CITY OF OAKLAND

AGENDA REPORT

TO: Oakland Police and Fire Retirement System Board (PFRS)

FROM: David F. Jones
Plan Administrator & Secretary

SUBJECT: Approve Printing & Distribution of PFRS Annual Report for the Fiscal Year Ended June 30, 2022

DATE: March 29, 2023

RECOMMENDATION

The PFRS Annual Report for the Fiscal Year ended June 30, 2022 has been completed and is submitted here for the Board approval for Printing and Distribution.

Respectfully submitted,

David F. Jones
Plan Administrator & Secretary
Oakland Police & Fire Retirement Systems

CITY OF OAKLAND

POLICE & FIRE RETIREMENT SYSTEM

ANNUAL REPORT
Fiscal Year Ended June 30, 2022

City of Oakland

CONTENTS

CONTENTS
(Continued)

SECTION 4: ACTUARIAL

IN MEMORIAM

Production Credits
-Layout: Maxine Visaya, Retirement Systems, City of Oakland
-Print Production: City of Oakland Copy Services

SECTION 1
INTRODUCTION

Arthur Nichols Jr.

Sergeant of Police

Served with Oakland Police Department
October 1973 to August 2001

this page intentionally left blank

LETTERS OF TRANSMITTAL

CITY OF OAKLAND

150 FRANK H.OGAWA PLAZA, SUITE 3349 · OAKLAND, CALIFORNIA 94612-2021

Finance Department
Treasury Bureau
Retirement Unit

(510) 238-3307
FAX (510) 238-7129
CA RELAY 711

March 29, 2023

Oakland City Council
1 Frank H. Ogawa Plaza
Oakland, CA 94612

Honorable Mayor Thao and Members of the City Council:

I am pleased to present the annual report of the Oakland Police and Fire Retirement System for the fiscal year ended June 30, 2022. Provided in this report are the Plan's Financial Information, Investment Performance, and Actuarial Valuations and Statistical Information for the corresponding year.

The members of the Board express their appreciation to the Mayor and City Council, City Administrator, City Attorney, the various City Agencies and Departments and the members of their staff for their cooperation and assistance.

Respectfully submitted,

Walter L. Johnson, Sr., President
Oakland Police and Fire Retirement System

LETTERS OF TRANSMITTAL

CITY OF OAKLAND

150 FRANK H.OGAWA PLAZA, SUITE 3349 · OAKLAND, CALIFORNIA 94612-2021

Finance Department (510) 238-3307
Treasury Bureau FAX (510) 238-7129
Retirement Unit CA RELAY 711

March 17, 2023

Oakland Police and Fire Retirement Board
150 Frank H. Ogawa Plaza, Suite 3349
Oakland CA 94612

Board of Trustees:

I am pleased to present the Annual Report of the Oakland Police and Fire Retirement System for the fiscal year ending June 30, 2022.

ACCOUNTING SYSTEM

The accompanying financial statements have been prepared in compliance with the City Charter and in accordance with the accounting and reporting requirements of the Governmental Accounting Standards Board (GASB) and the reporting requirements prescribed by the Government Finance Officers' Association of the United States and Canada (GFOA).

The method for recording revenues and expenses is on an accrual basis. Revenue is taken into account when earned, regardless of the date of the collection, and expenses are recorded when the corresponding liabilities are incurred instead of when payment is made. Amortization of bond premiums and discounts are over the life of the investment security and actuarial reserves are funded via the entry age normal cost method.

ADDITIONS

Additions to the plan includes all income received into the Plan for the Fiscal Year. Pension Plan's sources of income include items such as contributions and investment income. Total additions for the fiscal year ended June 30, 2022 were -$4,134,760.

This amount includes a net investment loss of -$47,954,760. Net investment loss includes appreciation or depreciation in fair value of investments, interest income and dividend income less investment expenses during the fiscal year. In addition, the City contributed $43,820,000 during the fiscal year. As of June 30, 2022, all the System's members are retired.

DEDUCTIONS

Total deductions to the plan in the fiscal year ended June 30, 2022 were $52,910,654. This amount includes deductions of $51,450,001 for pension payments to members and qualified beneficiaries.

RESERVES AND FUNDING

The Police and Fire Retirement System most recent actuarial study values the Plan as of July 1, 2021. Details regarding this actuarial study can be found in Section 4 of this annual report.

As of the most recent actuarial study dated July 1, 2021, the System's Unfunded Actuarial Liability is approximately $159.3 million, and the System had a Funded Ratio of 80.2 percent on a Market Value of Assets (MVA) basis. During fiscal year 2022, the City of Oakland contributed $43.8 million to the System. The next required City contribution is projected to be approximately $32.7 million in FY 2022-2023.

INVESTMENTS

The Police and Fire Retirement System Investment Policy is used as a guideline for all investment activities. The Investment Policy includes an asset allocation plan. The plan consists of six asset classes: Domestic Stocks, International Stocks, Fixed Income Instruments, Credit, Covered Calls and Crisis Risk Offset (CRO). In addition, the Policy also allocates among the different investment management styles.

The System's net investment losses for the year ended June 30, 2022 were $48.0 million mainly due to net depreciation in fair value of the investment portfolio. The actual money-weighted annual investment return for fiscal year 2022 was -10.24%. GASB requires that investments be reported at fair value. The appreciation (depreciation) in fair value of investments held by PFRS is recorded as an increase (decrease) in investment income based on the valuation of investments at year-end.

LETTERS OF TRANSMITTAL

The historical annualized money-weighted rates of return on the portfolios are as follows:

	Total Returns %		
	1 Year	3 Year	5 Year
Total Fund	-10.24%	4.58%	6.14%

ACKNOWLEDGEMENTS

The compilation of this report reflects the combined efforts of the Retirement System Administration Staff, the Board of Trustees, and various professional consultants. Its intent is to provide complete and reliable information to the beneficiaries of the Plan, to serve as a basis for making management decisions, and to ensure compliance with legal provisions affecting the administration of the Plan.

Respectfully submitted,

David F. Jones
Plan Administrator

MEMBERS OF THE BOARD OF ADMINISTRATION

Walter L. Johnson, Sr.
President
Community Representative

Jaime T. Godfrey
Vice President
Bank Representative

John C. Speakman
Fire Department Representative

Plan Administrator
David F. Jones
Treasury Administrator

Legal Advisor, City of Oakland

Mitesh Bhakta
Deputy City Attorney

R. Steven Wilkinson
Insurance Representative

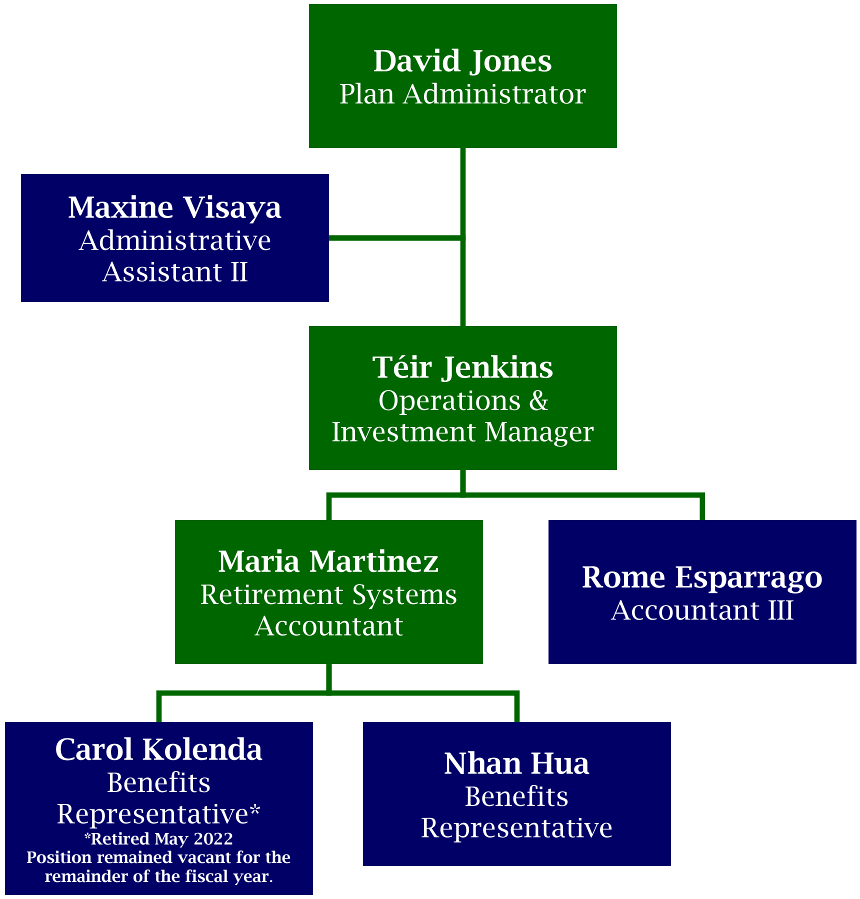
Kevin R. Traylor
Alternating Fire/Police Department Representative

Robert W. Nichelini
Police Representative

Erin Roseman
Mayoral Designate

ADMINISTRATIVE STAFF

Retirement Unit



PROFESSIONAL SERVICES

Over the past year the Board of Administration has engaged the following consultants to

Actuary	Cheiron, Inc.
Auditors	Macias Gini & O'Connell LLP
Custodial Service	The Northern Trust Company
Investment Consultant	Meketa Investment Group

assist in making investments and in developing a sound retirement plan:

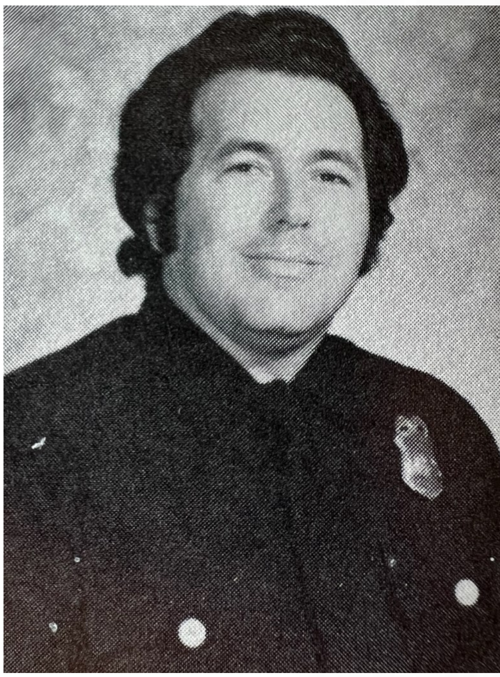
A complete list of Investment Professionals is included on page 52 of this Annual Report.

