LOWER COLORADO RIVER AUTHORITY RETIREMENT PLAN AND TRUST

FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY INFORMATION AS OF AND FOR THE YEARS ENDED Dec. 31, 2022, and 2021

With Independent Auditors' Report

Lower Colorado River Authority
Retirement Plan and Trust

Financial Statements
As of and for the
Years Ended
Dec. 31, 2022, and 2021

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Independent Auditors' Report

To the LCRA Retirement Benefits Board of Trustees of
Lower Colorado River Authority Retirement Plan and Trust

Opinion

We have audited the accompanying financial statements of the Lower Colorado River Authority Retirement Plan and Trust (Plan), a fiduciary fund of the Lower Colorado River Authority, as of and for the years ended December 31, 2022 and 2021, 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 Plan as of December 31, 2022 and 2021, and the changes in the Plan's 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 Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As discussed in Note 2 to the financial statements, the Plan is presenting only the financial statements of the Plan and do not purport to, and do not, present fairly the financial position of the Lower Colorado River Authority, as of December 31, 2022 and 2021, and the changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

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

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 Plan's internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

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 required supplementary information, as listed in the table of contents be presented to supplement the financial statements. Such information is the responsibility of management and, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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.

Baker Tilly US, LLP

Austin, Texas
July 28, 2023

This section of the Lower Colorado River Authority (LCRA) Retirement Plan and Trust (Plan) financial report presents discussion and analysis of the Plan's financial performance for the years ended Dec. 31, 2022, and 2021. The reader should consider the information presented here in conjunction with the financial statements that follow.

Financial Statements Overview

This overview is intended to serve as an introduction to the Plan's financial statements, which comprise the following:

Management's Discussion and Analysis

This section provides an objective and easily readable analysis of financial activities based on currently known facts, decisions and conditions.

Statements of Fiduciary Net Position

The statements of fiduciary net position present the assets and liabilities of the Plan for the current and prior years. Investments are stated at net asset value. Unrealized appreciation and depreciation are reported in the statements of changes in fiduciary net position. Purchase and sale of investments are recorded on a trade-date basis and, accordingly, the related receivables and payables for any unsettled trades are recorded. Amounts reported may include management's estimates. Actual results could differ from those estimates.

Statements of Changes in Fiduciary Net Position

The statements of changes in fiduciary net position present information showing how the Plan's net position changed during the current period. Changes are reported when the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Revenues and expenses are reported in these statements for some items that will only result in cash flows in future periods.

Notes to Financial Statements

The notes to the financial statements include a summary of significant accounting policies; a brief description of the Plan; disclosures regarding liabilities, funding policies, investments and administrative expenses; and a disclosure of the net pension liability of the employer that are deemed necessary for a full understanding of the data provided in the Plan's financial statements.

Required Supplementary Information

Required supplementary information presents the schedule of changes in the employer's net pension liability and related ratios, the schedule of employer contributions, the schedule of investment returns, and the notes to required supplementary information. These are a part of the financial statements required by the Governmental Accounting Standards Board.

Collectively, this information presents the net position held in trust for pension benefits as of the end of each period and summarizes the changes in net position for the period.

Financial Highlights

Condensed Statements of Fiduciary Net Position
(Dollars in thousands)

	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Assets			
Cash and cash equivalents	$ 6,019	$ 6,000	$ 32,978
Investments	423,552	514,564	445,738
Receivables	822	1,078	2,383
Total assets	430,393	521,642	481,099
Liabilities			
Total liabilities	4,821	2,808	2,676
Net position restricted for pensions	$ 425,572	$ 518,834	$ 478,423

Net position restricted for pensions decreased by approximately $93 million, or 18.0%, as of Dec. 31, 2022. The primary driver for the decrease was unfavorable market performance compared with the year ended Dec. 31, 2021. Net position restricted for pensions increased by approximately $40 million, or 8.4%, as of Dec. 31, 2021. The primary driver for the increase was stronger market performance in 2021 compared with the year ended Dec. 31, 2020.

Total investments were $424 million as of Dec. 31, 2022, a decrease of $91 million, or 17.7%, for the year ended Dec. 31, 2022. The primary driver for the decrease was unfavorable market conditions in 2022 compared with values as of Dec. 31, 2021. Total investments were $515 million as of Dec. 31, 2021, an increase of $69 million, or 15.4%, for the year ended Dec. 31, 2021. The primary driver for the increase was stronger market conditions in 2021 compared with values as of Dec. 31, 2020. Investments exclude approximately $28 million in cash and cash equivalents resulting from rebalancing the portfolio and understates the investment performance by 6.9%. The cash and cash equivalent amounts associated with the portfolio rebalancing were invested in plan investment funds during January 2021.

Liabilities increased by $2 million, or 71.7%, from Dec. 31, 2021, to Dec. 31, 2022, due to a higher amount of accrued lump sum payouts. Liabilities increased by $0.1 million, or 4.9%, from Dec. 31, 2020, to Dec. 31, 2021, due to a higher amount of accrued lump sum payouts.

Condensed Statements of Changes in Fiduciary Net Position
(Dollars in thousands)

	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Additions			
Contributions	$ 28,191	$ 27,500	$ 31,101
Investment income (loss)	(71,303)	60,781	63,896
Less investment expenses	1,837	1,817	1,331
Net investment income (loss)	(73,140)	58,964	62,565
Total additions (deductions)	(44,949)	86,464	93,666
Deductions			
Benefits paid to participants	48,113	45,801	44,812
General, administrative and other expenses	200	252	309
Total deductions	48,313	46,053	45,121
Net increase (decrease)	(93,262)	40,411	48,545
Fiduciary net position, beginning of period	518,834	478,423	429,878
Fiduciary net position, end of period	$ 425,572	$ 518,834	$ 478,423

Employer and employee contributions increased by approximately $1 million, or 2.5%, for the year ended Dec. 31, 2022. Employer and employee contributions decreased by approximately $4 million, or 11.6%, for the year ended Dec. 31, 2021. The employer contribution amount was higher than the actuarial determined contribution in 2022, 2021 and 2020; however, the additional contribution was a lesser amount in 2022 and 2021 compared with 2020.

