap Core Equity | 10.0\% | 7.70\% |
| Global Low Volatility | 5.0\% | 6.50\% |
| Non US Large Cap Core Equity | 15.0\% | 7.30\% |
| Total | 100\% |  |

The Long-Term Expected Rate of Return calculated using the method described above exceeds $6.50 \%$ (assuming $2.50 \%$ inflation).

## Discount Rate:

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member and District contributions will be made at the current contribution rate (i.e. funding policy). The expected rate of return on trust investments is $6.50 \%$. It is our understanding that the District has adopted a funding policy as of October 2, 2014 with the intention of fully funding the plan by 2026 and maintaining $100 \%$ funding thereafter. The District has shown that they are following the funding policy completely and will continue to do so. Therefore, the expected return on investments was used to discount projected benefit payments for all future benefit payments, and the single equivalent rate was $6.50 \%$.

## CHANGE IN NET OPEB LIABILITY

Reporting Period Ending December 31, 2021
Changes for the Year:
Service Cost
Interest
Differences Between Expected and Actual
Experience

| Increase (Decrease) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total OPEB Liability (a) |  | Plan Fiduciary <br> Net Position <br> (b) |  | Net OPEB Liability (a)-(b) |  |
| \$ | 318,117,960 | \$ | 270,205,465 | \$ | 47,912,495 |
|  | 5,104,413 |  | - |  | 5,104,413 |
|  | 20,700,322 |  | - |  | 20,700,322 |
|  | $(15,706,502)$ |  | - |  | $(15,706,502)$ |
|  | 19,094,366 |  | - |  | 19,094,366 |
|  | - |  | - |  | - |
|  | - |  | 5,000,000 |  | $(5,000,000)$ |
|  | - |  | 9,663,890 |  | $(9,663,890)$ |
|  | - |  | 35,999,320 |  | $(35,999,320)$ |
|  | $(9,663,890)$ |  | $(9,663,890)$ |  | - |
|  | - |  | $(41,639)$ |  | 41,639 |
|  | 19,528,709 |  | 40,957,681 |  | $(21,428,972)$ |
| \$ | 337,646,669 | \$ | 311,163,146 | \$ | 26,483,523 |

Differences between expected and actual experience. Reflects the impact of changes to the census data from the prior valuation to the valuation as of December 31, 2021.

Changes of Assumptions. Reflected under changes of assumptions are updated health care costs and premiums, updated health care cost aging rates, reset health care cost trend rates using the Getzen model, as well as updated participation rates (including the rate at which retirees are assumed to elect PPO coverage).

## SECTION 2 - Notes to Financial Statements

## Sensitivity of the Net OPEB Liability to changes in the Discount Rate:

The following presents the Net OPEB Liability of the District, as well as what the District's Net OPEB Liability would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current discount rate:

|  | Current Discount |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $1 \%$ Decrease |  |  | Rate |
| Net OPEB Liability (asset) | $5.50 \%$ | $6.50 \%$ | $1 \%$ Increase |  |
|  | $\$$ | $72,995,771$ | $\$$ | $26,483,523$ |

Sensitivity of the Total OPEB Liability to changes in the Healthcare Cost Trend Rates:
The following presents the Net OPEB Liability of the District, as well as what the District's Net OPEB Liability would be if it were calculated using healthcare cost trend rates that are one percentage-point lower or one percentage-point higher than the current healthcare cost trend rates:

|  | Healthcare Cost |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Net OPEB Liability (asset) | $1 \%$ Decrease | Trend Rates | $1 \%$ Increase |  |
|  | $3.00 \%-6.50 \%$ | $4.00 \%-7.50 \%$ | $5.00 \%-8.50 \%$ |  |
| $\$$ | $(14,998,776)$ | $\$$ | $26,483,523$ | $\$$ |

OPEB Plan Fiduciary Net Position:
Detailed information about the OPEB Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

## SECTION 3 - GASB 75 DISCLOSURE SCHEDULES

## FINAL OPEB EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO OPEB

(For the Year Ended December 31, 2021)
For the year ended December 31, 2021, the District will recognize OPEB Expense/(Revenue) of $\$(1,788,150)$.

On December 31, 2021, the District reported Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB from the following sources:

|  | Deferred Outflows of Resources |  | Deferred Inflows of Resources |  |
| :---: | :---: | :---: | :---: | :---: |
| Differences between Expected and Actual Experience | \$ | 4,870,425 | \$ | - |
| Changes of Assumptions |  | - |  | 26,636,035 |
| Net Difference Between Projected and Actual Earnings on OPEB Plan Investments |  | - |  | 23,103,366 |
| Employer Contributions Made Subsequent to the Measurement Date |  | 14,663,890 |  | - |
| Total | \$ | 19,534,315 | \$ | 49,739,401 |

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB will be recognized in OPEB Expense as follows:

| Year ended December 31: |  |  |
| :--- | :--- | ---: |
| 2022 | $\$$ | $(11,179,923)$ |
| 2023 | $\$$ | $(8,276,710)$ |
| 2024 | $\$$ | $(13,214,603)$ |
| 2025 | $\$$ | $(7,844,618)$ |
| 2026 | $\$$ | $(4,353,122)$ |
| Thereafter | $\$$ | - |

## Notes to Schedule:

Employer Contributions Made Subsequent to the Measurement Date are actual employer contributions for this fiscal year ending December 31, 2021.

## PRELIMINARY OPEB EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO OPEB

(For the Year Ended December 31, 2022)
For the year ended December 31, 2022, the District will recognize OPEB Expense/(Revenue) of $\$(6,229,035)$.

On December 31, 2022, the District reported Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB from the following sources:

|  | Deferred Outflows of Resources |  | Deferred Inflows of Resources |  |
| :---: | :---: | :---: | :---: | :---: |
| Differences between Expected and Actual Experience | \$ | 3,896,340 | \$ | 13,462,716 |
| Changes of Assumptions |  | 16,366,602 |  | 21,308,828 |
| Net Difference Between Projected and Actual Earnings on OPEB Plan Investments |  | - |  | 30,896,421 |
| Employer Contributions Made Subsequent to the Measurement Date |  | TBD |  | - |
| Total |  | TBD | \$ | 65,667,965 |

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB will be recognized in OPEB Expense as follows:

Year ended December 31:

| 2023 | $\$$ | $(11,447,693)$ |
| :--- | :--- | :---: |
| 2024 | $\$$ | $(16,385,586)$ |
| 2025 | $\$$ | $(11,015,601)$ |
| 2026 | $\$$ | $(7,524,105)$ |
| 2027 | $\$$ | 483,981 |
| Thereafter | $\$$ | 483,981 |