BOARD MEETING INFORMATION

On-Site Meeting Location	1 Frank H. Ogawa Plaza, Oakland, CA 94612
Virtual Meeting	Zoom Webinar
Date	Last Wednesday of each month

For more information, visit our website at www.oaklandca.gov.

SECTION 2
FINANCIAL



Peter G. Caponio

Firefighter

Served with Oakland Fire Department

April 1968 to January 1987

this page intentionally left blank

MGO Certified Public Accountants

Independent Auditor's Report

Board of Administration
Oakland Police and Fire Retirement System
Oakland, California

Opinion

We have audited the accompanying financial statements of the Oakland Police and Fire Retirement System (System), a pension trust fund of the City of Oakland, California (City), as of and for the years ended June 30, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the System's basic 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 System as of June 30, 2022 and 2021, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

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

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

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. 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.

Macias Gini & O'Connell LLP
2121 N. California Boulevard, Suite 750
Walnut Creek, CA 94596

www.mgocpa.com

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 System's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

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

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of changes in the employer's net pension liability and related ratios, the schedule of employer contributions, and the schedule of investment returns as listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

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

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

Macias Gini & O'Connell LLP

Walnut Creek, California
December 5, 2022

2

Management's Discussion & Analysis
(Unaudited)

As management of the Oakland Police and Fire Retirement System (System), we offer readers of the System's financial statements this narrative overview and analysis of the financial activities of the System for the years ended June 30, 2022 and 2021. We encourage readers to consider the information presented here in conjunction with the System's financial statements that follow this section. These discussions and analyses are presented in the following sections:

- Organizational Overview and Highlights
- Financial Statement Overview
- Financial Analysis: 2022 vs. 2021
- Financial Analysis: 2021 vs. 2020
- Requests for Additional Information

ORGANIZATIONAL OVERVIEW AND HIGHLIGHTS

The City of Oakland City Charter established the System and provides for its funding. Accordingly, the System is an integral part of the City of Oakland (City) and its operations have been reported as a Pension Trust Fund in the City's basic financial statements. The System is a closed, single employer, defined benefit pension plan that provides retirement, disability and survivor benefits for eligible sworn safety employees of the City. The System serves the City's sworn employees hired prior to July 1, 1976 who have not transferred to the California Public Employees' Retirement System (CalPERS). The System is governed by a board of seven trustees: the Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation.

The System has been funded by periodic employee and City contributions at actuarially determined amounts sufficient to accumulate the necessary assets to pay benefits when due as specified by the City Charter, unless the Board and the City have agreed to other funding options. In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contribute a percentage of their earned salaries based upon entry age as determined by consulting actuaries. During the years ended June 30, 2022 and 2021, the employee contribution rate was 0% for both years. There are no active participants in the Plan as of June 30, 2022 and 2021.

In July 2012, the City deposited $210 million in pension obligation bond proceeds into the System and entered into a funding agreement with the System Board, which suspended contributions until the fiscal year beginning July 1, 2017.

As of June 30, 2022, the total pension liability of $553.3 million less the fiduciary net position of $401.5 million results in a net pension liability of approximately $151.8 million. The fiduciary net position as a percentage of the total pension liability is 72.6%.

As of June 30, 2021, the total pension liability of $578.6 million less the fiduciary net position of $458.5 million results in a net pension liability of approximately $120.0. million. The fiduciary net position as a percentage of the total pension liability is 79.3 %.

The System membership at June 30, 2022 is 686, which includes 461 retirees and 225 beneficiaries. The System membership at June 30, 2021 is 723. The following are the significant assumptions used to compute contribution requirements in the July 1, 2021 Actuarial Valuation Report:

- Select and ultimate rates, equal to 5.19% single equivalent investment rate of return
- 2.75% inflation rate, U.S.
- 2.85% inflation rate, Bay Area
- 3.25% long-term post-retirement benefit increases

City contributions are based on spreading costs as a level percentage of the City's total uniform payroll to July 1, 2026. The System uses the entry age normal cost method for its disclosure and reporting. During fiscal years 2022 and 2021, the City contributions were $43.8 million and $43.6 million to the System. The next required City contribution is projected to be approximately $32.7 million in fiscal year 2023.

FINANCIAL STATEMENT OVERVIEW

This annual financial report consists of three parts – management's discussion and analysis (this section), the basic financial statements and required supplementary information. The basic financial statements include *Statements of Fiduciary Net Position; Statements of Changes in Fiduciary Net Position*; and the *Notes to the Basic Financial Statements.*

Management's Discussion & Analysis
(Unaudited)

The *Statements of Fiduciary Net Position* and the *Statements of Changes in Fiduciary Net Position* report information to assist readers in determining whether the System's finances as a whole have improved or deteriorated as a result of the year's activities. These statements report the net position of the System and the activities that caused the changes in the net position during the year, respectively.

The *Statements of Fiduciary Net Position* present information on all System assets and liabilities, with the difference between the two reported as net position restricted for pensions. Over time, increases or decreases in net position restricted for pensions may serve as a useful indicator of whether the financial condition of the System is improving or deteriorating.

While the *Statements of Fiduciary Net Position* provide information about the nature and amount of resources and obligations at year-end, the *Statements of Changes in Fiduciary Net Position* present the results of the System's activities during the fiscal year and information on the change in the net position restricted for pensions during the fiscal year. The *Statements of Changes in Fiduciary Net Position* measure the results of the System's investment performance as well as its additions from contributions and investment income and deductions for payment of benefits and administrative expenses. The *Statements of Changes in Fiduciary Net Position* can be viewed as indicators of the System's progress on the set goals of fully funding all current and past service costs and possessing sufficient additional resources to pay for current refunds of contributions and administrative and investment expenses.

The *Notes to the Basic Financial Statements* and *Required Supplementary Information* provide explanations and other information that is helpful to a full understanding of the data provided in the financial statements. The *Notes to the Basic Financial Statements* and *Required Supplementary Information* are found starting on page **24** and page **46**, respectively.

FINANCIAL ANALYSIS
2022 vs. 2021

Table 1 summarizes net position restricted for pensions as of June 30, 2022 and 2021:

Table 1
Statements of Fiduciary Net Position
As of June 30, 2022 and 2021

	June 30		Change	
	2022	2021	Amount	Percentage
Assets				
Cash and Deposits	$ 7,494,971	$ 6,323,835	$ 1,171,136	18.5%
Receivables	6,218,664	2,469,425	3,749,239	151.8%
Investments	448,337,582	503,773,621	(55,436,039)	-11.0%
Total Assets	462,051,217	512,566,881	(50,515,664)	-9.9%
Liabilities				
Accounts payable	3,200	1,110	2,090	188.2%
Benefits payable	4,183,604	4,294,620	(111,016)	-2.6%
Investments payable	7,700,505	422,993	7,277,512	1720.5%
Investment management fees	300,676	361,228	(60,552)	-16.8%
Securities lending liabilities	48,375,771	48,954,055	(578,284)	-1.2%
Total liabilities	60,563,756	54,034,006	6,529,750	12.1%
Net Position				
Restricted for pensions	$ 401,487,461	$ 458,532,875	$ (57,045,414)	-12.4%

Net position restricted for pensions decreased $57.0 million from June 30, 2021 to June 30, 2022. The main reasons of this decrease were net investment losses of $48.0 million and benefit payments of $51.4 million exceeded the City pension contribution of $43.8 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Management's Discussion & Analysis
(Unaudited)

Table 2 summarizes changes in net position restricted for pensions for the years ended June 30, 2022 and 2021.

Table 2
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2022 and 2021

	June 30		Change	
	2022	2021	Amount	Percentage
Additions				
Contributions from the City	$ 43,820,000	$ 43,648,000	$ 172,000	0.4%
Net investment income/(loss)	(47,954,760)	90,191,309	(138,146,069)	-153.2%
Other additions	-	908	(908)	-100.0%
Total additions	(4,134,760)	133,840,217	(137,974,977)	-103.1%
Deductions				
Benefits to members and beneficiaries	51,450,001	52,697,378	(1,247,377)	-2.4%
Administrative expenses	1,460,653	1,584,654	(124,001)	-7.8%
Total deductions	52,910,654	54,282,032	(1,371,378)	-2.5%
Changes in net position	(57,045,414)	79,558,185	(136,603,599)	-171.7%
Net position restricted for pensions				
Beginning of year	458,532,875	378,974,690	79,558,185	21.0%
End of year	$ 401,487,461	$ 458,532,875	$ (57,045,414)	-12.4%

During fiscal year 2022, the City of Oakland contributed $43.8 million to the System. In addition, the System's net investment losses for the year ended June 30, 2022 were $48.0 million, mainly due to net depreciation in fair value of the investment portfolio. The time-weighted annual return for the year ended June 30, 2022 was -10.4%, compared to a benchmark return of -11.9% and an actuarial expected rate of return of 5.19 %.

Management's Discussion & Analysis
(Unaudited)

FINANCIAL ANALYSIS
2021 vs. 2020

Table 3 summarizes net position restricted for pensions as of June 30, 2021 and 2020.

Table 3
Statements of Fiduciary Net Position
As of June 30, 2021 and 2020

	June 30		Change	
	2021	2020	Amount	Percentage
Assets				
Cash and cash equivalents	$ 6,323,835	$ 6,345,777	$ (21,942)	-0.3%
Receivables	2,469,425	8,099,428	(5,630,003)	-69.5%
Investments	503,773,621	404,700,887	99,072,734	24.5%
Total Assets	512,566,881	419,146,092	93,420,789	22.3%
Liabilities				
Accounts payable	1,110	8,161	(7,051)	-86.4%
Benefits payable	4,294,620	4,431,728	(137,108)	-3.1%
Investments payable	422,993	13,548,872	(13,125,879)	-96.9%
Investment management fees payable	361,228	278,835	82,393	29.5%
Securities lending liabilities	48,954,055	21,903,806	27,050,249	123.5%
Total liabilities	54,034,006	40,171,402	13,862,604	34.5%
Net Position				
Restricted for pensions	$ 458,532,875	$ 378,974,690	$ 79,558,185	21.0%

Net position restricted for pensions increased $79.6 million from June 30, 2021 to June 30, 2022. The main sources of this increase were City contribution of $43.6 million and net investment income of $90.2 million were more than offset by benefit payments of $52.7 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Table 4 summarizes changes in net position restricted for pensions for the years ended June 30, 2021 and 2020.