Net investment income decreased by approximately $132 million, or 224.0%, for the year ended Dec. 31, 2022, compared with Dec. 31, 2021. The primary driver for the decrease was an unfavorable market performance. Net investment income (loss) decreased by approximately $4 million, or 5.8%, for the year ended Dec. 31, 2021, compared with Dec. 31, 2020. The primary driver for the decrease was an unfavorable market performance.

Investment expenses for the year ended Dec. 31, 2022, were relatively unchanged compared with the year ended Dec. 31, 2021. Investment expenses increased $0.5 million for the year ended Dec. 31, 2021, compared with Dec. 31, 2020.

The amount of benefits paid to Plan participants increased by approximately $2 million, or 5.0%, for the year ended Dec. 31, 2022. The increase was due to a higher dollar amount of lump-sum payments and annuity payments made in 2022 compared with 2021. The amount of benefits paid to Plan participants increased by approximately $1 million, or 2.2%, for the year ended Dec. 31, 2021. The increase was due to a higher dollar amount of lump-sum payments and annuity payments made in 2021 compared with 2020.

The total rate of return for the Plan's investment portfolio for the year ended Dec. 31, 2022, was (14.4)% (net of fees), compared with 12.6% (net of fees) for the year ended Dec. 31, 2021. The actuarial assumed rate of return was 7.0% for both 2022 and 2021.

The Plan's funding objective was to meet long-term benefit obligations through contributions and returns on invested funds. As of Dec. 31, 2022, the date of the most recent actuarial valuation, the Plan's funding ratio of actuarial assets as a percentage of current actuarial liabilities was 66.4%, which was less than the 81.2% as of Dec. 31, 2021.

Request for Information

This financial report is designed to provide a general overview of the finances of the LCRA Retirement Plan and Trust for all parties with an interest. Questions about this report or requests for additional financial information should be addressed to Pension Administrator, LCRA Retirement Plan and Trust, 3700 Lake Austin Blvd., Austin, TX 78703.

STATEMENTS OF FIDUCIARY NET POSITION

(Dollars in thousands)

	Dec. 31, 2022	Dec. 31, 2021
Assets		
Cash and cash equivalents	$ 6,019	$ 6,000
Investments	423,552	514,564
Receivables	822	1,078
Total assets	430,393	521,642
Liabilities		
Accrued investment expenses	314	314
Accrued administrative expenses	7	—
Benefits payable	4,500	2,494
Total liabilities	4,821	2,808
Net position restricted for pensions	$ 425,572	$ 518,834

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

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

(Dollars in thousands)

	Years Ended Dec. 31, 2022	Years Ended Dec. 31, 2021
Additions		
Net appreciation (depreciation) on investments	$ (80,353)	$ 50,812
Interest	49	-
Dividends	8,994	9,969
Settlements, commissions and other income	7	-
Total investment income (loss)	(71,303)	60,781
Less investment expenses	1,837	1,817
Net investment income (loss)	(73,140)	58,964
Employer contributions	27,759	27,500
Employee contributions	432	-
Total contributions	28,191	27,500
Total additions (deductions)	(44,949)	86,464
Deductions		
Benefits paid to participants	48,113	45,801
General, administrative and other expenses	200	252
Total deductions	48,313	46,053
Net increase (decrease) in net position	(93,262)	40,411
Net position restricted for pensions, beginning of period	518,834	478,423
Net position restricted for pensions, end of period	$ 425,572	$ 518,834

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

1. Pension Plan Description

Plan Description: The LCRA Retirement Benefits Board of Trustees (Board) is the administrator of the LCRA Retirement Plan and Trust (Plan), a single-employer defined benefit pension plan sponsored by LCRA. The Board has seven members: two LCRA Board of Directors members, two employees from upper management positions and three employees from positions other than upper management. The LCRA Board of Directors has sole authority to amend the Plan.

Benefits Provided: LCRA employees hired before May 1, 2012, are covered by the Plan. The Plan provides retirement, death and disability benefits. The Plan was amended to provide cash balance benefits for all employees employed or reemployed on or after Jan. 1, 2002, who become Plan participants. Active employees as of Dec. 31, 2001, were given the opportunity through the LCRA Retirement Choice Program to elect to become participants under cash balance provisions (Cash Balance Participants) or to remain under the pension provisions (Pension Participants).

The Pension Participants' retirement benefit for each year of service is 1.75% of the highest five-year average monthly compensation plus 0.4% of the portion of the highest five-year average monthly compensation that exceeds the monthly integration level. The monthly integration level is a sliding scale based upon the calendar year in which termination of employment occurs, with the level increasing to its ultimate amount of $3,300 for those terminating employment in 2020 and later. Employees become 100% vested in their retirement benefits after the required number of years. Pension Participants may retire with unreduced accrued benefits at age 65 with five years of employment or when the total of age and years of service equals 80 (Rule of 80). The monthly benefit at retirement for Pension Participants is payable in a 10-year certain and life thereafter form of annuity. There are no automatic or guaranteed post-retirement cost-of-living adjustments, but ad hoc retiree benefit increases may be granted by amendment. Pension Participants are not required to contribute to the Plan, although the Plan retains employee contributions and associated liabilities from years prior to April 1, 1984, when the Plan required employee contributions. LCRA pays early retirement disability benefits to participants if the participant becomes disabled prior to reaching their normal retirement date under the Plan. LCRA pays death benefits to the beneficiaries of Plan participants based on the Plan participant's elections made.

All employees initially employed or reemployed by LCRA on or after Jan. 1, 2002, and before May 1, 2012, who complete three consecutive months of credited service are eligible to participate in the Plan as a Cash Balance Participant as of the monthly anniversary date coinciding with or first following the completion of three consecutive months of credited service. The cash balance account consists of a beginning balance, monthly contribution credits and monthly interest credits. The beginning balance should be zero unless the Cash Balance Participant was employed prior to Jan. 1, 2002, in which case the beginning balance should be the Plan's lump-sum value, if any, as of Dec. 31, 2001, or, if greater, the transition value determined as of Dec. 31, 2001. The transition value was based on credited service and compensation averaged over 60 months of employment, determined as of Dec. 31, 2001. Contribution credits are equal to 4% of compensation paid during a month.

Interest credits are added at the end of each month to the cash balance account based on an annual effective interest rate of 7%.