## SCHEDULE OF CHANGES IN THE DISTRICT'S TOTAL OPEB LIABILITY AND RELATED RATIOS

| Reporting Period Ending |  | 12/31/2022 |  | 12/31/2021 |  | 12/31/2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measurement Date |  | 12/31/2021 |  | 12/31/2020 |  | 12/31/2019 |
| Total OPEB Liability |  |  |  |  |  |  |
| Service Cost | \$ | 5,104,413 | \$ | 4,861,346 | \$ | 5,540,295 |
| Interest |  | 20,700,322 |  | 19,763,742 |  | 20,851,553 |
| Changes of benefit terms |  | - |  | - |  | - |
| Differences between Expected and Actual |  |  |  |  |  |  |
| Experience |  | $(15,706,502)$ |  |  |  | 6,818,596 |
| Changes of assumptions |  | 19,094,366 |  |  |  | $(37,290,450)$ |
| Benefit Payments |  | $(9,663,890)$ |  | $(11,229,934)$ |  | $(12,700,092)$ |
| Net Change in Total OPEB Liability |  | 19,528,709 |  | 13,395,154 |  | $(16,780,098)$ |
| Total OPEB Liability - Beginning |  | 318,117,960 |  | 304,722,806 |  | 321,502,904 |
| Total OPEB Liability - Ending (a) | \$ | 337,646,669 | \$ | 318,117,960 | \$ | 304,722,806 |
| Plan Fiduciary Net Position |  |  |  |  |  |  |
| Employer Trust Contribution | \$ | 5,000,000 | \$ | 5,000,000 | \$ | 5,000,000 |
| Pay-as-you-go Contributions |  | 9,663,890 |  | 11,229,934 |  | 12,700,092 |
| Net Investment Income |  | 35,999,320 |  | 32,732,090 |  | 39,251,295 |
| Benefit Payments |  | (9,663,890) |  | $(11,229,934)$ |  | $(12,700,092)$ |
| Administrative Expense |  | $(41,639)$ |  | $(41,295)$ |  | $(53,880)$ |
| Net Change in Plan Fiduciary Net Position |  | 40,957,681 |  | 37,690,795 |  | 44,197,415 |
| Plan Fiduciary Net Position - Beginning |  | 270,205,465 |  | 232,514,670 |  | 188,317,255 |
| Plan Fiduciary Net Position - Ending (b) | \$ | 311,163,146 | \$ | 270,205,465 | \$ | 232,514,670 |
| District's Net OPEB Liability - Ending (a) - (b) | \$ | 26,483,523 | \$ | 47,912,495 | \$ | 72,208,136 |
| Plan Fiduciary Net Position as a percentage of the |  |  |  |  |  |  |
| Total OPEB Liability |  | 92.16\% |  | 84.94\% |  | 76.30\% |
| Covered Payroll | \$ | 180,199,404 | \$ | 191,261,828 | \$ | 182,154,122 |
| District's Net OPEB Liability as a percentage of |  |  |  |  |  |  |
| Covered Payroll |  | 14.70\% |  | 25.05\% |  | 39.64\% |

## Notes to Schedule:

Differences between expected and actual experience. Reflects the impact of changes to the census data from the prior valuation to the valuation as of December 31, 2021.

Changes of Assumptions. Reflected under changes of assumptions are updated health care costs and premiums, updated health care cost aging rates, reset health care cost trend rates using the Getzen model, as well as updated participation rates (including the rate at which retirees are assumed to elect PPO coverage).

Discount Rate. The Single Discount Rate used to calculate the District's Net OPEB Liability has been $6.50 \%$ since implementation of GASB 75.

## SCHEDULE OF DISTRICT CONTRIBUTIONS

## Last 10 Fiscal Years

Actuarially Determined Contribution Contributions in relation to the Actuarially Determined Contributions Contribution Deficiency (Excess)

Covered Payroll

Contributions as a percentage of Covered Payroll

## Notes to Schedule:

For the fiscal year ending December 31, 2021, the Contributions in relation to the Actuarially Determined Contributions is final and was provided by the District.

Actuarially Determined Contribution rates shown above are calculated as of December 31 for the plan/fiscal year in which contributions are reported.
Contributions in relation to the Actuarially Determined Contributions include Pay-As-You-Go Benefit amounts plus an additional cash contribution to the trust.

Methods and assumptions used to determine contribution rates are the same as those found in Section 7 of this report.

The following information is not required to be disclosed under GASB 75 but is provided for informational purposes.

## FINAL COMPONENTS OF OPEB EXPENSE

(For the Year Ended December 31, 2021)

|  |  | Net OPEB <br> Liability |  | Deferred Inflows |  | Deferred Outflows |  | OPEB <br> Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning balance | \$ | 72,208,136 | \$ | 59,249,606 | \$ | 36,888,121 | \$ | - |
| Employer Contributions made after December 31, 2020 |  | - |  | - |  | 14,663,890 |  | - |
| Total OPEB Liability Factors: |  |  |  |  |  |  |  |  |
| Service Cost |  | 4,861,346 |  | - |  | - |  | 4,861,346 |
| Interest |  | 19,763,742 |  | - |  | - |  | 19,763,742 |
| Changes in Benefit Terms |  | - |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience with Regard to Economic or Demographic Assumptions |  | - |  | - |  | - |  | - |
| Current Year Amortization of Experience Difference |  | - |  | - |  | $(974,085)$ |  | 974,085 |
| Change in Assumptions About Future Economic or |  |  |  |  |  |  |  |  |
| Demographic Factors or Other Inputs |  | - |  | - |  | - |  | - |
| Current Year Amortization of Change in Assumptions |  |  |  | $(5,327,207)$ |  | - |  | $(5,327,207)$ |
| Benefit Payments |  | (11,229,934) |  | - |  | - |  | - |
| Net change | \$ | 13,395,154 | \$ | $(5,327,207)$ | \$ | 13,689,805 | \$ | 20,271,966 |
| Plan Fiduciary Net Position: |  |  |  |  |  |  |  |  |
| Contributions - Employer Trust | \$ | 5,000,000 | \$ | - | \$ | $(5,000,000)$ | \$ | - |
| Contributions - Pay-As-You-Go |  | 11,229,934 |  | - |  | $(11,229,934)$ |  | - |
| Projected Net Investment Income |  | 15,274,611 |  | - |  | - |  | $(15,274,611)$ |
| Difference Between Projected and Actual Earnings on |  |  |  |  |  |  |  |  |
| OPEB Plan Investments |  | 17,457,479 |  | 17,457,479 |  | - |  | - |
| Current Year Amortization |  | - |  | (11,764,692) |  | $(4,937,892)$ |  | $(6,826,800)$ |
| Benefit Payments |  | $(11,229,934)$ |  | - |  | - |  | - |
| Administrative Expenses |  | $(41,295)$ |  | - |  | - |  | 41,295 |
| Net change |  | 37,690,795 |  | 5,692,787 |  | $(21,167,826)$ |  | $(22,060,116)$ |
| Ending Balance | \$ | 47,912,495 | \$ | 59,615,186 | \$ | 29,410,100 | \$ | $(1,788,150)$ |