Table 4
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2021 and 2020

	June 30		Change	
	2021	**2020**	**Amount**	**Percentage**
Additions				
Contributions	$ 43,648,000	$ 43,409,000	$ 239,000	0.6%
Net investment income	90,191,309	6,996,833	83,194,476	1189.0%
Other additions	908	132	776	587.9%
Total additions	133,840,217	50,405,965	83,434,252	165.5%
Deductions				
Benefits to members and beneficiaries	52,697,378	54,619,079	(1,921,701)	-3.5%
Administrative expenses	1,584,654	1,522,910	61,744	4.1%
Total deductions	54,282,032	56,141,989	(1,859,957)	-3.3%
Changes in net position	79,558,185	(5,736,024)	85,294,209	1487.0%
Net position restricted for pensions				
Beginning of year	378,974,690	384,710,714	(5,736,024)	-1.5%
End of year	$ 458,532,875	$ 378,974,690	$ 79,558,185	21.0%

During fiscal year 2021, the City of Oakland contributed $43.6 million to the System. In addition, the System's net investment income for the year ended June 30, 2021 was $90.1 million, mainly due to net appreciation in fair value of the investment portfolio. The time-weighted annual return for the year ended June 30, 2021 was 24.2%, compared to a benchmark return of 22.3% and an actuarial expected rate of return of 5.29 %.

REQUESTS FOR ADDITIONAL INFORMATION

This financial report is designed to provide a general overview of the System's finances and to account for the money that the System receives. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

Retirement System
City of Oakland
150 Frank H Ogawa Plaza, Suite 3349
Oakland, CA 94612

Financial Statements

Oakland Police and Fire Retirement System
Statements of Fiduciary Net Position
June 30, 2022 and 2021

	2022	2021
Assets		
Cash and Cash Equivalents	$ 7,494,971	$ 6,323,835
Receivables:		
Interest Receivable	813,441	758,877
Dividends Receivable	279,524	271,634
Investments Receivable	4,911,786	1,228,684
Retired Members and Beneficiaries	102,906	103,688
Miscellaneous	111,007	106,542
Total Receivables	6,218,664	2,469,425
Investments, at Fair Value:		
Short-Term Investments	7,474,421	7,786,908
Bonds	130,126,766	134,380,629
Domestic Equities and Mutual Funds	158,144,787	210,506,356
International Equities and Mutual Funds	47,911,190	58,539,803
Alternative Investments	56,334,733	44,016,067
Foreign Currency Contracts, Net	-	(7,612)
Securities Lending Collateral	48,345,685	48,551,470
Total Investments	448,337,582	503,773,621
Total Assets	462,051,217	512,566,881
Liabilities		
Accounts Payable	3,200	1,110
Benefits Payable	4,183,604	4,294,620
Investments Payable	7,700,505	422,993
Investment Management Fees Payable	300,676	361,228
Securities Lending Liabilities	48,375,771	48,954,055
Total Liabilities	60,563,756	54,034,006
Net Position Restricted for Pensions	$ 401,487,461	$ 458,532,875

See accompanying notes to the basic financial statements.

Financial Statements

Oakland Police and Fire Retirement System

Statements of Changes in Fiduciary Net Position
Years Ended June 30, 2022 and 2021

	2022	2021
Additions		
Contributions from the City	$ 43,820,000	$ 43,648,000
Investment Income:		
Net Appreciation/(Depreciation) in Fair Value of Investments	(54,534,753)	84,719,944
Interest	4,134,111	3,965,167
Dividends	3,768,733	2,735,230
Less: Investment Expenses	(1,475,655)	(1,354,640)
Securities Lending Income:		
Securities Lending Earnings	264,447	105,651
Securities Lending Expenses, Net of Rebates	(111,643)	19,957
Net Securities Lending Income	152,804	125,608
Net Investment Income/(Loss)	$ (47,954,670)	90,191,309
Claims and Settlements	-	26
Other Income	-	882
Total Additions	(4,134,760)	133,840,217
Deductions		
Benefits to Members and Beneficiaries:		
Retirement	31,495,125	32,157,272
Disability	18,418,545	18,803,904
Death	1,536,331	1,736,202
Total Benefits to Members and Beneficiaries	51,450,001	52,697,378
Administrative Expenses	1,460,653	1,584,654
Total Deductions	52,910,654	54,282,032
Change in Net Position	$ (57,045,414)	79,558,185
Net Position Restricted for Pensions		
Beginning of Year	458,532,875	378,974,690
End of Year	$ 401,487,461	$ 458,532,875

See accompanying notes to the basic financial statements.

Notes to the Basic Financial Statements

For Years Ended June 30, 2022 and 2021

1. Description of the Oakland Police and Fire Retirement System

The Oakland Police and Fire Retirement System (System) is a closed, single-employer defined benefit pension plan (Plan) established by the City of Oakland (City) Charter. The System is governed by a board of seven trustees (Board); the City Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation. As a result of a City Charter amendment, known as Measure R, approved by the electorate on June 8, 1976, membership in the Plan is limited to uniformed employees hired prior to July 1, 1976.

The System is exempt from the regulations of the Employee Retirement Income Security Act of 1974. The System is also exempt from federal and California income taxes.

The System is considered to be a part of the City's financial reporting entity and is included in the City's basic financial statements as a pension trust fund. The financial statements of the System are intended to present only the plan net position and changes in plan net position of the System. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2022 and 2021, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. The City's basic financial statements can be obtained from the Finance Department, Controller's Bureau, City of Oakland, 150 Frank H. Ogawa Plaza, Suite 6353; Oakland, California 94612.

a) System Membership

At June 30, 2022 and 2021, the System membership consisted of only retirees and beneficiaries. The System's membership is as follows:

Retirees and Beneficiaries Currently Receiving Benefits		
	2022	**2021**
Police	422	439
Fire	264	284
Total	686	723

b) Basic Benefit Provisions

The City Charter establishes plan membership, contribution, and benefit provisions. The System provides that any member who completes at least 25 years of service, regardless of age, or completes 20 years of service and attains age 55, or has attained age 65, is eligible for retirement benefits. The basic retirement allowance equals 50% of the compensation attached to the average rank held during the three years immediately preceding retirement, plus an additional allowance of 1 and 2/3% of such compensation for each year of service (up to ten) subsequent to (a) qualifying for retirement and (b) July 1, 1951. However, any member retiring at age 65 with less than 20 years of service shall receive a reduced retirement allowance based upon the number of years of service. A member is eligible for early retirement benefits after 20 to 24 years of service with a retirement allowance based upon 40% to 48% of the compensation attached to the average rank held during the three years preceding retirement. Additionally, a member with 10 to 19 years of service may retire and, on or after the 25th anniversary of his/her date of employment may receive a retirement allowance based upon 20% to 38% of the compensation attached to the average rank held during the three years preceding retirement.

The System also provides for various death, disability, and survivors' benefits. Death and disability benefits are paid to eligible members who became disabled or passed away prior to retirement. If the member's death or disability is duty related, then the surviving spouse or member is paid a pension equivalent to an immediate service retirement. The duty related death or disability pension is paid at a level no less than 50% of the pay attached to the rank. If a death occurs after retirement, then a one-time payment of $1,000 is paid to the member's designated beneficiary.

After retirement, members receive benefits based on a fixed monthly dollar amount. Pension amounts change based on changes to the compensation attached to the average rank. Upon a retiree's death, benefits are continued to an eligible surviving spouse at a two-thirds level for service and non-duty disabled retirees and at a 100% level for retirements for duty disability.

Notes to the Basic Financial Statements

For Years Ended June 30, 2022 and 2021

2. Summary of Significant Accounting Policies

a) Basis of Presentation

The financial statements are prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. The System adheres to the reporting requirements established by the Governmental Accounting Standards Board (GASB).

b) Measurement Focus and Basis of Accounting

The financial statements are prepared on a flow of economic resources measurement focus using the accrual basis of accounting. Contributions are recognized in the period in which the contributions are due pursuant to legal requirements as well as statutory or contractual requirements, and benefits and refunds are recognized when payable under plan provisions.

c) Methods Used to Value Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair values based on the net asset value as determined by the fund manager based on quoted market prices of fund holdings or values provided by the custodian or the applicable money manager. Purchases and sales of investments are recorded on a trade date basis.

d) Use of Estimates

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

3. Contributions

In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contributed a percentage of their earned salaries based upon entry age as determined by consulting actuaries. Since fiscal year 2015, there were no remaining active members in the System.

In March 1997, the City issued pension obligation bonds and deposited $417 million into the System to pay the City's contributions through June 2011. In accordance with an agreement entered into at the time the pension obligation bonds were issued in 1997, the City was not expected to contribute until July 2011. In the year ended June 30, 2005, the City transferred excess proceeds of $17.7 million from the Oakland Joint Powers Financing Authority Refunding Revenue 2005 Series B Bond to fund a portion of the City's future obligation to the System.

Effective July 1, 2011, the City resumed contributing to the System. The City contributed $45.5 million in the year ended June 30, 2012. Using the current actuarial cost method, these contributions are based on spreading costs as a level percentage of all uniformed employees' compensation through June 30, 2026. Budgeted administrative expenses are included in the City contribution rates. The City must contribute, at a minimum, such amounts as are necessary, on an actuarial basis, to provide assets sufficient to meet benefits to be paid to plan members.

On July 30, 2012, the City contributed $210 million to the System. As a result of a funding agreement entered into between the System's Board and the City no additional contributions were required until July 1, 2017. The City resumed contributions to the System on July 1, 2017. The City contributed $43.82 million and $43.65 million in the years ended June 30, 2022 and 2021, respectively. The next required contribution for fiscal year 2023 is $32.71 million.

4. Cash, Deposits and Investments

a) Investment Policy

The System's investment policy authorizes investment in U.S. equities, international equities, U.S. fixed income instruments including U.S. Treasury notes and bonds, government agency mortgage backed securities, U.S. corporate notes and bonds, collateralized mortgage obligations, Yankee bonds and non-U.S.-issued fixed income securities denominated in foreign currencies. The System's investment portfolio is managed by external investment managers, except for the bond iShares which are managed internally. During the years ended June 30, 2022 and 2021, the number of external investment managers was eleven and twelve, respectively.