Funding Policy: The LCRA Board of Directors amended the Plan to close it to new entrants effective May 1, 2012. Given the closing of the Plan to new entrants, the Plan's actuaries recommended a new funding policy beginning with the fiscal year ended March 31, 2013. The LCRA Board of Directors has sole authority to determine the employer's contribution, taking into consideration the actuaries' recommended contribution.

In order for a public employee retirement plan to have an adequate contribution arrangement, contributions must be sufficient to pay the Plan's normal cost and to amortize the Plan's total net pension liability (NPL) over a reasonable period of time. Based on the professional judgment of the Plan's actuaries and the actuarial assumptions and methods used in the April 1, 2012, valuation, the actuaries recommended the amortization period for the Plan be 25 years beginning April 1, 2012. Given the closed group of employee participants, the actuaries believed the amortization of the NPL should switch from a level percent of participant payroll contributions to level dollar contributions, and the Board approved the recommendation.

Based on this funding policy, the actuaries' recommended contributions for the years ended Dec. 31, 2022, and Dec. 31, 2021, were $24 million and $25 million, respectively, to be paid biweekly during the Plan years. This amount will fund the Plan's normal cost for the year and will amortize the NPL as a level dollar amount over the remaining 18 years for 2022 and 19 years for 2021. There are no required contributions by the participants; however, some employee contributions are made to purchase optional credited service. The actual employer contributions for both years ended Dec. 31, 2022, and Dec. 31, 2021, were approximately $28 million.

The funding policy also depends on the total return of the Plan's assets, which varies from year to year. Investment policy decisions are established and maintained by the Board. The Board employs and selects investment managers with the advice of its investment consultant, who is completely independent of the investment managers. The money-weighted rate of return on pension plan investments was (14.4)% for the year ended Dec. 31, 2022, and 12.6% for the year ended Dec. 31, 2021. This measurement of the investment performance is net of investment-related expenses, reflecting the effect of the contributions received and the benefits paid during the period.

Employees Covered by the Plan:

Category	Dec. 31, 2022	Dec. 31, 2021
Retirees and beneficiaries currently receiving benefits	1,025	996
Inactive employees entitled to but not yet receiving benefits	66	71
Active employees	783	851
Total	1,874	1,918

Pension Benefits: The Plan provides pension, disability and death benefits. Employees who are 100% vested are entitled to pension benefits beginning at the normal retirement date, which is the first day of the month that follows the earlier of (a) the later of (i) the participant's 65th birthday or (ii) the date on which the participant completes five years of credited service or (b) the date on which the participant's age and service, computed in years and months, is equal to 80 years. The amount payable to participants is equal to the amount of the participant's accrued benefit, with previously defined limitations, as defined in the Plan.

Optional forms of distribution were made available to each individual or beneficiary entitled to a retirement benefit in pay status as of Jan. 1, 2002. Each individual or beneficiary was offered a one-time election of a lump-sum distribution representing either 100% or 50% of the present value of such individual's vested accrued retirement benefit determined as of Jan. 1, 2002. Individuals who elected a 50% lump-sum distribution received the remaining 50% of the present value of such individual's vested accrued retirement benefit as a monthly retirement benefit. Vested individuals, whose employment with LCRA terminated prior to Jan. 1, 2002, had a one-time election to receive 100% of the present value of such individual's vested accrued retirement benefit determined as of Jan. 1, 2002.

Option A: Under Option A, LCRA pays 100% of the pension cost and matches 25% of the first 4% of pay an employee contributes to LCRA's 401(k) Plan. Employees under this option may retire with their unreduced accrued benefits at age 65 with five years of participation, or when the total of their age and service equals 80, effective July 1, 1994. Effective July 1, 1995, an employee who is fully vested, may purchase additional service credits subject to certain limitations. The normal form of monthly benefit at retirement is payable in a 10-year certain and life thereafter form of an annuity. There are other actuarially equivalent monthly payment forms available. Lump-sum payment values also are available as a form of payment. This option closed to new participants as of Jan. 1, 2002.

The retirement benefit for each year of service is 1.75% of the highest five-year average monthly compensation plus 0.4% of that portion of the highest five-year average monthly compensation, which exceeds the monthly integration level. The monthly integration level is a sliding scale based upon the calendar year in which termination of employment occurs, with the level being $3,300 for those terminating employment in 2020 and later.

Option B: This option differs from Option A by establishing an account for each employee. The account is for recordkeeping purposes only and does not represent a statement of interest of the participant in actual assets of the Plan. The value of the participant's account is adjusted by increasing the balance by 4% of the participant's compensation paid during that month. The account will earn a 7% fixed rate in interest each year. This option also offers an enhanced 401(k) match. LCRA matches 100% of the first 4% of pay an employee contributes to the 401(k) account. LCRA matches 50% of the next 2% of pay contributed to the account. The normal retirement benefit for an employee provided under this option who has reached a normal retirement date shall be a single lump-sum payment equal to the participant's accrued retirement benefit (i.e., the participant's account balance). The participant may elect an optional form of payment of retirement benefits, as provided by the Plan. This option closed to new participants on May 1, 2012.

Administrative Expenses: Administrative expenses are paid by the Plan, as provided by the Plan document. Certain expenses incurred in connection with the general administration of the Plan and paid by the Plan are recorded as deductions in the accompanying statements of changes in fiduciary net position. In addition, certain investment-related expenses are included in the net appreciation of fair value of investments presented in the accompanying statements of changes in fiduciary net position.

2. Summary of Significant Accounting Policies

Reporting Entity: LCRA sponsors the Plan. The Plan does not purport to present, and does not present, the financial position or changes in financial position of LCRA as of any date or for any period. Certain information regarding the Plan is included in the notes to LCRA's financial statements.

Use of Estimates: The financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America (GAAP). GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein; disclosures of contingent assets and liabilities; the actuarial present value of accumulated plan benefits at the date of the financial statements; and changes therein. Actual results could differ from those estimates.

Risk: The Plan invests in different types of investments, which are exposed to various risks that have the potential to result in losses. These risks are custodial credit risk, credit risk, concentration of credit risk, interest rate risk and foreign currency risk. Each risk is described in detail on the following pages. Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in the fair values of investments will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net position.