## PRELIMINARY COMPONENTS OF OPEB EXPENSE

(For the Year Ended December 31, 2022)

|  |  | Net OPEB <br> Liability |  | Deferred Inflows |  | Deferred Outflows |  | OPEB <br> Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning balance | \$ | 47,912,495 | \$ | 59,615,186 | \$ | 29,410,100 | \$ | - |
| Employer Contributions made after December 31, 2021 |  | - |  | - |  | TBD |  | - |
| Total OPEB Liability Factors: |  |  |  |  |  |  |  |  |
| Service Cost |  | 5,104,413 |  | - |  | - |  | 5,104,413 |
| Interest |  | 20,700,322 |  | - |  | - |  | 20,700,322 |
| Changes in Benefit Terms |  | - |  | - |  | - |  | - |
| Differences Between Expected and Actual Experience with Regard to Economic or Demographic Assumptions |  | $(15,706,502)$ |  | 15,706,502 |  | - |  | - |
| Current Year Amortization of Experience Difference |  | - |  | $(2,243,786)$ |  | $(974,085)$ |  | $(1,269,701)$ |
| Change in Assumptions About Future Economic or |  |  |  |  |  |  |  |  |
| Demographic Factors or Other Inputs |  | 19,094,366 |  | - |  | 19,094,366 |  | - |
| Current Year Amortization of Change in Assumptions |  |  |  | $(5,327,207)$ |  | $(2,727,764)$ |  | $(2,599,443)$ |
| Benefit Payments |  | (9,663,890) |  | - |  | - |  | - |
| Net change | \$ | 19,528,709 | \$ | 8,135,509 | \$ | 15,392,517 | \$ | 21,935,591 |
| Plan Fiduciary Net Position: |  |  |  |  |  |  |  |  |
| Contributions - Employer Trust | \$ | 5,000,000 | \$ | - | \$ | $(5,000,000)$ | \$ | - |
| Contributions - Pay-As-You-Go |  | 9,663,890 |  | - |  | $(9,663,890)$ |  | - |
| Projected Net Investment Income |  | 17,724,502 |  | - |  | - |  | $(17,724,502)$ |
| Difference Between Projected and Actual Earnings on |  |  |  |  |  |  |  |  |
| OPEB Plan Investments |  | 18,274,818 |  | 18,274,818 |  | - |  | - |
| Current Year Amortization |  | - |  | $(15,419,655)$ |  | $(4,937,892)$ |  | $(10,481,763)$ |
| Benefit Payments |  | $(9,663,890)$ |  | - |  | - |  | - |
| Administrative Expenses |  | $(41,639)$ |  | - |  | - |  | 41,639 |
| Net change |  | 40,957,681 |  | 2,855,163 |  | (19,601,782) |  | $(28,164,626)$ |
| Ending Balance | \$ | 26,483,523 | \$ | 70,605,858 |  | TBD | \$ | $(6,229,035)$ |

## Notes to Schedule:

Employer Contributions made after December 31, 2021 but made on or before December 31, 2022 need to be added.

## SECTION 4 - Expense Development and Amortization Schedules

## AMORTIZATION SCHEDULE - DUE TO RECOGNITION OF THE EFFECTS OF ASSUMPTION CHANGES

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Changes of Assumptions

| Measurement Year | Assumption Changes | Recognition Period (Years) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |  | 2030 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | \$ | 7 | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | - |
| 2018 | - | 7 | - | - | - | - | - | - | - |  | - |  | - |
| 2019 | $(37,290,450)$ | 7 | $(5,327,207)$ | $(5,327,207)$ | $(5,327,207)$ | $(5,327,207)$ | $(5,327,207)$ | - | - |  | - |  | - |
| 2020 | - | 7 | - | - | - | - | - | - | - |  | - |  | - |
| 2021 | 19,094,366 | 7 | 2,727,764 | 2,727,767 | 2,727,767 | 2,727,767 | 2,727,767 | 2,727,767 | 2,727,767 |  | - |  | - |
| Net Increase (D | ecrease) in OPEB Expen |  | \$ (2,599,443) | \$ $(2,599,440)$ | \$ (2,599,440) | \$ (2,599,440) | \$ (2,599,440) | \$ 2,727,767 | \$ 2,727,767 | \$ |  |  | - |

## SECTION 4 - Expense Development and Amortization Schedules

AMORTIZATION SCHEDULE - DUE TO DIFFERENCES BETWEEN EXPECTED AND ACTUAL EXPERIENCE

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience


# SECTION 4 - Expense Development and Amortization Schedules 

## AMORTIZATION SCHEDULE - DUE TO DIFFERENCES BETWEEN PROJECTED AND ACTUAL EARNINGS ON OPEB PLAN INVESTMENTS

Increase (Decrease) in OPEB Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on OPEB Plan Investments


# SECTION 5 - Reconciliation of Unfunded Actuarial Accrued Liability 

SECTION 5 - RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
(1) Unfunded Actuarial Accrued Liability as of December 31, 2020
(2) Expected Normal Cost as of December 31, 2020
(3) Expected Administrative Expenses for Fiscal 2021
(4) Interest on (1) and (2) and (3)
(5) Actual Sponsor Contributions to the System during the period of December 31, 2020 through December 31, 2021
(6) Interest on (5)
(7) Expected Unfunded Accrued Liability as of December 31, 2021 $(1)+(2)+(3)+(4)-(5)-(6)$
(8) Unfunded Accrued Liability as of December 31, 2021
\$
47,912,495
\$ 41,330,043
(9) Change in UAAL due to Actuarial (Gain)/Loss, (8)-(7)
$(14,846,520)$

Changes since the Prior Valuation \& Impact on Unfunded Actuarial Accrued Liability:

1. Changes in Census Data
\$ $(15,706,502)$
2. Claims Costs and Premiums significantly lower than expected $(30,756,117)$
3. Update to Yamamoto Aging

20,050,569
4. Update to Getzen Trend Rates with $3.5 \%$ Trend for Medicare

35,352,281
5. Updated enrollment assumption to align with actual retiree elections
$(152,885)$
6. Updated participation assumption
$(5,399,482)$
7. Investment Return (greater)/lower than expected

Total Change in UAAL
\$ $(14,846,520)$

1. The census data reflects changes in the census information for the twenty-four (24) month period since December 31, 2019.
2. Medical claims costs and premiums were both lower than expected. The impact of lower costs is magnified, as the liability is the net result of total costs, offset by retiree contributions. Additionally, the explicit subsidy is lower due to lower premiums, further decreasing the liability.
3. Updated Yamamoto Aging factors were implemented to better reflect how medical costs change with age. This assumption change results in an increase the Total OPEB Liability.
4. The updated trend rate assumption lengthens the number of years between intial and ultimate trend rates to 53 years based on the Getzen model. Costs are initially expected to increase at a rate of $7.5 \%$ in fiscal year 2022. The expected increase is lowered each year until an ultimate rate of $4 \%$ is reached in fiscal year 2075. Medicare premiums are assumed to increase by $3.5 \%$ annually.
5. $76 \%$ of retirees are assumed to elect PPO coverage based on current enrollment. Previously, $78 \%$ were assumed to elect PPO coverage.
6. The participation assumption was lowered from $90 \%$ to $80 \%$ based on experience over the last five years.

## SECTION 6 - FUNDING PROGRESS-SOLVENCY TEST

The funding progress exhibit below demonstrates the Trust's solvency over time. In a short-term solvency test, assets available for benefits are compared to:

1. Member contributions on deposit;
2. The actuarial accrued liability for future benefits payable to persons who have retired or terminated; and
3. The actuarial accrued liability for future projected benefits payable to current active members.