The System investments are also restricted by the City Charter. In November 2006, City voters passed Measure M to amend the City Charter to allow the System's Board to invest in non-dividend paying stocks and to change the asset allocation structure from 50% equities and 50% fixed income to the Prudent Person Standard as defined by the California Constitution.

The System's investment policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The System's investment policy allows the fixed income managers to invest in fixed income instruments and some exposure to investments below an investment grade rating, as long as the portfolio maintains an average credit quality of BBB (investment grade using Standard & Poor's, Moody's or Fitch ratings).

The System's investment policy states that investments in securities known as collateralized mortgage obligations (CMOs) shall be limited to a maximum of 20% of a broker account's fair value with no more than 5% in any one issue. CMOs are mortgage-backed securities that create separate pools of pass-through rates for different classes of bondholders with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options.

The investment policy allows for each fixed income asset manager to have a maximum of 10% of any single security investment in their individual portfolios with the exception of U.S. government securities, which is allowed to have a maximum of 25% in each manager's portfolio.

The following was the Board's adopted asset allocation policy as of June 30, 2022 and 2021:

	Target Allocation	
Asset Class	**June 30, 2022**	**June 30, 2021**
Fixed Income	21%	21%
Credit	2	2
Covered Calls	5	5
Domestic Equity	40	40
International Equity	12	12
Crisis Risk Offset	20	20
Total	100%	100%

The Board's target allocation does not include cash and cash equivalents, which are designated for approved administrative budget purposes.

b) Concentrations

GASB Statement No. 67 require the disclosure of investments in any one organization that represent 5 percent or more of the System's fiduciary net position. As of June 30, 2022, the System had investments issued by the following organizations that exceeded 5% of its fiduciary net position: Northern Trust Company (18.4%), Vanguard Group (7.3%), and Wellington Select Quality Equity, LP (5.2%). As of June 30, 2021, the System's investment in the Northern Trust Russell 1000 Growth Index Fund represented 24.23% of its fiduciary net position.

c) Rate of Return

The money-weighted rate of return is a measure of the rate of return for an asset or portfolio of assets that incorporates the size and timing of cash flows. For the years ended June 30, 2022 and 2021, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expenses, were -10.24% and 24.43%, respectively.

d) Cash and Cash Equivalents

As of June 30, 2022 and 2021, cash and cash equivalents consisted of cash in treasury held in the City's cash and investment pool as well as cash deposits held in bank and with a custodian. Funds in the City Treasury are invested according to the investment policy adopted by the City Council. Interest earned in the City Treasury is allocated monthly to all participants based on the average daily cash balance maintained by the respective funds. Information regarding the characteristics of the entire investment pool can be found in the City's June 30, 2022 and 2021 basic financial statements. As of June 30, 2022 and 2021, the System's share of the City's investment pool totaled $7,487,892 and $6,318,773, respectively. The System also had cash not included in the City's investment pool. As of June 30, 2022 and 2021, the System's cash and cash deposits not held in the City's investment pool totaled $7,079 and $5,062, respectively.

e) Hierarchy of Inputs

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The System has the following recurring fair value measurements as of June 30, 2022:

Recurring Fair Value Measurements
As of June 30, 2022

	2022			
	Level One	Level Two	Level Three	Total
Investments by fair value level:				
Short-Term Investments	$ -	$ 1,497,607	$ -	$ 1,497,607
Bonds	15,606,180	99,275,321	-	114,881,501
Domestic Equities and Mutual Funds	63,509,351	-	-	63,509,351
International Equities and Mutual Funds	47,543,916	-	367,274	47,911,190
Alternative Investments	30,599,372	-	-	30,599,372
Total investments by fair value level	$ 157,258,819	$100,772,928	$ 367,274	258,399,021
Investments measured at net asset value (NAV):				
Short-Term Investment Funds				5,976,814
Fixed Income Funds				15,245,265
Domestic Equities and Mutual Funds				94,635,436
Hedge Fund				9,894,309
Venture Capital Fund				15,841,052
Securities Lending Collateral - Short-Term Investment Fund				48,345,685
Total investments measured at NAV				189,938,561
Total investments measured at fair value				**$448,337,582**

The System has the following recurring fair value measurements as of June 30, 2021:

Recurring Fair Value Measurements
As of June 30, 2021

	2021		
	Level One	Level Two	Total
Investments by fair value level:			
Bonds	$ 12,635,465	$ 104,543,460	$ 117,178,925
Domestic Equities and Mutual Funds	93,555,401	707,364	94,262,765
International Equities and Mutual Funds	58,539,803	-	58,539,803
Alternative Investments	43,940,518	75,549	44,016,067
Total investments by fair value level	$ 208,671,187	$ 105,326,373	313,997,560
Investments measured at net asset value (NAV):			
Short-Term Investment Funds			7,786,908
Fixed Income Funds			17,201,704
Domestic Equities and Mutual Funds			116,243,591
Foreign Currency Contracts, Net			(7,612)
Securities Lending Collateral - Short-Term Investment Fund			48,551,470
Total investments measured at NAV			189,776,061
Total investments measured at fair value			**$ 503,773,621**

Investments measured at NAV represent commingled funds where fair value is measured based on the System's pro rata share of the total NAV.

Investments Measured at Net Asset Value
As of June 30, 2022

	2021		
	June 30, 2022	Redemption Frequency	Redemption Notice Period
Investments measured at net asset value (NAV):			
Short-Term Investment Funds	$ 5,976,814	n/a	n/a
Fixed Income Funds	6,741,756	n/a	n/a
Fixed Income Funds	8,503,509	n/a	15 days for < $10 million; 60 days for ≥ $10 million
Domestic Equities and Mutual Funds	20,739,219	Monthly	10 days
Domestic Equities and Mutual Funds	73,896,217	n/a	n/a
Hedge Fund	9,894,309	Monthly*	30 days
Venture Capital Fund	15,841,052	Monthly	10 days
Securities Lending Collateral - Short-Term Investment Fund	48,345,685	n/a	n/a
Total investments measured at NAV	$ 189,938,561		

* For full redemptions, a 5% audit holdback is applied that is then paid after the audit is finalized.

f) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As described previously, the System's investment policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The weighted average duration for the System's fixed income investment portfolio excluding fixed income short-term investments, foreign currency contracts, and securities lending investments was 7.59 years as of June 30, 2022, and 7.37 years as of June 30, 2021.

The following summarizes the System's fixed income investments by category as of June 30, 2022 and 2021. As of June 30, 2022, the System held exchange cleared swaps of $70,497 in a liability position that is not included in the tables below.

Short-Term Investment Duration

	2022		2021	
Investment Type	**Fair Value**	**Modified Duration (Years)**	**Fair Value**	**Modified Duration (Years)**
Short-Term Investment Funds	$7,474,421	n/a	$7,786,908	n/a
Foreign Currency Exchange Contracts, Net	-	n/a	(7,612)	n/a

Long-Term Investment Duration

	2022		2021	
Investment Type	**Fair Value**	**Modified Duration (Years)**	**Fair Value**	**Modified Duration (Years)**
Fixed Income Investments				
U.S. Government Bonds				
U.S. Treasuries	$ 25,417,687	6.53	$ 18,816,292	5.79
Government Agencies	29,893,654	8.41	32,516,334	8.26
Total U.S. Government Bonds	55,311,341		51,332,626	
Corporate and Other Bonds				
Corporate Bonds	74,807,108	7.63	82,957,273	7.38
Other Government Bonds	78,814	6.97	90,730	7.90
Total Corporate and Other Bonds	74,885,922		83,048,003	
Total Fixed Income Investments	$ 130,197,263	7.59	$134,380,629	7.37
Securities Lending Collateral	$ 48,345,685		$ 48,551,470	

g) Fair Value Highly Sensitive to Change in Interest Rates

The terms of a debt investment may cause its fair value to be highly sensitive to interest rate changes. The System has invested in CMOs, which are mortgage-backed bonds that pay pass-through rates with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options, which are triggers related to quantities of delinquencies or defaults in the loans backing the mortgage pool. If a balance of delinquent loans reaches a certain threshold, interest and principal that would be used to pay junior bondholders is instead directed to pay off the principal balance of senior bondholders, shortening the life of the senior bonds.

The following are the System's investments in CMOs at June 30, 2022:

Investments in CMOs at June 30, 2022

Investment Type	Weighted Average Coupon Rate	Weighted Average Maturity (Years)	Fair Value	Percent of Total Investments Fair Value
Mortgage-backed securities	2.39%	24.36	$20,820,467	4.64%

The following are the System's investments in CMOs at June 30, 2021:

Investments in CMOs at June 30, 2020

Investment Type	Weighted Average Coupon Rate	Weighted Average Maturity (Years)	Fair Value	Percent of Total Investments Fair Value
Mortgage-backed securities	2.72%	23.28	$20,789,617	4.13%

Notes to the Basic Financial Statements

For Years Ended June 30, 2022 and 2021

h) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation.

The following provides information concerning the credit risk of fixed income securities as of June 30, 2022 and 2021:

Short-Term Investment Ratings

	2022		2021	
Investment Type	S&P / Moody's Rating	Fair Value	S&P / Moody's Rating	Fair Value
Short-Term Investment Funds	Not Rated	$7,474,421	Not Rated	$7,786,908
Foreign Currency Exchange Contracts, Net	Not Rated	-	Not Rated	(7,612)

Long-Term Investment Ratings

	2022		2021	
S&P / Moody's Rating	Fair Value	Percentage of Total Fair Value	Fair Value	Percentage of Total Fair Value
AAA/Aaa	$ 64,115,811	49.5%	$ 53,058,908	39.4%
AA/Aa	27,835,706	21.1%	34,226,943	25.5%
A/A	12,809,876	9.8%	14,322,857	10.7%
BBB/Baa	15,713,952	12.1%	19,359,029	14.4%
BB/Ba	1,196,674	0.9%	1,831,903	1.4%
B/B	21,734	0.0%	9,550,906	7.1%
CCC/CCC	8,503,509	6.5%	-	-
Unrated	(70,497)	0.0%	2,030,083	1.5%
	$130,126,766	100.00%	$134,380,629	100.00%

Securities Lending Ratings

S&P / Moody's Rating	2022 Fair Value	2021 Fair Value
Not Rated	$ 48,345,685	$ 48,551,470

i) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of a depository financial institution or counterparty to a transaction, there will be an inability to recover the value of deposits, investments, or collateral securities in the possession of an outside party.