Basis of Accounting: The financial statements of the Plan are reported using the economic resources measurement focus and are prepared on the accrual basis of accounting in conformity with GAAP. Revenues are recorded when earned, and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. The Plan applies all applicable Governmental Accounting Standards Board (GASB) pronouncements and presents its financial statements in accordance with the GASB Codification of Governmental Accounting and Financial Reporting Standards.

Cash and Cash Equivalents: Cash and cash equivalents include money market and interest-bearing investments. The Plan considers all highly liquid investments with an original maturity of three months or less at the date of purchase to be cash equivalents.

Investment Valuation and Income Recognition: GASB Statement No. 72, *Fair Value Measurement and Application* (Statement No. 72) addresses the accounting and reporting issues related to fair value measurements.

Fair value is the price that would be received to sell an asset in an orderly transaction between market participants. Investments are reported at fair value based on quoted market prices, or when quoted market prices are not readily determinable, estimated fair values using observable inputs, including quoted prices for similar securities, interest rates and a fixed income pricing model that uses available market rates. For investments in limited partnerships where no readily determinable fair value exists, the fair value of the investment is based on the net asset value per share calculated as the most recent capital account balance of each limited partnership as communicated by the investment administrator, adjusted for subsequent contributions, distributions and withdrawals, and adjusted as necessary by the Plan for current market conditions. Shares of registered investment companies (mutual funds) are reported at net asset value. Fair values may have changed significantly after year end.

The Plan uses various methods to measure the fair value of investments on a recurring basis. Statement No. 72 establishes a hierarchy that prioritizes inputs to valuation methods. The three levels of inputs are:

Level 1 – Unadjusted quoted prices in active markets for identical assets and liabilities that the Plan has the ability to access.

Level 2 – Observable inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These inputs may include quoted prices for the identical instrument in an inactive market, prices for similar instruments, interest rates, prepayment speeds, credit risks, yield curves, default rates and similar data.

Level 3 – Unobservable inputs for the asset or liability, to the extent relevant observable inputs are not available, representing the Plan's own assumptions about the assumptions a market participant would use in valuing the asset or liability, and would be based on the best information available.

The availability of observable inputs can vary from security to security and is affected by a wide variety of factors, including for example, the type of security, whether the security is new and not yet established in the marketplace, the liquidity of markets, and other characteristics particular to the security. To the extent valuation is based on models or inputs less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in level 3.

The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy in which the fair value measurement falls is determined based on the lowest level input significant to the fair value measurement in its entirety.

Investments measured at net asset value do not have significant terms or conditions for redemption or commitment for additional funding.

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. U.S. Treasury securities, agency securities, corporate bonds and other asset-backed securities are valued at the recent closing price reported on the market in which individual securities are traded on the last day of the Plan's year (level 2). Mutual funds, limited partnerships and real estate investment trusts are valued using net asset value. Equity securities are valued at market prices as reported for the last day of the Plan year (level 1).

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes the Plan's gains and losses on investments bought and sold, as well as unrealized gains and losses on investments held at year-end.

Payment of Benefits: Benefit payments to participants are recorded when due and payable under terms of the Plan.

3. Net Pension Liability

The employer's net pension liability was measured as of Dec. 31, 2022, and Dec. 31, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of Jan. 1, 2023, and Jan. 1, 2022.

Actuarial Assumptions: The total pension liability in the Dec. 31, 2022, and Dec. 31, 2021, GASB Statement No. 67, *Financial Reporting for Pension Plans*, actuarial valuations were determined using the following actuarial assumptions applied to all periods included in the measurement:

Actuarial Assumptions	
Inflation	2.50%
Salary increases	4.25%, plus merit and promotion increases that vary by age and service
Investment rate of return	7.00%, net of pension plan investment expense, including inflation

For both of the 2022 and 2021 Plan years, mortality rates were based on the published mortality tables PubG-2010(A) with general projection using scale MP-2020. For both plan years, the assumed retirement rates, termination rates and rates of salary increase due to merit and promotion were based on an experience study over the four plan years ending in 2020.

The long-term expected rate of return on pension plan investments is reviewed annually and is determined using a building-block method in which expected future net real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These components are combined to produce the long-term expected rate of return by weighting the expected future net real rates of return by the current target asset allocation percentage (currently resulting in 5%) and by adding expected inflation (2.50%). The rate of return assumption used for the years ended Dec. 31, 2022, and 2021, was 7.00%.

The target allocation and expected arithmetic net real rates of return for each major asset class are summarized in the following table for the year ended Dec. 31, 2022, and the year ended Dec. 31, 2021.

	Dec. 31, 2022		Dec. 31, 2021	
Asset Class	Target Allocation	Long-Term Expected Net Real Rate of Return	Target Allocation	Long-Term Expected Net Real Rate of Return
Domestic equity				
Large cap	30.0%	6.1%	28.0%	6.1%
Small/mid cap	7.0%	6.6%	6.0%	6.6%
International equity				
Developed	22.0%	6.6%	24.0%	6.6%
Emerging markets	3.0%	7.6%	4.0%	7.6%
Fixed income				
Core	14.0%	1.6%	20.0%	1.6%
Limited duration fixed income	6.0%	0.6%		
High yield	4.0%	3.1%	4.0%	3.1%
Emerging markets	4.0%	2.6%	4.0%	2.6%
Alternatives				
Directional hedge	5.0%	5.1%	5.0%	5.1%
Private real estate	5.0%	5.1%	5.0%	5.1%
Total	100.0%		100.0%	
Weighted average		5%		5%

Discount Rate: The discount rate used to measure the total pension liability as of Jan. 1, 2023, and Jan. 1, 2022, was 7.00%. No projection of cash flows was used to determine the discount rate because the Jan. 1, 2023, and Jan. 1, 2022, actuarial valuation showed that expected contributions would pay the normal cost and amortize net pension liability in 17 and 18 years, respectively. Because of the 17-year amortization period with level dollar amortization of net pension liability, the pension plan's fiduciary net position is expected to be available to make all projected future benefit payments of current active and inactive members. Therefore, the long-term expected rate of return on pension plan investments of 7.00% was applied to all periods of projected benefit payments as the discount rate to determine the total pension liability.