Generally, if a system has been using level contribution rate financing, the portion fully funded in each category listed above will increase over time.

| in \$000s | Actuarial Accrued Liability |  |  |  | Valuation | Portion of Accrued Liability Covered by Valuation Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation <br> Date | Member <br> Contributions | Terminated, Retirees, and Beneficiaries | Active <br> Members | Total |  | Member Contributions | Terminated, Retirees, and Beneficiaries | Active <br> Members |
| 12/31/2021 | 0 | 294,447 | 43,200 | 337,647 | 311,163 | 100\% | 100\% | 39\% |
| 12/31/2020 | 0 | 250,926 | 67,192 | 318,118 | 270,205 | 100\% | 100\% | 29\% |
| 12/31/2019 | 0 | 246,494 | 58,229 | 304,723 | 232,515 | 100\% | 94\% | 0\% |
| 12/31/2018 | 0 | 243,477 | 78,026 | 321,503 | 188,317 | 100\% | 77\% | 0\% |
| 12/31/2017 | 0 | 240,800 | 67,947 | 308,747 | 195,200 | 100\% | 81\% | 0\% |

SECTION 7 - PER CAPITA CLAIMS COSTS AND CONTRIBUTION AMOUNTS

## 2022 Per Capita Annual Claims Costs Per Participant

| Age | PPO Plans |  |  |  | HMO Plans |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolled in Medicare |  | Not Enrolled in Medicare |  | Enrolled in Medicare |  | Not Enrolled in Medicare |  |
|  | Male | Female | Male | Female | Male | Female | Male | Female |
| 40-44 | \$ 7,315 | \$ 11,020 | \$7,315 | \$ 11,020 | \$ 5,055 | \$7,864 | \$ 5,055 | \$7,864 |
| 45-49 | 9,236 | 12,137 | 9,236 | 12,137 | 6,421 | 8,637 | 6,421 | 8,637 |
| 50-54 | 12,163 | 14,230 | 12,163 | 14,230 | 8,442 | 10,160 | 8,442 | 10,160 |
| 55-59 | 15,815 | 16,472 | 15,815 | 16,472 | 11,201 | 11,745 | 11,201 | 11,745 |
| 60-64 | 20,284 | 19,523 | 20,284 | 19,523 | 14,675 | 13,981 | 14,675 | 13,981 |
| 65-69 | - | - | 25,528 | 24,106 | - | - | 18,989 | 17,277 |
| 70-74 | - | - | 31,220 | 29,931 | - | - | 24,146 | 21,485 |
| 75+ | - |  | 34,826 | 34,211 | - | - | 27,710 | 24,581 |

2022 Annual Premium Amounts Per Participant (Retiree Portion) ${ }^{1}$


[^0]
## SECTION 8 - MEMBER STATISTICS

## STATISTICAL DATA

|  | 12/31/2021 | 12/31/2019 |
| :---: | :---: | :---: |
| Number of Active Participants |  |  |
| Eligible for Retiree Health Benefits | 458 | 543 |
| Not Yet Eligible for Retiree Health benefits | 1,269 | 1,274 |
| Total | 1,727 | 1,817 |
| Average Current Age | 49.7 | 49.9 |
| Average Age at Employment | 37.0 | 37.0 |
| Average Past Service | 12.7 | 12.9 |
| Covered Payroll at the Valuation Date | \$ 180,199,404 | \$ 182,154,122 |
| Average Salary | 104,342 | 100,250 |
| Number of Inactives Receiving Benefits |  |  |
| Retirees and Disabled Members | 1,552 | 1,544 |
| Surviving Spouses | 407 | 434 |
| Dependent Spouses | 924 | 926 |
| Total | 2,883 | 2,904 |
| Average Current Age of Retirees, Beneficiaries and Disabled Members | 74.4 | 74.1 |
| Average Current Age of Dependent Spouses | 69.6 | 69.4 |
| Average Current Age of All Inactives in Receipt | 72.8 | 72.6 |
| Number of Terminated Vested | 31 | 37 |
| Average Age of Terminated Vested | 51.4 | 54.0 |

## AGE AND SERVICE DISTRIBUTION

TOTAL
PAST SERVICE

| AGE | 0 | $1-4$ | $5-9$ | $10-14$ | $15-19$ | $20-24$ | $25-29$ | $30-34$ | $35-39$ | $40+$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $<25$ | 3 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| $25-29$ | 13 | 33 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| $30-34$ | 19 | 61 | 33 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 119 |
| $35-39$ | 13 | 49 | 64 | 42 | 8 | 0 | 0 | 0 | 0 | 0 | 176 |
| $40-44$ | 15 | 64 | 57 | 49 | 41 | 11 | 0 | 0 | 0 | 0 | 237 |
| $45-49$ | 6 | 48 | 54 | 50 | 39 | 51 | 5 | 0 | 0 | 0 | 253 |
| $50-54$ | 12 | 27 | 52 | 41 | 35 | 82 | 23 | 8 | 0 | 0 | 280 |
| $55-59$ | 4 | 35 | 46 | 43 | 35 | 69 | 35 | 12 | 2 | 0 | 281 |
| $60-64$ | 2 | 23 | 35 | 37 | 34 | 46 | 14 | 13 | 2 | 1 | 207 |
| $65+$ | 1 | 7 | 14 | 14 | 16 | 37 | 14 | 4 | 4 | 3 | 114 |
| Total | 88 | 352 | 361 | 282 | 208 | 296 | 91 | 37 | 8 | 4 | 1,727 |

## SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO/FROM ROLLS

| Fiscal Year | Beginning of <br> Year <br> Balance | Number Added to Rolls | Number Removed from Rolls | End of Year Balance | Health Care <br> Annual <br> Benefit <br> Amounts | Average Annual Benefit | \% Change in Average Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | 1,850 | 150 | 127 | 1,873 | \$12,333,865 | \$6,585 | - |
| 2009 | 1,873 | 183 | 156 | 1,900 | \$14,591,543 | \$7,680 | 16.6\% |
| 2011 | 1,900 | 221 | 144 | 1,977 | \$15,020,374 | \$7,598 | -1.1\% |
| 2013 | 1,977 | 118 | 131 | 1,964 | \$13,834,831 | \$7,044 | -7.3\% |
| $2015{ }^{1}$ | 1,964 | 217 | 178 | 2,003 | \$13,316,713 | \$6,648 | -5.6\% |
| 2017 | 2,003 | 172 | 191 | 1,984 | \$13,430,657 | \$6,769 | 1.8\% |
| 2019 | 1,984 | 177 | 146 | 2,015 | \$12,700,092 | \$6,303 | -6.9\% |
| 2021 | 2,015 | 180 | 205 | 1,990 | \$9,663,890 | \$4,856 | -23.0\% |

## BREAKDOWN OF BENEFIT PLAN ENROLLMENT

 (RETIREES, BENEFICIARIES, COVERED SPOUSES AND TERMINATED VESTED)| Enrollee Group |  | PPO |  | HMO |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | Total |  |  |
| Benefit Recipient |  | 1,526 |  | 464 |  |

[^1]
## SECTION 9 - ACTUARIAL ASSUMPTIONS AND FUNDING METHODS

## ACTUARIAL ASSUMPTIONS

Valuation Date
GASB 75 Measurement Date
$\underline{\text { Fiscal Year End }}$
$\underline{\text { Mortality Rate }}$
$\underline{\text { End of Year Discount Rate }}$
Beginning of Year Discount Rate

## Retirement Rates

Retirement - Vested Participant

December 31, 2021.
December 31, 2021.
December 31, 2022.
RP-2000 Combined Healthy Mortality Table with Generational Mortality Improvements (Scale AA), with female rates adjusted by a factor of 1.04 .
$6.50 \%$ per year, based on investment rate of return, compounded annually, net of investment related expenses.
$6.50 \%$ per year, based on investment rate of return, compounded annually, net of investment related expenses.

See table below:

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

Assumed to retire at first eligibility for commencement of pension benefits.