The California Government Code requires that governmental securities or first trust deed mortgage notes be used as collateral for demand deposits and certificates of deposit at 110 percent and 150 percent, respectively, of all deposits not covered by federal deposit insurance. As the City holds cash and certificates of deposit on behalf of the System, the collateral must be held by the pledging financial institution's trust department and is considered held in the City's name. For all other System deposits, the collateral must be held by the pledging financial institution's trust department and is considered held in the System's name.

The City, on behalf of the System, does not have any funds or deposits that are not covered by depository insurance, which are either uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent, but not in the City's name. The System does not have any investments that are not registered in the name of the System and are either held by the counterparty or the counterparty's trust department or agent but not in the System's name.

j) Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair values of an investment or deposit. Currency hedging is allowed under the System's investment policy for defensive purposes only. The investment policy limits currency hedging to a maximum of 25% of the portfolio value.

The following summarizes the System's investments denominated in foreign currencies as of June 30, 2022 and 2021:

Investments Denominated in Foreign Currencies
As of June 30, 2022 and 2021

	Fair Value	
Foreign Currency	**June 30, 2022**	**June 30, 2021**
Australian Dollar	$ 1,993,400	$ 1,456,518
Brazilian Real	772,622	901,768
British Pound	3,154,218	3,406,619
Canadian Dollar	3,290,894	3,395,211
Danish Krone	895,274	1,386,946
Euro	6,894,262	8,778,172
Hong Kong Dollar	3,464,161	3,664,544
Indonesian Rupiah	555,889	221,352
Japanese Yen	4,662,742	5,888,554
Malaysian Ringgit	65,343	-
Mexican Peso	375,149	108,650
New Israeli Shekel	310,309	-
Singapore Dollar	-	839,140
South African Rand	654,291	575,339
South Korean Won	-	212,370
Swedish Krona	831,667	1,488,233
Swiss Franc	1,734,147	2,344,951
Turkish Lira	133,896	524,786
Total	$ 29,788,264	$ 35,193,153

k) Securities Lending Transactions

The System's investment policy authorizes participation in securities lending transactions, which are short-term collateralized loans of the System's securities to broker-dealers with a simultaneous agreement allowing the System to invest and receive earnings on the collateral received. All securities loans can be terminated on demand by either the System or the borrower, although the average term of loans is one week.

The administrator of the System's securities lending activities is responsible for maintaining an adequate level of collateral in an amount equal to at least 102% of market value of loaned U.S. government securities, common stock and other equity securities, bonds, debentures, corporate debt securities, notes, and mortgages or other obligations held in U.S. Dollars. The minimum collateral level is 105% of market value of loaned securities for any securities held in currencies other than the U.S. Dollar. Collateral received may include cash, letters of credit, or securities. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the said collateral. If securities collateral is received, the System cannot pledge or sell the collateral securities unless the borrower defaults.

As of June 30, 2022 and 2021, management believes the System has minimized its credit risk exposure to borrowers because the amounts held by the System as collateral exceeded the securities loaned by the System. The System's contract with the administrator requires it to indemnify the System if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities borrowed) or fails to pay the System for income distributions by the securities' issuers while the securities are on loan.

The following summarizes investments in securities lending transactions and collateral received at June 30, 2022 and 2021:

Securities Lending as of June 30, 2022

	Fair Value of Loaned Securities		
Investment Type	**For Cash Collateral**	**For Non-Cash Collateral**	**Total**
Securities on Loan for Cash Collateral			
U.S. Government and Agencies	$ 8,379,326	$ -	$ 8,379,326
U.S. Corporate Bonds	10,881,429	-	10,881,429
U.S. Equities	28,047,680	7,249,351	35,297,031
Non-U.S. Equities	-	252,473	252,473
Total investments in securities lending transactions	$ 47,308,435	$ 7,501,824	$54,810,259
Collateral Received	$ 48,376,771	$ 7,742,587	$56,119,358

Securities Lending as of June 30, 2021

	Fair Value of Loaned Securities		
Investment Type	**For Cash Collateral**	**For Non-Cash Collateral**	**Total**
Securities on Loan for Cash Collateral			
U.S. Government and Agencies	$ 9,621,902	$ 5,095,643	$ 14,717,545
U.S. Corporate Bonds	8,852,719	-	8,852,719
U.S. Equities	29,098,075	97,296	29,195,371
Non-U.S. Equities	182,194	514,214	696,408
Total investments in securities lending transactions	$ 47,754,890	$ 5,707,153	$ 53,462,043
Collateral Received	$ 48,954,055	$ 5,840,751	$ 54,794,806

l) Derivative Instruments

The Retirement System reports its derivative instruments under the provisions of GASB Statement No. 53, *Accounting and Financial Reporting for Derivatives Instruments*. Pursuant to the requirements of this statement, the Retirement System has provided a summary of derivative instrument activities during the reporting periods presented and the related risks.

As of June 30, 2022 and 2021, the derivative instruments held by the Retirement System are considered investments and not hedges for accounting purposes. All investment derivatives are reported as investments at fair value in the statements of fiduciary net position. The gains and losses arising from this activity are recognized as incurred in the statement of changes in fiduciary net position. All investment derivatives discussed below are included within the investment risk schedules, which precede this subsection. Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio valuation methods used by the System are described in more detail in Note 2.c). The fair value of the exchange traded derivative instruments, such as futures, options, rights, and warrants are based on quoted market prices. The fair values of forward foreign currency contracts are determined using a pricing service, which uses published foreign exchange rates as the primary source. The fair values of swaps are determined by the System's investment managers based on quoted market prices of the underlying investment instruments.

The tables below present the notional amounts, the fair values, and the related net appreciation (depreciation) in the fair value of derivative instruments that were outstanding at June 30, 2022 and 2021:

As of and for the Year Ended June 30, 2022

Derivative Type / Contract	Notional Amount	Fair Value	Net Appreciation (Depreciation) in Fair Value
Options			
Equity Contracts	$ 59	(243,640)	(244,104)
Swaps			
Credit Contracts	2,554,200	(70,497)	(147,933)
Total	$ 2,554,259	$ (314,137)	$ (96,171)

As of and for the Year Ended June 30, 2021

Derivative Type / Contract	Notional Amount	Fair Value	Net Appreciation (Depreciation) in Fair Value
Forwards			
Foreign Currency Exchange Contracts	$ -	$ (7,612)	$ -
Options			
Equity Contracts	72	(351,506)	(58,431)
Swaps			
Credit Contracts	1,990,000	50,816	7,768
Total	$ 1,990,072	$ (308,302)	$ (50,663)

Counterparty Credit Risk

The System is not exposed to credit risk on non-exchange traded derivative instruments that are in liability positions. As of June 30, 2022 and 2021, the System held forward currency contracts in liability positions of $0 and $7,612, respectively. The System's counterparties to these contract held credit ratings of A or better, as assigned by one or more of the major credit rating organizations (S&P, Moody's and/or Fitch).

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. At June 30, 2022 and 2021 , all of the System's investments in derivative instruments are held in the System's name and are not exposed to custodial credit risk.

Interest Rate Risk

The tables below describe the maturity periods of the derivative instruments exposed to interest rate risk at June 30, 2022 and 2021.

Derivative Interest Rate Risk as of June 30, 2022

Derivative Type / Contract	Fair Value	Maturities: Less than 1 Year	Maturities: 1-5 years
Options			
Equity Contracts	$ (243,640)	$ (243,640)	$ -
Swaps			
Credit Contracts	(70,497)	-	(70,497)
Total	$ (314,137)	$ (243,640)	$ (70,497)

Derivative Interest Rate Risk as of June 30, 2021

Derivative Type / Contract	Fair Value	Maturities: Less than 1 Year	Maturities: 1-5 years
Forwards			
Forward Foreign Currency Exchange Contracts	$ (7,612)	$ (7,612)	$ -
Options			
Equity Contracts	(351,506)	(351,506)	-
Swaps			
Credit Contracts	50,816	-	50,816
Total	$ (308,302)	$ (359,118)	$ 50,816

Foreign Currency Risk

At June 30, 2022, the System had no foreign currency risk. At June 30, 2021 the System was exposed to foreign currency risk on $7,612 of its investments in forwards denominated in the Mexican peso.

Contingent Features

At June 30, 2022 and 2021, the System held no positions in derivatives containing contingent features.

5. Net Pension Liability

The components of the net pension liability of the City at June 30, 2022 and 2021, are as follows:

Net Pension Liability of the City
At June 30, 2022 and 2021

	June 30, 2022	June 30, 2021
Total pension liability	$ 553,287,414	$ 578,579,190
Less: Plan fiduciary net position	(401,487,461)	(458,532,875)
City's net pension liability	$ 151,799,953	$ 120,046,315
Plan fiduciary net position as a percentage of the total pension liability	72.6%	79.3%

a) Actuarial Method and Assumptions

The total pension liability as of June 30, 2022 was determined based on an actuarial valuation as of June 30, 2021, using the entry age normal actuarial cost method and the following actuarial assumptions, applied to all periods included in the measurement.

Actuarial Assumptions	
Investment Rate of Return	5.19%
Inflation Rate, U.S.	2.75%
Inflation Rate, Bay Area	2.85%
Long-term Post-Retirement Benefit Increases	3.25%

Measurements as of the June 30, 2022 are based on the fair value of assets as of June 30, 2022 and the total pension liability as of the valuation date, June 30, 2021, updated to June 30, 2022. There were no significant events between the valuation date and the measurement date. The update only included the addition of interest cost, offset by actual benefit payments. There are no active members of the plan, and thus no service cost.

Mortality rates for healthy lives were based on the CalPERS Healthy Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. Mortality rates for disabled lives were based on the CalPERS Industrial Disability Mortality Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. The mortality tables are projected to improve with MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

The total pension liability as of June 30, 2021 was determined based on an actuarial valuation as of June 30, 2020, updated to June 30, 2021, using the entry age normal actuarial cost method and the actuarial assumptions as described above for the June 30, 2021 valuation, except for the assumed investment rate of return was 5.29%. Measurements as of June 30, 2021 are based on the fair value of assets as of June 30, 2021 and the total pension liability as of the valuation date, June 30, 2020, updated to June 30, 2021.