Components of the Net Pension Liability: The following summarizes the components of the net pension liability as of Dec. 31, 2022, and Dec. 31, 2021, for the pension plan included in LCRA Fiduciary Fund Statements in accordance with GASB 67, *Financial Reporting for Pension Plans - An Amendment of GASB Statement 25*.

Components of the Net Pension Liability
(Dollars in thousands)

Employer's net pension liability	Dec. 31, 2022 [1]	Dec. 31, 2021
Total pension liability	$ 640,503	$ 638,652
Plan fiduciary net position	425,572	518,834
Net pension liability	$ 214,931	$ 119,818
Plan fiduciary net position as a percentage of the total pension liability	66.4 %	81.2 %

1. Plan fiduciary net position includes entries after the GASB 67 report was finalized.

4. Investments

The Plan's investments are held in a trust and managed by independent investment managers, investment consultants and the Board. Investment guidelines historically have been established by the Board and then used to measure and manage performance. They are included in the Plan's written master statement, which is periodically reviewed by the Board and may be amended by the Board.

The primary goal of the Plan is to provide participants and their beneficiaries with retirement benefits according to provisions of the Plan. The Plan's assets must be invested with the care, skill and diligence a prudent expert acting in this capacity would undertake. The overall investment objective of the Plan is to invest the funds in such a manner as to achieve a reasonable growth of the corpus while maintaining a consistent payout capability. This should be achieved within the framework of the master statement consistent with the Plan's general objective of safety and preservation of principal. The minimum expected total return is the actuarial assumption approved by the Board on an annualized basis. The actuarial rate of return is a figure that should be net of expenses. This objective should be pursued as a long-term goal designed to maximize the benefits available without exposure to undue risk.

The annual total return objective should be greater than the actuarial assumption, and the investments of the total Plan (as defined as the market value by the annual audit report) should produce a total return equal to or greater than the custom index. The custom index is defined as an index designed to match the asset allocation of the Plan by replacing each asset class with the corresponding percentage of index returns.

The investment manager is granted discretionary authority to manage assets of the Plan for the Board. Among other things, this master statement establishes policies regarding the current asset allocation strategies of the Plan and the duties and obligations of the investment manager. The investment manager must manage the Plan assets according to the investment philosophy as presented to the Board when hired. No deviation from stated philosophy is authorized unless first discussed with the Board and its independent investment adviser, and the prior written consent of the Board in each instance is obtained.

The Board expects the total portfolio to achieve the following objectives over a five-year rolling average: (1) an annual total return greater than the actuarial assumption (currently 7.00%) and (2) investments of the Plan should produce a total return equal to or greater than the custom index.

These guidelines shall be reviewed periodically and can be changed by the Board at any time. The investment manager will be notified of any changes and will have a maximum of 30 days to comply. For Dec. 31, 2022, and Dec. 31, 2021, no investments are valued at fair value.

Investments measured at net asset value as of Dec. 31, 2022, are as follows:

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

Investments Measured at NAV	Equities	Fixed Income	Net Asset Value	Redemption Frequency (if currently eligible)	Redemption Notice Period	Weighted Average Maturity	Credit Rating
Alternative investments/limited partnerships							
SEI Special Situations Collective Fund [4]			$ 25,542	June/Dec.	95 days	N/A	N/A
SGOF Liquidating Feeder LTD			435	Redeemed	N/A	N/A	N/A
Total alternative investments/limited partnerships			25,977				
Real estate alternative investments							
SEI Core Property Fund CIT			32,229	Quarterly	95 days	N/A	N/A
Mutual funds							
SIIT S&P 500 Index Fund [1]	$117,588	-	117,588	Daily	N/A	N/A	N/A
SIIT World Equity Ex-US Fund [2]	93,482	-	93,482	Daily	N/A	N/A	N/A
SIIT Core Fixed Income Fund [3]	-	$ 57,284	57,284	Daily	N/A	9.6 years	AA- / Aa2
SIIT Small/Mid-Cap Equity Fund [1]	27,117	-	27,117	Daily	N/A	N/A	N/A
SIIT Emerging Markets Equity Fund [2]	12,811	-	12,811	Daily	N/A	N/A	N/A
SIIT Emerging Markets Debt Fund [5]	-	16,973	16,973	Daily	N/A	9.9 years	BBB- / Baa3
SIIT High Yield Bond Fund [3]	-	15,993	15,993	Daily	N/A	5.8 years	B+ / B1
SEI Limited Duration Bond Fund A	-	24,098	24,098				
Total mutual funds	$250,998	$114,348	$365,346				
Total investments measured at NAV			$423,552				

1 Domestic equity holdings consist of equity securities of companies that are listed on registered exchanges or actively traded in the over-the-counter market of the United States. The equity portion also may be invested in securities that are not readily marketable (illiquid and restricted securities), receipts, securities issued by investment companies, warrants, repurchase agreements, convertible securities and U.S. dollar denominated securities of foreign issuers that are traded on registered exchanges or listed on NASDAQ.

2 Non-U.S. equity holdings will consist primarily of equity securities (common stocks, securities that are convertible into common stocks, preferred stocks, warrants and rights to subscribe to common stocks) of non-U.S. issuers purchased in foreign markets, on U.S. or foreign registered exchanges, or the over-the-counter markets. The issuers of the securities are located in countries other than the United States, including emerging market countries.

3 Domestic fixed income may consist of both investment grade and high-yield holdings. The investment grade portion of the domestic fixed income portfolio consists of fixed income securities that are rated investment grade or better, i.e., rated in one of the four highest rating categories by a nationally recognized statistical ratings organization at the time of purchase or, if not rated, are determined to be of comparable quality. This portion of the portfolio may hold traditional fixed income securities, such as bonds and debentures issued by domestic and foreign private and governmental issuers, including mortgage-backed and asset-backed securities. The high-yield portion of the domestic fixed income portfolio will consist of fixed income securities that are rated below investment grade, i.e., rated below the top four rating categories by a Nationally Recognized Statistical Ratings Organization (NRSRO) at the time of purchase or, if not rated, determined to be of comparable quality. There is no bottom limit on the ratings of high-yield securities that may be purchased and held in the portfolio.

4 A hard lockup does not permit an investor to request a capital redemption until after the lockup date passes for a Special Situations Collective Fund. As of Dec. 31, 2022, the lockup period has been met.