## Termination Rates

Disability Rates

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

None assumed.
Salary Increase

Payroll Growth
Inflation
Administrative Expenses

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

$3.00 \%$ per year.
2.50\% per year.

No additional expenses added to Normal Cost.

Marital Status<br>Health Care Participation

Medicare Participation

Health Care Inflation
$100 \%$ assumed married, with male spouses 3 years older than female spouses.
$80 \%$ participation assumed (previously $90 \%$ ), with $76 \%$ electing spouse coverage.

Future retirees are assumed to elect medical plans in the same proportion as the 2019 elections for current enrollees. The current enrollments are $24 \%$ with HMO and $76 \%$ with PPO.
$100 \%$ of members are assumed to enroll in Medicare if eligible and hired on or after April 1, 1986. It is assumed that $93 \%$ of members will enroll in Medicare if hired before April 1, 1986.

Initial rate of $7.50 \%$ in fiscal 2022, grading down to the ultimate trend rate of $4.00 \%$ in fiscal 2075.

| Fiscal Year | Rate |
| :---: | :---: |
| 2022 | $7.50 \%$ |
| 2023 | $7.25 \%$ |
| 2024 | $7.00 \%$ |
| 2025 | $6.75 \%$ |
| 2026 | $6.50 \%$ |
| 2027 | $6.25 \%$ |
| 2028 | $6.00 \%$ |
| 2029 | $5.75 \%$ |
| 2030 | $5.50 \%$ |
| $2031-2052$ | $5.25 \%$ |
| $2053-2060$ | $5.00 \%$ |
| $2061-2067$ | $4.75 \%$ |
| $2068-2071$ | $4.50 \%$ |
| $2072-2074$ | $4.25 \%$ |
| $2075+$ | $4.00 \%$ |

The above rates reflect recent healthcare trend rate surveys, blended with the long-term rates from the Getzen model published by the Society of Actuaries.
3.50\% per year

Medical Aging (Morbidity) Factors

Health Claims
(Medicare and Non-Medicare)

Funding Method

Developed based on a study performed by Dale Yamamoto for the Society of Actuaries. Used to measure the annual increases in per capita claim costs for each age and relative cost by gender. See the SOA report titled "Health Care Costs From Birth to Death" for more details.

Developed using a $50 / 50$ blend of i) the 2021 medical and prescription claims and enrollment experience; and ii) 2022 age-adjusted premium rates.

Entry Age Cost Method (level percentage of pay).

## SECTION 9 - Actuarial Assumptions and Funding Methods

## DISCUSSION OF CENSUS DATA AND ASSUMPTIONS

1. Census Data - We received December 31, 2021 census data from District personnel. The data was substantially similar to data used in the previous year's valuation. No material modifications were made to the data.
2. Medical/Rx Cost and Enrollment Data - District personnel provided claims and enrollment experience for medical and prescription plan cost information for calendar year 2021.
3. Actuarial Assumptions and Methods -
a. Demographic Assumptions
i. Mortality rates are those used in the corresponding pension valuation developed during a 2018 Experience Study. Mortality rates are deemed reasonable and reflect mortality improvements. They are a best estimate given limited plan experience. We will continue to monitor the impact of mortality.
ii. Retirement rates, termination and disability rates are deemed reasonable and will continue to be monitored to ensure they capture plan experience.
iii. The participation rate was lowered from $90 \%$ to $80 \%$. The spousal coverage election percentage is the same as in the previous valuation. Rates are deemed reasonable and will continue to be monitored.
iv. Assumed enrollment was updated to reflect actual retiree enrollment as of December 31, 2021. 76\% of future retirees are assumed to elect PPO coverage. The remaining $24 \%$ are assumed to elect HMO coverage.
b. Other Assumptions
i. Health care inflation rates were updated to reflect recent healthcare trend rate surveys, blended with the long-term rates from the Getzen model published by the Society of Actuaries.
ii. The interest rate (i.e. investment return) remains at $6.50 \%$ at the request of the District and Board personnel. This rate is supported by the Crossover Test as shown in the Appendix.
c. Funding Method - The valuation results were calculated using the Entry Age cost method (level percentage of pay). This method is required under GASB 74/75.

## SECTION 10 - SUMMARY OF PLAN PROVISIONS

Credited Service

Eligibility for Insurance Coverage

Health Care Insurance

## Health Contributions

Retiree

District

Total completed years of employment with the District.

At least 10 years of service with the District. Coverage does not commence until the member starts receiving payments from the District's Retirement Fund. Earliest eligibility is based on the member's hire date as follows:

Hired on or before June 13, 1997: Age 50
Hired after June 13, 1997 and before January 1, 2011: Age 55
Hired on or after January 1, 2011: Age 62
Retirees who meet the age and service requirements above are eligible for medical and prescription drug benefits payable for life.

Retirees pay a portion of the premium each year based on the i) adjusted premium developed based on actual claims experience and ii) the contribution rate policy established by the Board of Commissioners. The policy calls for a $2.5 \%$ increase in the contribution rate on January $1^{\text {st }}$ or each year until the contribution rate reaches $50 \%$, projected to be in 2021. The contribution rate for 2021 is $50 \%$.

Remaining amount necessary for payment of claims.

# APPENDIX 1 - GASB 74 DISCLOSURES FOR PLAN YEAR 2021 <br> STATEMENT OF FIDUCIARY NET POSITION 

(For the Year Ended December 31, 2021)
ASSETS
MARKET VALUE

Cash and Short-Term Investments
Receivables:
Accrued Interest
Total Receivables 73,752
Investments:
Fixed Income Mutual Funds 86,355,436
Equity Mutual Funds 215,231,633
Balanced Mutual Funds
Money Market Funds
9,516,075

Total Investments
311,103,144
Total Assets
$311,176,896$

LIABILITIES
Payables:
Deposit Payable 13,750
Total Liabilities 13,750

NET POSITION RESTRICTED FOR POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

## STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

(For the Year Ended December 31, 2021)
ADDITIONS
Contributions
Employer Contributions ..... $14,663,890$
Total Contributions ..... 14,663,890
Investment Income:
Net Appreciation (Depreciation) in Fair Value of Investments ..... 30,605,436
Interest \& Dividends ..... 5,448,884
Less Investment Expense ..... $(55,000)$
Net Investment Income ..... 35,999,320
Total Additions ..... 50,663,210
DEDUCTIONS
Distributions to Members:
Retiree Health Care Benefits ..... 9,663,890
Total Distributions ..... 9,663,890
Administrative Expense ..... 41,639
Total Deductions ..... 9,705,529
Net Increase in Net Position ..... 40,957,681NET POSITION RESTRICTED FOR POSTEMPLOYMENTBENEFITS OTHER THAN PENSIONS
Beginning of the Year ..... 270,205,465
End of the Year ..... 311,163,146

## APPENDIX 1- GASB 74 Disclosure for Plan Year 2021

NOTES TO THE FINANCIAL STATEMENTS<br>(For the Year Ended December 31, 2021)

## GENERAL INFORMATION ABOUT THE OPEB PLAN

## Plan Description:

The Metropolitan Water Reclamation District of Chicago Retiree Health Care Benefit Plan (Plan) is a single employer defined benefit postemployment health care plan that covers eligible retired employees of the District. The Plan, which is administered by the District, allows employees who retire and meet retirement eligibility requirements under the District's retirement plan to continue health coverage as a participant in the District's plan.