The actuarial assumptions used in the June 30, 2021 and 2020 valuations were based on the results of actuarial experience studies for the period of July 1, 2014 through June 30, 2017.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major class included in the pension plan's target asset allocation as of June 30, 2022 and 2021 are summarized in the following table:

	Long-Term Expected Real Rate of Return	
Asset Class	**June 30, 2021**	**June 30, 2020**
Fixed Income	0.20%	(0.30)%
Domestic Equity	4.60	4.70
International Equity	5.50	5.00
Covered Calls	3.58	2.60
Crisis Risk Offset	1.83	1.95
Credit	2.30	2.10
Cash	(0.50)	(1.00)

b) Discount Rate

The discount rates used to measure the total pension liability were 5.19% and 5.29% as of June 30, 2022 and 2021, respectively. The projection of cash flows used to determine the discount rate assumed that the City would contribute to the Plan based on its July 1, 2012 funding agreement with the System. This agreement suspended City contributions until the fiscal year beginning July 1, 2017, after which they would resume, based upon the recommendation of the actuary, with a City Charter requirement that the Plan's liabilities be fully funded by July 1, 2026. A cash flow projection showed that the projected fiduciary net position would be greater than or equal to the benefit payments projected for each future period. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Notes to the Basic Financial Statements
For Years Ended June 30, 2022 and 2021

c) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City, calculated using the discount rate, as well as what the Plan's net pension liability would be if it were calculated using a discount rate of 1-percentage-point lower or 1-percentage-point higher than the discount rate.

City's Net Pension Liability June 30, 2022			
	1% Decrease (4.19%)	Current Discount Rate (5.19%)	1% increase (6.19%)
City's net pension liability	$199,655,233	$151,799,953	$110,388,515

City's Net Pension Liability June 30, 2021			
	1% Decrease (4.29%)	Current Discount Rate (5.29%)	1% increase (6.29%)
City's net pension liability	$171,086,474	$120,046,315	$76,004,962

6. Reserves

Retired Member Contribution Reserve represents the total accumulated transfers from active member contributions and investments, less payments to retired members and beneficiaries.

Employer Reserve represents the total accumulated employer contributions for retirement payments. Additions include contributions from the employer, investment earnings and other income; deductions include payments to retired members and beneficiaries and administrative expenses.

The aggregate total of the System's major reserves as of June 30, 2022 and 2021 equals net position restricted for pensions and comprises the following:

Aggregate Total of the System's Major Reserves		
	2021	**2021**
Retired member contribution reserve	$ 24,543,634	$ 26,828,201
Employer reserve	376,943,827	431,704,674
Total	$ 401,487,461	$ 458,532,875

7. Administrative Expenses

The City provides the System with accounting and other administrative services. Staff salaries included in administrative expenses for the years ended June 30, 2022 and 2021 were $1,250,884 and $1,388,825, respectively.

Required Supplementary Information

For Years Ended June 30, 2022 and 2021

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios (Unaudited)

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Interest (includes interest on service cost	$ 33,193,734	$ 34,680,418	$ 36,078,037	$ 37,621,301	$ 44,320,094	$ 44,931,829	$ 42,480,394	$ 41,262,826	$ 42,333,496
Differences between expected and actual experience	(7,035,509)	(7,375,711)	(5,699,459)	(7,915,210)	(10,656,139)	3,027,944	6,977,470	(21,208,627)	-
Changes of assumptions	-	-	-	(1,475,030)	17,858,013	-	43,480,232	34,219,433	-
Benefit payments, including refunds of member contributions	(51,450,001)	(51,697,378)	(54,619,079)	(56,212,013)	(55,998,595)	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Net change in total pension liability	(25,291,776)	(24,392,671)	(24,240,501)	(27,980,952)	(4,476,627)	(9,416,042)	34,496,743	(4,733,904)	(15,075,617)
Total pension liability – beginning	578,579,190	603,971,861	628,212,362	656,193,314	660,669,941	670,085,983	635,589,240	640,323,144	655,398,761
Total pension liability – ending (a)	$553,287,414	$579,579,190	$603,971,861	$628,212,362	$656,193,314	$660,669,941	$670,085,983	$635,589,240	$640,323,144
Plan Fiduciary Net Position									
Contributions - employer	$ 43,820,000	$ 43,448,000	$ 43,409,000	$ 44,821,000	$ 44,860,000	$ -	$ -	$ -	$ 4,441
Net investment income	(47,954,760)	90,191,309	6,996,833	21,557,961	35,446,275	50,158,795	(1,418,645)	5,438,586	66,392,409
Benefit payments, including refunds of member contributions	(51,450,001)	(52,697,378)	(54,619,079)	(56,212,013)	(55,998,595)	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Administrative expense	(1,460,653)	(1,584,654)	(1,522,910)	(1,446,361)	(1,543,412)	(1,261,641)	(1,375,749)	(985,227)	(776,112)
Claims and settlements	-	908	132	13,856	9,145	70,282	3,593,096	-	-
Net change in plan fiduciary net position	(57,045,414)	79,358,185	(5,736,024)	8,734,443	22,773,413	(8,408,379)	(57,642,651)	(44,554,177)	8,211,625
Plan fiduciary net position – beginning	458,532,875	378,974,690	384,710,714	375,976,271	353,202,858	361,611,237	419,253,888	463,808,065	455,596,440
Plan fiduciary net position – ending (b)	$401,487,461	$458,332,875	$378,974,690	$384,710,714	$375,976,271	$353,202,858	$361,611,237	$419,253,888	$463,808,065
City's net pension liability – ending (a) – (b)	$151,799,953	$120,046,315	$224,997,171	$243,501,648	$280,217,043	$307,467,083	$308,474,746	$216,335,352	$176,515,079
Plan fiduciary net position as a percentage of the total pension liability	73%	79%	63%	61%	57%	53%	54%	66%	72%
Covered payroll	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net pension liability as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: This is a 10-year schedule. Information for additional years will be presented when available.

Required Supplementary Information

For Years Ended June 30, 2022 and 2021

Schedule of Employer Contributions (Unaudited) (dollars in millions)

	2022	2021	2020	2019	2018	2017*	2016*	2015*	2014*	2013**
Actuarially determined contribution	$ 43.8	$ 43.6	$ 43.4	$ 44.8	$ 44.9	N/A	N/A	N/A	$ 20.3	$ 34.2
Contributions in relation to the actuarially determined contribution	$ 43.8	$ 43.6	$ 43.4	$ 44.8	$ 44.9	$ -	$ -	$ -	$ -	$ 210.0
Contribution deficiency/(excess)	$ -	$ -	$ -	$ -	$ -	N/A	N/A	N/A	$ 20.3	$(175.8)
Covered payroll	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 0.1
Contributions as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	210000%

* Actuarially determined contributions are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year. Although actuarial valuations were performed as of June 30, 2014, June 30, 2015, and June 30, 2016, the System did not determine an actuarially determined contribution for FY 2015-2017, based on the City's funding policy.

** In July 2012, the City of Oakland contributed $210 million in Pension Obligation Bond (POB) proceeds to the Plan.

Schedule of Investment Returns (Unaudited)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Annual money-weighted rate of return net of investment expense	-10.24%	24.43%	2.04%	6.10%	10.57%	15.57%	-0.75%	3.90%	16.40%	9.70%

Note to Required Supplementary Information

For Years Ended June 30, 2022 and 2021

Note to Schedule of Employer Contributions

Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year in which contributions are reported. Methods and assumptions used to determine contribution rates are:

Methods and Assumptions Used to Determine Contribution Rates

Fiscal Year	Valuation Date	Discount Rate	Cost-of-Living Adjustments	Mortality	Other Significant Assumption Changes from Prior Year
2022	6/30/2020	5.19%	3.25%	CalPERS Mortality Table from the 2012-2015 experience study, excluding the 15-year projection using 90% of Scale MP-2016	None
2021	6/30/2019	5.50%	3.25%		None
2020	6/30/2018	5.50%	3.25%		Longevity Pay assumption for Fire Members was added
2019	6/30/2017	5.50%	3.25%		None
2018	6/30/2016	6.44%	3.25%		None
2017	6/30/2015	6.50%	3.25%	CalPERS Mortality Table from the 2006-2011 experience study, excluding the 20-year projection using Scale BB	None
2016	6/30/2014	6.54%	3.25%		None
2015	6/30/2013	6.75%	3.975%	RP-2000 Mortality Table from the 1997-2007 experience study, projected with Scale AA	None
2014	6/30/2012	6.75%	3.975%		None
2013	6/30/2011	6.75%	3.975%		None
2012	6/30/2010	7.00%	4.50%	RP-2000 Mortality Table from the 1997-2007 experience study	None

A complete description of the methods and assumptions used to determine contribution rates can be found in the corresponding actuarial valuation reports.

SECTION 3
INVESTMENT

Frank O. Morris

Lieutenant

Served with Oakland Police Department
April 1962 to October 1983

this page intentionally left blank

MEKETA
INVESTMENT GROUP

2175 NW Raleigh Street
Suite 300A
Portland, OR 97210

503.226.1050
Meketa.com

December 31, 2022

Retirement Board
City of Oakland Police and Fire Retirement System
150 Frank Ogawa Plaza, Suite: 3332
Oakland, CA 94612

Dear Board Members:

This letter reviews the investment performance of the City of Oakland Police and Fire Retirement System ("the System" or "OPFRS") for the fiscal year ended June 30, 2022. During this 12-month period, the OPFRS total investment portfolio decreased -10.0% on a money-weighted, net of fees basis, while outperforming the Policy Benchmark's time-weighted return of -11.9%. The System has been effective in using its resources in a cost-effective manner to ensure that benefits continue to flow to plan participants.

Meketa serves as OPFRS' independent investment consultant. Performance data is provided by the System's custodian, Northern Trust, and is independently calculated by Meketa's performance measurement team.

A major factor influencing overall investment performance is the allocation of the OPFRS portfolio across major asset classes. As of June 30, 2022, the Covered Calls and Cash were overweight, while Fixed Income was moderately underweight relative to policy.