5 Non-U.S. fixed income may consist of both a non-U.S. investment grade portion and an emerging debt portion. The non-U.S. investment grade portion of the fixed income portfolio will consist of securities of non-U.S. issuers located in countries other than the United States. The non-U.S. investment grade portion will concentrate its investments in developed countries. Non-U.S. investment grade fixed income securities will be traditional fixed income securities, such as bonds and debentures, and will be issued by foreign private and governmental issuers and may include mortgage-backed and asset-backed securities. The portfolio also may contain structured securities that derive interest and principal payments from specified assets or indices. All such investments will be in investment grade securities denominated in various currencies, including the European Currency Unit. Investment grade securities are rated in one of the highest four rating categories by a NRSRO or, if not rated, determined to be of comparable quality.

Investments measured at net asset value as of Dec. 31, 2021, are as follows:

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

Investments Measured at NAV	Equities	Fixed Income	Net Asset Value	Redemption Frequency (if currently eligible)	Redemption Notice Period	Weighted Average Maturity	Credit Rating
Alternative investments/limited partnerships							
SEI Special Situations Collective Fund [4]			$ 25,600	June/Dec.	95 days	N/A	N/A
Real estate alternative investments							
SEI Core Property Fund CIT			29,092	Quarterly	95 days	N/A	N/A
Mutual funds							
SIIT S&P 500 Index Fund [1]	$143,899	-	143,899	Daily	N/A	N/A	N/A
SIIT World Equity Ex-US Fund [2]	123,684	-	123,684	Daily	N/A	N/A	N/A
SIIT Core Fixed Income Fund [3]	-	$ 98,527	98,527	Daily	N/A	8.0 years	AA- / Aa3
SIIT Small/Mid-Cap Equity Fund [1]	31,226	-	31,226	Daily	N/A	N/A	N/A
SIIT Emerging Markets Equity Fund [2]	22,701	-	22,701	Daily	N/A	N/A	N/A
SIIT Emerging Markets Debt Fund [5]	-	19,867	19,867	Daily	N/A	10.7	BBB- / Baa3
SIIT High Yield Bond Fund [3]	-	19,968	19,968	Daily	N/A	3.9 years	B+ / B1
Total mutual funds	$321,509	$138,363	$459,872				
Total investments measured at NAV			$514,564				

[1] Domestic equity holdings consist of equity securities of companies that are listed on registered exchanges or actively traded in the over-the-counter market of the United States. The equity portion also may be invested in securities that are not readily marketable (illiquid and restricted securities), receipts, securities issued by investment companies, warrants, repurchase agreements, convertible securities and U.S. dollar denominated securities of foreign issuers that are traded on registered exchanges or listed on NASDAQ.

[2] Non-U.S. equity holdings will consist primarily of equity securities (common stocks, securities that are convertible into common stocks, preferred stocks, warrants and rights to subscribe to common stocks) of non-U.S. issuers purchased in foreign markets, on U.S. or foreign registered exchanges, or the over-the-counter markets. The issuers of the securities are located in countries other than the United States, including emerging market countries.

[3] Domestic fixed income may consist of both investment grade and high yield holdings. The investment grade portion of the domestic fixed income portfolio consists of fixed income securities that are rated investment grade or better, i.e., rated in one of the four highest rating categories by a nationally recognized statistical ratings organization at the time of purchase or, if not rated, are determined to be of comparable quality This portion of the portfolio may hold traditional fixed income securities, such as bonds and debentures issued by domestic and foreign private and governmental issuers, including mortgage-backed and asset-backed securities. The high-yield portion of the domestic fixed income portfolio will consist of fixed income securities that are rated below investment grade, i.e., rated below the top four rating categories by a Nationally Recognized Statistical Ratings Organization (NRSRO) at the time of purchase or, if not rated, determined to be of comparable quality. There is no bottom limit on the ratings of high-yield securities that may be purchased and held in the portfolio.

[4] A hard lockup does not permit an investor to request a capital redemption until after the lockup date passes for a Special Situations Collective Fund. As of Dec. 31, 2022, the lockup period has been met.

[5] Non-U.S. fixed income may consist of both a non-U.S. investment grade portion and an emerging debt portion. The non-U.S. investment grade portion of the fixed income portfolio will consist of securities of non-U.S. issuers located in countries other than the United States. The non-U.S. investment grade portion will concentrate its investments in developed countries. Non-U.S. investment grade fixed income securities will be traditional fixed income securities, such as bonds and debentures, and will be issued by foreign private and governmental issuers and may include mortgage-backed and asset-backed securities. The portfolio also may contain structured securities that derive interest and principal payments from specified assets or indices. All such investments will be in investment grade securities denominated in various currencies, including the European Currency Unit. Investment grade securities are rated in one of the highest four rating categories by a NRSRO or, if not rated, determined to be of comparable quality.

Interest Rate Risk: Interest rate risk is the risk changing interest rates will adversely affect the fair value of investments. The Plan's master statement has no official policy for the management of interest rate risk. In 2022 and 2021, the pension portfolio was invested in mutual funds that are measured at net asset value. For portfolio interest rate risk, see the weighted average maturity in the table on Page 17 for Dec. 31, 2022, and in the table on Page 18 for Dec. 31, 2021.

Credit Risk: Credit risk is the risk an issuer or other counterparty to an investment will not fulfill its obligation. The Plan's master statement restricts the bond portfolio to a minimum average quality credit rating of AA by Standard & Poor's (S&P) (or AA2 by Moody's). A maximum of 20% (based on fair value) can be purchased or held in securities rated between BBB- (S&P) or BAA3 (Moody's) and BBB+ (S&P) or BAA1 (Moody's). At no time may the investment manager hold more than 3% of the fair value of the fixed income portfolio in securities that have fallen below BBB- (S&P) or BAA3 (Moody's). Commercial paper investments must not be rated lower than A-1 and P-1 by S&P and Moody's, respectively, with other short-term obligations rated at comparable credit quality. During 2022 and 2021, the pension portfolio was invested in mutual funds that are measured at net asset value. For portfolio credit risk, see the credit ratings in the table on Page 17 for Dec. 31, 2022, and in the table on Page 18 for Dec. 31, 2021.