Employees Covered by Benefit Terms. At December 31, 2021, the following employees were covered by the benefit terms:

Inactive Plan Members Currently Receiving Benefits
1,552
Beneficiaries of Deceased Plan Members Currently Receiving Benefits
Inactive Plan Members Entitled to But Not Yet Receiving Benefits
Active Plan Members

## Benefits Provided:

The benefits provided are the same as those provided for active employees. Spouses and dependents of eligible retirees are also eligible for medical coverage in accordance with the plan. All full-time employees of the District with at least ten actual years of service are eligible to receive postemployment benefits. Coverage for retirees and their eligible spouse is provided for life. Coverage for dependent children is provided in accordance with the eligibility provisions of the District-sponsored health plan. The Trust was established to advance fund benefits provided under the Plan.

## Eligibility for Insurance Coverage:

Employees must have at least ten actual years of service with the District, and coverage does not commence until the member starts receiving payments from the District's Retirement Fund. District Commissioners must have at least six years of service as a Commissioner of the District. Eligibility is based on the employee's hire date as follows: age 50 for those hired on or before June 13, 1997, age 55 for those hired between June 13, 1997 and January 1, 2011 and age 62 for those hired on or after January 1, 2011.

## Health Care Insurance:

Retirees who meet the age and service requirements above are eligible for medical and prescription drug benefits payable for life.

## APPENDIX 1- GASB 74 Disclosure for Plan Year 2021

## Contributions:

The Metropolitan Water Reclamation District's Retiree Health Care Plan (Plan) is a single employer defined benefit postemployment health care plan that covers eligible retired employees of the District. The Plan, which is administered by the District, allows employees who retire and meet certain eligibility requirements to continue medical and prescription drug coverage as a participant in the District's plan. Spouses and dependents of eligible retirees are also eligible for medical and prescription drug coverage in accordance with the plan. All full-time employees of the District who meet the age and service requirements are eligible to receive postemployment health care benefits. Lifetime coverage for retirees and their eligible spouses is provided. Coverage for dependent children is also provided in accordance with the eligibility provisions of the Districtsponsored health plan. The Trust was established to advance fund benefits provided under the Plan.

Under the terms of the Plan, the Retired plan members and beneficiaries currently receiving benefits are required to contribute specified amounts monthly toward the cost of health insurance premiums.

The retiree contribution rates are set based on prior year claims incurred and become effective January 1 st each year. The retiree contribution rate utilized is based on the contribution rate policy established by the Board of Commissioners. This policy calls for a $2.5 \%$ increase in the contribution rate on January 1st of each year until the contribution rate reaches $50 \%$ in 2021. The retiree contribution rate for 2021 and after is $50.0 \%$.

In future years, contributions are assumed to increase at the same rate as claims expenditures.

## Investment Policy:

The following was the Board's adopted asset allocation policy as of December 31, 2020. No such allocations were provided as of December 31, 2021.

| Asset Class |  | Target Allocation |
| :--- | :--- | :---: |
| Broad Fixed Income |  | $20.0 \%$ |
| Core Plus Fixed Income |  | $15.0 \%$ |
| Large Cap Core Equity |  | $17.5 \%$ |
| Large Cap Growth Equity | $7.5 \%$ |  |
| Mid Cap Core Equity | $10.0 \%$ |  |
| Small Cap Core Equity | $10.0 \%$ |  |
| Global Low Volatility | $5.0 \%$ |  |
| Non US Large Cap Core Equity |  | $15.0 \%$ |
| Total |  | $100 \%$ |

## Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Fund's Fiduciary Net Position.

## Rate of Return:

For the year ended December 31, 2021 the annual money-weighted rate of return on investments, net of investment expense, was 13.1 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts invested.

Receivables:
If the OPEB plan reported receivables from long-term contracts with the District for contributions, the OPEB plan should disclose information required by paragraph 34c of this Statement.

## Allocated Insurance Contracts:

If the OPEB plan had allocated insurance contracts that are excluded from OPEB plan assets, the OPEB plan should disclose information required by paragraph 34d of this Statement.

## APPENDIX 1- GASB 74 Disclosure for Plan Year 2021

## NET OPEB LIABILITY OF THE DISTRICT

The measurement date for GASB 74 reporting is December 31, 2021.
The reporting period is January 1, 2021 through December 31, 2021.
The District's Net OPEB Liability was measured as of December 31, 2021.
The Total OPEB Liability used to calculate the Net OPEB Liability was determined as of that date.

The components of the Net OPEB Liability of the District on December 31, 2021 were as follows:
Total OPEB Liability \$ 337,646,669
Plan Fiduciary Net Position 311,163,146
District's Net OPEB Liability
\$ 26,483,523

Plan Fiduciary Net Position as a percentage of the Total OPEB Liability
92.16\%

## Actuarial Assumptions:

The Total OPEB Liability was determined by an actuarial valuation as of December 31, 2021 using the following actuarial assumptions:

| Inflation Rate | $2.50 \%$ |
| :--- | ---: |
| Salary Increase Rate(s) | Varies by Service |
| Discount Rate | $6.50 \%$ |
| Initial Trend Rate | $7.50 \%$ |
| Ultimate Trend Rate | $4.00 \%$ |
| Years to Ultimate | 53 |
| Investment Rate of Return | $6.50 \%$ |

For all employees, mortality rates were based on the RP-2000 combined health mortality tables with fully generational mortality improvements using scale AA, with rates for female participants adjusted by a factor of 1.04 .

## APPENDIX 1- GASB 74 Disclosure for Plan Year 2021

## The Long-Term Expected Rate of Return:

The Long-Term Expected Rate of Return on OPEB Plan investments is determined using a building-block method in which best-estimate rates of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of December 31, 2020 (no such allocations or rates were provided as of December 31, 2021) are summarized in the following table:

| Asset Class | Target Allocation | Long Term Expected Real Rate of Return |
| :---: | :---: | :---: |
| Broad Fixed Income | 20.0\% | 1.70\% |
| Core Plus Fixed Income | 15.0\% | 2.10\% |
| Large Cap Core Equity | 17.5\% | 6.90\% |
| Large Cap Growth Equity | 7.5\% | 6.80\% |
| Mid Cap Core Equity | 10.0\% | 7.20\% |
| Small Cap Core Equity | 10.0\% | 7.70\% |
| Global Low Volatility | 5.0\% | 6.50\% |
| Non US Large Cap Core Equity | 15.0\% | 7.30\% |
| Total | 100\% |  |

The Long-Term Expected Rate of Return calculated using the method described above exceeds 6.50\% (assuming 2.50\% inflation).

## Discount Rate:

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member and District contributions will be made at the current contribution rate (i.e. funding policy). The expected rate of return on trust investments is $6.50 \%$. It is our understanding that the District has adopted a funding policy as of October 2, 2014 with the intention of fully funding the plan by 2026 and maintaining $100 \%$ funding thereafter. The District has shown that they are following the funding policy completely and will continue to do so. Therefore, the expected return on investments was used to discount projected benefit payments for all future benefit payments, and the single equivalent rate was $6.50 \%$.