Over the latest 3-year period, the OPFRS portfolio produced an annualized money-weighted, net of fee return of 4.5%, outperforming its benchmark's time-weighted return of 4.1% by 40 basis points. Over the latest 5-year period, OPFRS' average annual money-weighted net return of 5.7% outperformed the Policy Benchmark by 30 basis points.

OPFRS Annualized Money-Weighted Returns As of 06/30/2022

	1 Year	3 Year	5 Year
Total Portfolio[1]	-10.0	4.5	5.7
Policy Benchmark[2]	*-11.9*	*4.1*	*5.4*
Excess Return	**1.9**	**0.4**	**0.3**

Sincerely,

David Sancewich, Managing Principal, Meketa Investment Group

[1] Money-weighted & net of fees. Performance since 2005 includes securities lending.

[2] Evolving Policy Benchmark is time-weighted and consists of 48% Russell 3000, 12% MSCI ACWI ex USA, 20% Bbg US Universal, 20% CBOE BXM through 12/2018; 40% Russell 3000, 12% MSCI ACWI ex USA, 33% Bbg US Universal, 5% CBOE BXM, 6.7% SG Multi Alt Risk Premia, 3.3% Bbg US Treasury Long from 01/2019 through 05/2022; and 40% Russell 3000, 12% MSCI ACWI ex USA, 31% Bbg US Universal, 5% CBOE BXM, 10% SG Multi Alt Risk Premia, 2% Bbg US High Yield thereafter.

BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO

List of Investment Professionals

Domestic Equity Managers
- Brown Advisory
- Earnest Partners
- Northern Trust Investments
- Rice Hall James and Associates
- Wellington Management

International Equity Managers
- Strategic Global Advisors

Covered Calls
- Parametric Portfolio Associates

Crisis Risk Offset
- Kepos Capital
- Versor Investments

Fixed Income Managers
- Polen Capital Credit
- Ramirez Asset Management
- Reams Asset Management
- Wellington Management

Investment Consultant
- Meketa Investment Group

Custodian
- Northern Trust

Security Lending
- Northern Trust

Investment Manager Fees and Other Investment Expenses

Years Ended June 30, 2022 and June 30, 2021

	2022	2021
Investment Manager Fees		
Domestic Equity Managers	$ 595,488	$ 508,064
International Equity Managers	261,104	251,072
Domestic Fixed Income Managers	276,287	259,176
Covered Calls	126,276	119,828
Total Investment Manager Fees	**$ 1,259,155**	**$ 1,138,140**
Other Investment Fees		
Investment Consulting	$ 100,000	$ 100,000
Custodian Fees	116,500	116,500
Total Other Investment Fees	**$ 216,500**	**$ 216,500**
Total Investment Fees	**$ 1,475,655**	**$ 1,354,640**

Largest Stock Holdings (by Fair Value)
As of June 30, 2022

	Stock	Fair Value
1.	Apple	$ 2,033,847
2.	Microsoft	1,858,422
3.	Republic Services	1,347,176
4.	Coterra Energy	1,287,102
5.	Progressive	1,139,562
6.	Keysight Technologies	1,066,270
7.	CBRE	1,039,741
8.	Albemarle	992,028
9.	D.R. Horton	976,898
10.	Masco	967,877

Note: The above schedules do not reflect holdings in index funds. A complete list is available upon request.

Largest Bond Holdings (by Fair Value)
As of June 30, 2022

	Description	Interest Rate	Maturity Date	Fair Value
1.	U.S. Treasury	2.88%	08/15/2028	$ 5,097,112.50
2.	U.S. Treasury	2.75%	05/15/2025	4,366,312.50
3.	U.S. Treasury	0.88%	09/30/2026	2,803,773.44
4.	U.S. Treasury	1.63%	04/30/2023	2,440,061.13
5.	U.S. Treasury	2.38%	05/15/2051	2,110,449.23
6.	U.S. Treasury	1.75%	01/31/2029	1,567,386.72
7.	Federal National Mortgage Association	2.50%	07/25/2052	1,389,172.27
8.	U.S. Treasury	2.38%	05/15/2027	1,219,739.07
9.	U.S. Treasury	2.00%	08/15/2051	1,167,005.86
10.	North Shore Long Island Jewish Health Care	6.15%	11/01/2043	1,165,588.86

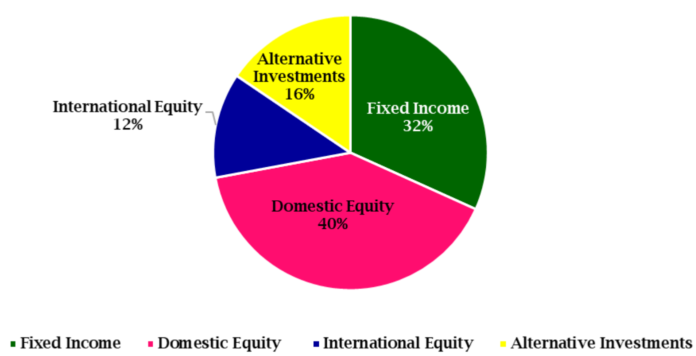
Note: The above schedules do not reflect holdings in index funds. A complete list is available upon request.

Investments by Manager/Exchange-Traded Funds (ETF)

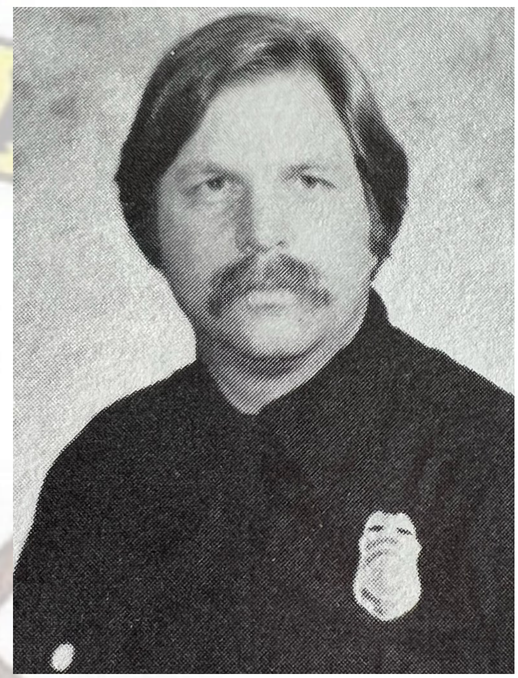
Investment Firm	Portfolio Type	Amount
Fixed Income Managers		
Reams Asset Management	Core Plus	$ 30,371,284
Ramirez Asset Management	Core	70,378,598
Vanguard Long-Term Treasury Index Fund ETF	Long Duration	10,950,584
Wellington Management	Core	6,741,756
DDJ Capital Management	High Yield/ Bank Loans	8,503,602
Total Fixed Income		**$ 126,945,824**
Domestic Equity Managers		
Northern Trust Investments	Large Cap Core	$ 73,995,521
Earnest Partners	Mid Cap Core	42,840,233
Rice Hall James and Associates	Small Cap Growth	13,425,905
Brown Advisory	Small Cap Value	9,922,899
Wellington Management	Defensive Equity	20,739,219
Transition Account	Short-Term	473,371
Total Domestic Equity		**$ 161,397,148**
International Equity Managers		
Strategic Global Advisors	International	$ 34,539,908
Vanguard Developed Markets Index Fund ETF	International	14,974,751
Total International Equity		**$ 49,514,659**
Alternative Managers		
Parametric Portfolio Associates	Covered Calls	$ 36,405,984
Kepos Capital	Crisis Risk Offset	9,894,309
Versor Investments	Crisis Risk Offset	$ 15,841,052
Total Alternative Investments		**62,141,345**
Total Investments		**$ 399,998,976**

The amounts presented above may vary from the amounts presented in the financial statements due to the investments by manager summary including cash and cash equivalents and presenting amounts at the manager level and the financial statements presenting amounts at the security level.

Asset Allocation
As of June 30, 2022



SECTION 4
ACTUARIAL



Lloyd E. Salsbery

Engineer

Served with Oakland Fire Department

December 1972 to June 2000

this page intentionally left blank

Actuary's Certification Letter

CHEIRON Classic Values, Innovative Advice

Via Electronic Mail

February 17, 2023

Actuarial Certification

This is the Actuary's Certification Letter for the Actuarial Section of the Annual Report for the Oakland Police and Fire Retirement System (PFRS, the Plan) as of June 30, 2022. This letter includes references to two documents produced by Cheiron for the Plan: the Actuarial Valuation report as of June 30, 2021 (transmitted January 13, 2022) and the GASB 67/68 report as of June 30, 2022 (transmitted November 3, 2022).

Actuarial Valuation Report as of June 30, 2021

The purpose of the annual actuarial valuation report as of June 30, 2021 is to determine the actuarial funding status of the Plan on that date and to calculate an actuarially determined contribution amount in accordance with the Plan's funding agreement with the City of Oakland. The prior review was conducted by Cheiron as of June 30, 2020.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution amount provides for current cost (normal cost and expected administrative expenses) plus an amount to amortize the Unfunded Actuarial Liability (UAL). All members of the Plan have retired; therefore, no normal cost has been computed, and the actuarially determined contributions are equal to the unfunded liability amortization payment plus administrative expenses.

As part of the funding agreement with the City, the UAL is expected to be amortized as level percentage of overall City Safety payroll, with payments commencing in the fiscal year beginning July 1, 2017, and completed in the year ending June 30, 2026.

For actuarial valuation purposes, Plan assets are valued at actuarial value. Under this method, the Actuarial Value of Assets recognizes one-fifth of the difference between the expected asset value (based on the 6.00% return assumption for the current Plan year) and the actual market value each year. The actuarial value is restricted to fall between 90% and 110% of the market value.

The Retirement System Board is responsible for establishing and maintaining the funding policy of the Plan.

We prepared the following schedules, which we understand will be used in the Actuarial Section of the 2022 PFRS Annual Report, based on the June 30, 2021 actuarial valuation. All historical information prior to the June 30, 2013 actuarial valuation shown in these schedules is based on information reported by Bartel Associates, who served as the actuary prior to 2013.

www.cheiron.us 1.877.CHEIRON (243.4766)

Actuarial Certification
February 17, 2023
Page 2

- Statement of Actuarial Assumptions and Methods
- Summary of Participant Data
- Development of Actuarial Gain/Loss (Analysis of Financial Experience)
- Schedule of Funding Status
- Summary of Plan Provisions

The assumptions used in this report reflect the results of an experience study performed by Cheiron covering the period from July 1, 2014 through June 30, 2017 and adopted by the Board. The assumptions used are intended to produce results that, in aggregate, reasonably approximate the anticipated future experience of the Plan.