Foreign Currency Risk: Foreign currency risk is the risk changing exchange rates will adversely affect the fair value of an investment. The Plan's master statement does not include an official policy for the management of foreign currency risk. It does, however, allow for hedging back to the U.S. dollars using forward foreign exchange contracts. Investment managers may hedge up to 100% of the foreign currency exposure of the portfolio. Commercial and investment banks used for hedging transactions must be rated A/A2 or better by S&P or Moody's, respectively. As of Dec. 31, 2022, and Dec. 31, 2021, the Plan had investments in mutual funds with an exposure to foreign currency risk of $105 million and $139 million, respectively.

The funds that compose the foreign currency risk totals for Dec. 31, 2022, and Dec. 31, 2021, are the SIIT World Equity Ex-US Fund, SIIT Emerging Markets Equity Fund and SIIT Emerging Markets Debt Fund held in the custodial account. The U.S. investments were removed from the exhibit and the totals below will not match the sum of the fund balances presented elsewhere in the financial statements.

Currency by Investment and Fair Value
(U.S. dollars in thousands)

Investments	Dec. 31, 2022	Dec. 31, 2021
Euro	$ 27,745	$ 31,466
Japan, Yen	9,350	14,317
Hong Kong, Dollar	7,659	11,279
Korea (South), Won	5,731	9,256
Great Britain, Pound Sterling	11,938	11,049
Taiwan, Dollar	3,073	7,519
Switzerland, Franc	4,397	6,814
Other	35,477	47,529
Total Investment Fair Value	$ 105,370	$ 139,229

Money-Weighted Rate of Return: For the year ended Dec. 31, 2022, and the year ended Dec. 31, 2021, the annual money-weighted rates of return on pension plan investments were (14.4)% and 12.6%, respectively. The money-weighted rates of return express investment performance, net of investment expenses, adjusted for the changing amount actually invested.

Custodial Credit Risk Investment Risk: Custodial credit risk investment risk is the risk that in the event of the failure of the counterparty, the entity will not be able to recover the value of its investments or collateral securities in the possession of the outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the entity's name and are held by a counterparty. The Plan has custodial accounts registered in the name of the Plan with discretion over those accounts. These investments are uninsured. There were no fixed income or equity securities as of Dec. 31, 2022, or as of Dec. 31, 2021. During 2022 and 2021, the portfolio was invested in mutual funds, which are measured at net asset value and, therefore, do not carry similar risks as in previous years.

5. Tax Status

The Plan obtained its latest determination letter dated Feb. 27, 2015, in which the Internal Revenue Service stated the Plan and related trust, as then designed, were in compliance with the applicable requirements of the Internal Revenue Code and, therefore, not subject to tax. The Plan is not subject to the provisions of the Employee Retirement Income Security Act of 1974.

6. Risks and Uncertainties

Plan contributions are made, and the actuarial present value of accumulated Plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

7. Subsequent Events

The Plan has evaluated subsequent events through July 28, 2023, the date the financial statements were available to the issued, and there were no subsequent events to be disclosed.

Required Supplementary Information

LOWER COLORADO RIVER AUTHORITY RETIREMENT PLAN AND TRUST
SCHEDULE OF EMPLOYER CONTRIBUTIONS
As of and for the Years and Periods Ended March 31, 2014, through Dec. 31, 2022

A. Schedule of Changes in Employer's Net Pension Liability
and Related Ratios for the Last 10 Plan Years
(Dollars in thousands)

	Plan Year Ending				
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018
1. Total pension liability					
a. Service cost	$ 5,776	$ 5,273	$ 5,464	$ 5,581	$ 5,767
b. Interest cost	43,426	44,032	43,437	43,449	41,127
c. Purchase of optional credited service	432	—	101	249	325
d. Difference between expected and actual	330	(6,480)	4,992	1,186	1,671
e. Changes in assumptions	—	(5,032)	—	15,004	22,823
f. Benefit paid to participants	(48,113)	(45,801)	(44,812)	(42,896)	(39,713)
g. Plan amendments	—	—	—	—	—
h. Net change in total pension liability	1,851	(8,008)	9,182	22,573	32,000
i. Total pension liability, beginning of period	638,652	646,660	637,478	614,905	582,905
j. Total pension liability, end of period	640,503	638,652	646,660	637,478	614,905
2. Plan fiduciary net position					
a. Contributions by employer	27,759	27,500	31,000	24,446	23,893
b. Contributions by participants	432	—	101	249	325
c. Net investment income	(73,140)	58,964	62,565	65,696	(26,588)
d. Benefit paid to participants	(48,113)	(45,801)	(44,812)	(42,896)	(39,713)
e. Administrative and other expenses	(200)	(252)	(309)	(255)	(84)
f. Net change in plan fiduciary net position	(93,262)	40,411	48,545	47,240	(42,167)
g. Plan fiduciary net position, beginning of period	518,834	478,423	429,878	382,638	424,805
h. Plan fiduciary net position, end of period	$ 425,572	$ 518,834	$ 478,423	$ 429,878	$ 382,638
3. Employer's net pension liability [Items 1(j)-2(h)]	$ 214,931	$ 119,818	$ 168,237	$ 207,600	$ 232,267
4. Plan fiduciary net position as a percentage of total pension liability	66.4 %	81.2 %	74.0 %	67.4 %	62.2 %
5. Covered payroll	$ 94,084	$ 96,733	$ 102,768	$ 104,489	$ 108,601
6. Employer's net pension liability as a percentage of covered payroll	228.4 %	123.9 %	163.7 %	198.7 %	213.9 %

A. Schedule of Changes in Employer's Net Pension Liability and Related Ratios for the Last 10 Plan Years (continued)
(Dollars in thousands)