## APPENDIX 1- GASB 74 Disclosure for Plan Year 2021

Sensitivity of the Net OPEB Liability to changes in the Discount Rate as of December 31, 2021:
The following presents the Net OPEB Liability of the District, as well as what the District's Net OPEB Liability would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current discount rate:

|  | Current Discount |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1\% Decrease | Rate | $1 \%$ Increase |  |
| Net OPEB Liability (asset) | $5.50 \%$ | $6.50 \%$ | $7.50 \%$ |  |
|  | $\$ 27,995,771$ | $\$$ | $26,483,523$ | $\$$ |
|  |  | $71,840,529)$ |  |  |

Sensitivity of the Net OPEB Liability to changes in the Healthcare Cost Trend Rates as of December 31, 2021:

The following presents the Net OPEB Liability of the District, as well as what the District's Net OPEB Liability would be if it were calculated using healthcare cost trend rates that are one percentage-point lower or one percentage-point higher than the current healthcare cost trend rates:

|  | Healthcare Cost |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1\% Decrease | Trend Rates | $1 \%$ Increase |  |  |
| Net OPEB Liability (asset) | $3.00 \%-6.50 \%$ | $4.00 \%-7.50 \%$ | $5.00 \%-8.50 \%$ |  |
|  | $\$(14,998,776)$ | $\$$ | $26,483,523$ | $\$$ |
|  |  | $76,491,044$ |  |  |

## OPEB Plan Fiduciary Net Position:

Detailed information about the OPEB Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

## APPENDIX 1- GASB 74 Disclosure for Plan Year 2021

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

| Reporting Period Ending |  | 12/31/2021 |  | 12/31/2020 |  | 12/31/2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total OPEB Liability |  |  |  |  |  |  |
| Service Cost | \$ | 5,104,413 | \$ | 4,861,346 | \$ | 5,540,295 |
| Interest |  | 20,700,322 |  | 19,763,742 |  | 20,851,553 |
| Changes of benefit terms |  | - |  | - |  | - |
| Differences between Expected and Actual |  |  |  |  |  |  |
| Experience |  | $(15,706,502)$ |  | - |  | 6,818,596 |
| Changes of assumptions |  | 19,094,366 |  | - |  | $(37,290,450)$ |
| Benefit Payments |  | $(9,663,890)$ |  | $(11,229,934)$ |  | $(12,700,092)$ |
| Net Change in Total OPEB Liability |  | 19,528,709 |  | 13,395,154 |  | $(16,780,098)$ |
| Total OPEB Liability - Beginning |  | 318,117,960 |  | 304,722,806 |  | 321,502,904 |
| Total OPEB Liability - Ending (a) | \$ | 337,646,669 | \$ | 318,117,960 | \$ | 304,722,806 |
| Plan Fiduciary Net Position |  |  |  |  |  |  |
| Employer Trust Contribution | \$ | 5,000,000 | \$ | 5,000,000 | \$ | 5,000,000 |
| Pay-as-you-go Contributions |  | 9,663,890 |  | 11,229,934 |  | 12,700,092 |
| Net Investment Income |  | 35,999,320 |  | 32,732,090 |  | 39,251,295 |
| Benefit Payments |  | $(9,663,890)$ |  | $(11,229,934)$ |  | $(12,700,092)$ |
| Administrative Expense |  | $(41,639)$ |  | $(41,295)$ |  | $(53,880)$ |
| Net Change in Plan Fiduciary Net Position |  | 40,957,681 |  | 37,690,795 |  | 44,197,415 |
| Plan Fiduciary Net Position - Beginning |  | 270,205,465 |  | 232,514,670 |  | 188,317,255 |
| Plan Fiduciary Net Position - Ending (b) | \$ | 311,163,146 | \$ | 270,205,465 | \$ | 232,514,670 |
| District's Net OPEB Liability - Ending (a) - (b) | \$ | 26,483,523 | \$ | 47,912,495 | \$ | 72,208,136 |
| Plan Fiduciary Net Position as a percentage of the |  |  |  |  |  |  |
| Total OPEB Liability |  | 92.16\% |  | 84.94\% |  | 76.30\% |
| Covered Payroll | \$ | 180,199,404 | \$ | 191,261,828 | \$ | 182,154,122 |
| District's Net OPEB Liability as a percentage of |  |  |  |  |  |  |
| Covered Payroll |  | 14.70\% |  | 25.05\% |  | 39.64\% |

## Notes to Schedule:

Discount Rate. The Single Discount Rate used to calculate the District's Net OPEB Liability has been $6.50 \%$ since implementation of GASB 75.

## APPENDIX 1 - GASB 74 Disclosures for Plan Year 2021

## SCHEDULE OF DISTRICT CONTRIBUTIONS <br> Last 10 Fiscal Years

Actuarially Determined Contribution
Contributions in relation to the Actuarially
Determined Contributions
Contribution Deficiency (Excess)
Covered Payroll

Contributions as a percentage of Covered Payrol

|  | 12/31/2021 |  | 12/31/2020 |  | 12/31/2019 |  | 12/31/2018 |  | 12/31/2017 |  | 12/31/2016 |  | 12/31/2015 |  | 12/31/2014 | 12/31/2013 |  | 12/31/2012 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6,298,571 |  | 8,640,607 |  | 9,585,874 |  | 11,506,823 |  | 11,506,823 |  | 12,471,893 |  | 12,471,893 |  | 13,211,937 |  | 13,211,937 |  | 27,263,684 |
|  | 14,663,890 |  | 16,229,934 |  | 17,700,092 |  | 17,570,679 |  | 18,430,657 |  | 19,916,860 |  | 18,316,713 |  | 33,716,523 |  | 33,834,831 |  | 35,426,215 |
| \$ | (8,365,319) | \$ | (7,589,327) | \$ | (8,114,218) | \$ | $(6,063,856)$ | \$ | (6,923,834) | \$ | (7,444,967) | \$ | (5,844,820) | \$ | $(20,504,586)$ | \$ | $(20,622,894)$ | \$ | $(8,162,531)$ |
| \$ | 180,199,404 | \$ | 191,261,828 | \$ | 182,154,122 | \$ | 192,661,666 | \$ | 184,807,353 | \$ | 183,120,020 | \$ | 176,756,776 | \$ | 169,909,275 | \$ | 164,005,092 | \$ | 158,995,000 |
|  | 8.14\% |  | 8.49\% |  | 9.72\% |  | 9.12\% |  | 9.97\% |  | 10.88\% |  | 10.36\% |  | 19.84\% |  | 20.63\% |  | 22.28\% |

## Notes to Schedule:

For the fiscal year ending December 31, 2021, the Contributions in relation to the Actuarially Determined Contributions is final and was provided by the District.

Actuarially Determined Contribution rates shown above are calculated as of December 31 for the plan/fiscal year in which contributions are reported.
Contributions in relation to the Actuarially Determined Contributions include Pay-As-You-Go Benefit amounts plus an additional cash contribution to the trust.

Methods and assumptions used to determine contribution rates are the same as those found in Section 7 of this report.

## APPENDIX 2 - GASB 74 \& 75 CROSSOVER TEST

## Metropolitan Water Reclimation District of Chicago Post Retirement Health Care Plan - GASB Statement 74\&75 Crossover Projection

50 Year Projection of the Health Care Plan's Fiduciary Net Position
Based on the December 31, 2021 Measurement Date. 6.50\% Asset Return

| Year | Projected Beginning Fiduciary Net Position | Projected Total Contributions | Projected Benefit Payments | Projected Administrative Expense | Projected Investment Earnings | Projected Ending Fiduciary Net Position |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2022 | 311,163,146 | 17,201,775 | 12,201,775 | 42,680 | 20,386,717 | 336,507,183 |
| 2023 | 336,507,183 | 18,320,923 | 13,320,923 | 42,729 | 22,034,078 | 363,498,533 |
| 2024 | 363,498,533 | 19,544,756 | 14,544,756 | 42,754 | 23,788,515 | 392,244,294 |
| 2025 | 392,244,294 | 20,678,978 | 15,678,978 | 42,783 | 25,656,989 | 422,858,500 |
| 2026 | 422,858,500 | 22,165,799 | 17,165,799 | 42,817 | 27,646,911 | 455,462,594 |
| 2027 | 455,462,594 | 23,649,866 | 18,649,866 | 42,836 | 29,766,176 | 490,185,934 |
| 2028 | 490,185,934 | 0 | 20,133,287 | 42,862 | 31,206,361 | 501,216,146 |
| 2029 | 501,216,146 | 0 | 21,709,973 | 42,873 | 31,872,082 | 511,335,382 |
| 2030 | 511,335,382 | 0 | 23,396,752 | 42,881 | 32,475,012 | 520,370,761 |
| 2031 | 520,370,761 | 0 | 24,885,569 | 42,896 | 33,013,924 | 528,456,220 |
| 2032 | 528,456,220 | 0 | 26,534,992 | 42,850 | 33,485,874 | 535,364,252 |
| 2033 | 535,364,252 | 0 | 28,156,762 | 42,787 | 33,882,191 | 541,046,894 |
| 2034 | 541,046,894 | 0 | 29,398,158 | 42,682 | 34,211,221 | 545,817,275 |
| 2035 | 545,817,275 | 0 | 30,943,051 | 42,519 | 34,471,092 | 549,302,797 |
| 2036 | 549,302,797 | 0 | 32,377,734 | 42,283 | 34,651,031 | 551,533,811 |
| 2037 | 551,533,811 | 0 | 33,649,530 | 42,021 | 34,754,722 | 552,596,982 |
| 2038 | 552,596,982 | 0 | 34,825,067 | 41,693 | 34,785,634 | 552,515,856 |
| 2039 | 552,515,856 | 0 | 35,556,583 | 41,322 | 34,756,599 | 551,674,550 |
| 2040 | 551,674,550 | 0 | 36,556,397 | 40,906 | 34,669,433 | 549,746,680 |
| 2041 | 549,746,680 | 0 | 37,208,512 | 40,444 | 34,522,943 | 547,020,666 |
| 2042 | 547,020,666 | 0 | 37,541,536 | 39,933 | 34,334,946 | 543,774,143 |
| 2043 | 543,774,143 | 0 | 38,111,406 | 39,387 | 34,105,418 | 539,728,768 |
| 2044 | 539,728,768 | 0 | 38,005,508 | 38,804 | 33,845,930 | 535,530,385 |
| 2045 | 535,530,385 | 0 | 37,742,241 | 38,168 | 33,581,612 | 531,331,588 |
| 2046 | 531,331,588 | 0 | 37,346,994 | 37,509 | 33,321,557 | 527,268,642 |
| 2047 | 527,268,642 | 0 | 36,647,323 | 36,810 | 33,080,227 | 523,664,737 |
| 2048 | 523,664,737 | 0 | 35,755,575 | 36,087 | 32,874,979 | 520,748,054 |
| 2049 | 520,748,054 | 0 | 34,587,591 | 35,306 | 32,723,379 | 518,848,537 |
| 2050 | 518,848,537 | 0 | 33,361,245 | 34,517 | 32,639,793 | 518,092,567 |
| 2051 | 518,092,567 | 0 | 31,707,784 | 33,687 | 32,644,419 | 518,995,515 |
| 2052 | 518,995,515 | 0 | 30,228,572 | 32,831 | 32,751,213 | 521,485,325 |
| 2053 | 521,485,325 | 0 | 28,706,280 | 31,952 | 32,962,554 | 525,709,647 |
| 2054 | 525,709,647 | 0 | 26,898,400 | 31,008 | 33,295,921 | 532,076,161 |
| 2055 | 532,076,161 | 0 | 24,865,214 | 30,100 | 33,775,853 | 540,956,699 |
| 2056 | 540,956,699 | 0 | 22,621,092 | 29,149 | 34,426,053 | 552,732,510 |
| 2057 | 552,732,510 | 0 | 20,868,515 | 28,197 | 35,248,470 | 567,084,268 |
| 2058 | 567,084,268 | 0 | 18,883,728 | 27,202 | 36,245,872 | 584,419,210 |


|  | Projected Beginning <br> Fiduciary Net <br> Position | Projected Total <br> Contributions | Projected Benefit <br> Payments | Projected <br> Administrative <br> Expense | Projected Investment <br> Earnings | Projected Ending <br> Fiduciary Net <br> Position |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| 2059 | $584,419,210$ | 0 | $17,219,733$ | 26,208 | $37,426,756$ | $604,600,024$ |
| 2060 | $604,600,024$ | 0 | $15,401,785$ | 25,242 | $38,797,623$ | $627,970,620$ |
| 2061 | $627,970,620$ | 0 | $13,687,332$ | 24,235 | $40,372,464$ | $654,631,518$ |
| 2062 | $654,631,518$ | 0 | $12,072,383$ | 23,211 | $42,157,942$ | $684,693,865$ |
| 2063 | $684,693,865$ | 0 | $10,544,239$ | 22,222 | $44,161,691$ | $718,289,096$ |
| 2064 | $718,289,096$ | 0 | $9,302,210$ | 21,195 | $46,385,781$ | $755,351,471$ |
| 2065 | $755,351,471$ | 0 | $7,976,881$ | 20,183 | $48,837,941$ | $796,192,348$ |
| 2066 | $796,192,348$ | 0 | $7,033,520$ | 19,188 | $51,523,290$ | $840,662,930$ |
| 2067 | $840,662,930$ | 0 | $6,265,996$ | 1,187 | $54,438,854$ | $888,817,601$ |
| 2068 | $888,817,601$ | 0 | $5,595,628$ | 17,124 | $57,590,730$ | $940,795,578$ |
| 2069 | $940,795,578$ | 0 | $4,953,504$ | 16,143 | $60,990,199$ | $996,816,130$ |
| 2070 | $996,816,130$ | 0 | $4,436,808$ | 15,133 | $64,648,360$ | $1,057,012,549$ |
| 2071 | $1,057,012,549$ | 0 | $3,985,446$ | 14,155 | $68,575,829$ | $1,121,588,777$ |
| 2072 | $1,121,588,777$ | 0 | $3,588,245$ | 13,118 | $72,786,226$ | $1,190,773,641$ |
| 2073 | $1,190,773,641$ | 0 | $3,233,073$ | 12,182 | $77,294,816$ | $1,264,823,202$ |
| 2074 | $1,264,823,202$ | 0 | $2,917,138$ | 11,225 | $82,118,336$ | $1,344,013,175$ |


[^0]:    ${ }^{1}$ The contributions shown above reflect the increase in the retiree contribution percentage from 2011 (at $25 \%$ ) to 2021 ( $50.0 \%$ ) at $2.5 \%$ per year.

[^1]:    ${ }^{1}$ Prior rolls adjusted to include vested terminated members excluded in the previous valuation.