	Plan Year Ending				
	Dec. 31, 2017	Dec. 31, 2016	Mar. 31, 2016	Mar. 31, 2015	Mar. 31, 2014
1. Total pension liability					
a. Service cost	$ 6,132	$ 4,957	$ 6,446	$ 7,154	$ 7,161
b. Interest cost	40,899	30,129	38,136	37,738	37,177
c. Purchase of optional credited service	238	620	1,231	373	1,214
d. Difference between expected and actual experience	985	7,648	4,585	(6,402)	—
e. Changes in assumptions	—	12,369	21,020	—	—
f. Benefit paid to participants	(44,837)	(27,476)	(38,088)	(32,881)	(43,798)
g. Plan amendments	—	—	130	219	—
h. Net change in total pension liability	3,417	28,247	33,460	6,201	1,754
i. Total pension liability, beginning of period	579,488	551,241	517,781	511,580	509,826
j. Total pension liability, end of period	582,905	579,488	551,241	517,781	511,580
2. Plan fiduciary net position					
a. Contributions by employer	22,892	15,099	21,063	27,496	31,210
b. Contributions by participants	238	620	1,231	373	1,214
c. Net investment income	43,708	14,851	815	22,901	39,848
d. Benefit paid to participants	(44,837)	(27,476)	(38,088)	(32,881)	(43,798)
e. Administrative and other expenses	(316)	(9)	(4)	(319)	(238)
f. Net change in plan fiduciary net position	21,685	3,085	(14,983)	17,570	28,236
g. Plan fiduciary net position, beginning of period	403,120	400,035	415,018	397,448	369,212
h. Plan fiduciary net position, end of period	$ 424,805	$ 403,120	$ 400,035	$ 415,018	$ 397,448
3. Employer's net pension liability [Items 1(j)-2(h)]	$ 158,100	$ 176,368	$ 151,206	$ 102,763	$ 114,132
4. Plan fiduciary net position as a percentage of total pension liability	72.9 %	69.6 %	72.6 %	80.2 %	77.7 %
5. Covered payroll	$ 112,700	$ 91,427	$ 122,108	$ 127,029	$ 123,227
6. Employer's net pension liability as a percentage of covered payroll	140.3 %	192.9 %	123.8 %	80.9 %	92.6 %

B. Schedule of Employer Contributions for the Last 10 Plan Years
(Dollars in thousands)

	Plan Year Ending				
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018
1. Actuarially determined contribution	$ 23,800	$ 24,568	$ 23,699	$ 20,436	$ 20,451
2. Contributions in relation to the actuarially determined contribution	27,759	27,500	31,000	24,446	23,893
3. Contribution excess	(3,959)	(2,932)	(7,301)	(4,010)	(3,442)
4. Covered payroll	94,084	96,733	102,768	104,489	108,601
5. Contribution as a percentage of covered payroll	29.5 %	28.4 %	30.2 %	23.4 %	22.0 %

B. Schedule of Employer Contributions for the Last 10 Plan Years (continued)
(Dollars in thousands)

	Plan Year Ending				
	Dec. 31, 2017	Dec. 31, 2016	Mar. 31, 2016	Mar. 31, 2015	Mar. 31, 2014
1. Actuarially determined contribution	$ 18,580	$ 13,935	$ 16,969	$ 19,307	$ 20,892
2. Contributions in relation to the actuarially determined contribution	22,892	15,099	21,063	27,496	31,210
3. Contribution excess	(4,312)	(1,164)	(4,094)	(8,189)	(10,318)
4. Covered payroll	112,700	91,427	122,108	127,029	123,227
5. Contribution as a percentage of covered payroll	20.3 %	16.5 %	17.2 %	21.6 %	25.3 %

Notes to Schedule above: Actuarially determined contribution (ADC) for each plan year was calculated in the actuarial valuation at the beginning of the year through the plan year ending Dec. 31, 2016. The ADC for the plan year ending Dec. 31, 2017, was based on the actuarial valuation as of April 1, 2016. Beginning with the plan year ending Dec. 31, 2018, the ADC was based on actuarial valuation one year before the start of the plan year. Therefore, the ADC for the plan year ending Dec. 31, 2022, was based on the actuarial valuation as of Jan. 1, 2021. Methods and assumptions used to determine the ADCs:

Actuarial cost method	Entry age
Amortization method	Level dollar amount, closed period
Remaining amortization period	18, 19, 17, 18, 19, 20 and 21 years, respectively, for years ending Dec. 31 in 2022, 2021, 2020, 2019, 2018, 2017 and 2016; 22, 23 and 24 years, respectively, for years ending March 31 in 2016, 2015 and 2014
Asset valuation method	Five-year smoothed market
Inflation	2.5% for years ending Dec. 31 in 2022 and 2021; 2.75% for years ending Dec. 31 in 2020, 2019 and 2018; 3% for years ending Dec. 31 in 2017 and 2016; 3.25% for years ending March 31 in 2016, 2015 and 2014
Salary increases	General wage increase plus merit and promotion increases that vary by age and service; general wage increase of 3.25% for years ending Dec. 31 in 2022, 2021, 2020, 2019 and 2018; 3.5% for years ending Dec. 31 in 2017 and 2016; and 4% for years ending March 31 in 2016, 2015 and 2014
Investment rate of return	7% for years ending Dec. 31 in 2022 and 2021; 7.25% for years ending Dec. 31 in 2020, 2019, 2018, 2017 and 2016; 7.5% for years ending March 31 in 2016, 2015 and 2014
Retirement age	Rates that vary by age and service
Mortality	PubG-2010 above-median income mortality tables for employees and for retirees, projected generationally with projection scale MP-2018 for years ending Dec. 31, 2022, 2021 and 2020; RP-2000 Combined Healthy Mortality Table for males and for females (gender distinct) projected to 2024 by scale AA for years ending Dec. 31 in 2019, 2018, 2017 and 2016 and projected to 2018 by scale AA for years ending March 31 in 2016, 2015 and 2014

C. Schedule of Investment Returns

Plan Year Ending	Annual Money-Weighted Net Rate of Return [1]
Dec. 31, 2022	(14.4)%
Dec. 31, 2021	12.6 %
Dec. 31, 2020	14.8 %
Dec. 31, 2019	17.6 %
Dec. 31, 2018	(6.4)%
Dec. 31, 2017	11.1 %
Dec. 31, 2016	3.8 % [2]
Mar. 31, 2016	0.2 %
Mar. 31, 2015	5.8 %
Mar. 31, 2014	11.0 %

[1] The money-weighted average rate of return expresses investment performance, net of investment expenses, reflecting the estimated effect of the contributions received and the benefits paid during the year.

[2] This is the rate of return for the short plan year of nine months, the transition year to the plan years ending Dec. 31.