We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet the requirements of the Actuarial Standards of Practice, in particular Standards No. 4, 27, 35, and 44.

GASB 67/68 Report as of June 30, 2022

The purpose of the GASB 67/68 report as of June 30, 2022 is to provide accounting and financial reporting information under GASB 67 for the Plan and under GASB 68 for the City of Oakland. This report is not appropriate for other purposes, including the measurement of funding requirements for the Plan.

For financial reporting purposes, the Total Pension Liability (TPL) is based on the June 30, 2021 actuarial valuation updated to the measurement date of June 30, 2022. The update included the addition of interest cost offset by actual benefit payments.

Beginning of year measurements are based on the actuarial valuation as of June 30, 2020, updated to the measurement date of June 30, 2021. The June 30, 2022 Total Pension Liability (TPL) presented in the GASB 67/68 report was based upon the same data, plan provisions, actuarial methods, and assumptions as were used in the actuarial valuation report as of June 30, 2021.

Please refer to our GASB 67 report as of June 30, 2022 for additional information related to the financial reporting of the System. We prepared the following schedules for inclusion in the Financial Section of the 2022 PFRS Annual Report based on the June 30, 2022 GASB 67/68 report:

- Change in Net Pension Liability
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Notes to the Schedule of Employer Contributions

CHEIRON

Actuarial Certification
February 17, 2023
Page 3

We certify that the letter was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for disclosure purposes have been prepared in accordance with our understanding of generally accepted accounting principles as promulgated by the GASB.

Disclaimers

In preparing our reports, we relied on information (some oral and some written) supplied by the Plan. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect our reports.

These reports are for the use of the Plan, the participating employer, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of these reports is not an intended user and is considered a third party.

Cheiron's reports were prepared solely for the Plan for the purposes described herein, except that the Plan and its auditors may rely on these reports solely for the purpose of completing an audit related to the matters herein. Other users of these reports are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. These reports do not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Respectfully Submitted,
Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary
703-893-1456, x1137
gschmidt@cheiron.us

Timothy S. Doyle, ASA, EA, MAAA
Consulting Actuary
703-893-1456, x1140
tdoyle@cheiron.us

CHEIRON

Summary of Actuarial Value, Assumptions and Funding Methods

PURPOSE OF ACTUARIAL VALUATION

The Oakland Police and Fire Retirement System (PFRS) is a closed defined benefit pension plan. It was closed to new members on June 30, 1976. As of June 30, 2022, there are no active members. All members are retirees and beneficiaries.

The actual costs of a defined benefit plan are determined entirely by the amount of the benefit promise, the actual salaries and service of the plan participants, and how long they and their beneficiaries live to receive payments. In addition, the actuarial methodology provides a reasonable plan, or method, towards funding the expected costs of the plan. This information assists the plan trustees so they can make informed decisions regarding plan investments and how much in contributions will be required from the employer to eventually fully pay for the plan's costs.

The most recent actuarial valuation was as of June 30, 2021. The key results of the actuarial valuation are as follows:

- The actuarially determined employer contribution amount for Fiscal Year 2022-2023 is $32.7 million, based on projecting the Actuarial Liabilities and the Actuarial Value of Assets to the end of the 2021-2022 Fiscal Year. This represents a decrease of $12.1 million from the estimated amount in the prior valuation for the same Fiscal Year. The contribution is assumed to be paid in equal installments throughout the year, or on average at approximately January 1, 2023.

- During the year ended June 30, 2021, the return on Plan assets was 24.14% on a market value basis net of investment expenses, as compared to the 6.00% assumption for the 2020-2021 Plan year. This resulted in a market value gain on investments of $67.8 million. The Actuarial Value of Assets (AVA) is calculated as the expected AVA plus 20% of the difference between the market value and the expected AVA, which is restricted to be between 90% and 110% of the MVA. This smoothed value of assets returned 14.16%, for an actuarial asset gain of $29.9 million. Without the 10% corridor, the actuarial asset gain would have been $15.1 million.

- The Plan experienced a gain on the Actuarial Liability of $6.6 million, the net result of changes in the population and changes in benefits. The primary factor was an excess of deaths above the number expected. Combining the liability and asset gains, the Plan experienced a total gain of $36.5 million.

- The Plan's smoothed funded ratio, the ratio of Actuarial Value of Assets over Actuarial Liability, increased from 62.2% last year to 72.2% as of June 30, 2021.

- The Plan's funded ratio increased from 63.5% to 80.2% on a Market Value of Assets (MVA) basis.

- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Actuarial Value of Assets. The Plan experienced a decrease in the UAL from $225.5 million to $159.3 million as of July 1, 2021.

- Overall participant membership decreased compared to last year. 29 members died, 12 of whom had their benefits continue to a surviving spouse. In addition, 28 surviving beneficiaries died. There are no active members of the Plan.

- If the contribution were determined using a projected asset value based on the current market (i.e., non-smoothed) value of assets, the contribution for FY 2022-2023 would be $22.3 million. The contribution is smaller than that determined using the projected AVA, because the current market value reflects the full amount of prior investment gains, while under the AVA projection a portion of those gains are deferred until years after FY 2022-2023 .

VALUATION SUMMARY

Table I-1 summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

Table I-1
Summary of Principal Plan Results
($ in Thousands)

	July 1, 2020	July 1, 2021	% Change
Participant_Counts			
Active Participants	0	0	
Participants Receiving a Benefit	768	723	-5.9%
Total	**768**	**723**	**-5.9%**
Annual Pay of Active Members	$ 0	$ 0	
Assets and Liabilities			
Actuarial Liability (AL)	$ 597,014	$ 571,942	-4.2%
Actuarial Value of Assets (AVA)	$ 371,467	$ 412,680	11.1%
Unfunded Actuarial Liability (UAL)	$ 225,547	$ 159,262	-29.4%
Funded Ratio (AVA)	62.2 %	72.2 %	9.9%
Funded Ratio (MVA)	63.5%	80.2%	16.7%
Contributions			
Employer Contribution (FY2021-22)	$ 43,820	N/A	
Employer Contribution (FY2022-23)	$ 44,828	$ 32,712	-27.0%

ACTUARIAL DEFINITIONS

The **Present Value of Future Benefits** (PVFB) is used for measuring all future Plan obligations, the obligations of the Plan earned as of the valuation date and those to be earned in the future by current plan participants under the current Plan provisions, if all assumptions are met.

The **Actuarial Liability** (AL) is used for funding calculations, this liability is calculated taking the Present Value of Future Benefits and subtracting the Present Value of Future Normal Costs under an acceptable actuarial funding method. Because the Plan has no active members, the Actuarial Liability is equal to the Present Value of Future Benefits (i.e., all benefits are fully accrued).

The **Unfunded Actuarial Liability** (UAL) is the excess of the Actuarial Liability over the Actuarial Value of Assets.

The **Actuarial Value of Assets** (AVA) is the value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

ACTUARIAL METHODS AND ASSUMPTIONS

ACTUARIAL METHODS

The actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the Entry Age Normal Cost Method.

The normal cost rate is determined with the normal cost percentage equal to the total Projected Value of Benefits at Entry Age, divided by Present Value of Future Salary at Entry Age. Since there are no longer any active employees, the normal cost for this plan is $0.

The excess of the Plan's Actuarial Liability (AL) over the Actuarial Value of Assets (AVA) is the Unfunded Actuarial Liability (UAL). In accordance with the Plan's funding agreement with the City of Oakland, the UAL must be amortized by July 1, 2026, with contributions resuming in the 2017-2018 fiscal year. The projected fiscal year 2021-2022 contribution has been calculated using level percent of pay amortization, based on total projected City payroll for all Safety employees.

ACTUARIAL VALUE OF PLAN ASSETS

In determining the recommended employer contribution to the PFRS, we use a smoothed Actuarial Value of Assets. The asset smoothing method dampens the volatility in asset values that could occur because of the fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process. Assets are assumed to be used exclusively for the provision of retirement benefits and expenses.

ACTUARIAL ASSUMPTIONS

The assumptions used in this report reflect the results of an Experience Study performed by Cheiron covering the period from July 1, 2014 through June 30, 2017 and adopted by the Board. More details on the rationale for the demographic and economic assumptions can be found in the Experience Analysis presented to the Board on February 28, 2018.

Rate of Return

The expected annual rates of return, net of investment expenses, on all Plan assets are shown in the table below. The equivalent single discount rate for these returns using the Plan's expected projected benefit payments is 5.28%.

Benefit Payment Year	Expected Return
2021 - 2026	6.000 %
2027	5.725 %
2028	5.450 %
2029	5.175 %
2030	4.900 %
2031	4.625 %
2032	4.350 %
2033	4.075 %
2034	3.800 %
2035	3.525 %
2036+	3.250 %

Cost of Living Adjustments and Long-Term Salary Increases

Cost-of-living adjustments are based on salary increases for a retiree's rank at retirement.

The long-term rate of salary increase is assumed to be 3.25% (2.85% inflation plus 0.4% productivity). The following schedule shows salary increases based on the current Police contract which expires on June 30, 2023, and the Fire contract which expires on December 31, 2023. All increases shown after those dates are assumptions.

Post-Retirement Benefit Increases (Based on Salary Increases for Rank at Retirement)		
Date of Increase	**Police**	**Fire**
July 1, 2021	3.00%	1.50%
January 1, 2022	N/A	2.00%
July 1, 2022	3.50%	1.00%
July 1, 2023	3.50%	0.00%
December 1, 2023	N/A	2.00%
Annual Increases Starting July 1, 2024	3.25%	3.25%

Inflation

The assumed rate of general inflation is 2.75% (entire US) and local inflation is 2.85% (Bay Area). The general inflation rate is used in the determination of the investment return assumptions. The local inflation rate is used in the determination of the growth in expenses and salaries (which determine the COLA increases).

Rates of Termination, Disability and Retirement

None

Rates of Mortality for Healthy Lives

(for service retirees and beneficiaries)

CalPERS Healthy Annuitant Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016.

Rates of Mortality for Disabled Retirees

CalPERS Industrial Disability Mortality Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016.

Mortality Improvement

The mortality tables are projected to improve with the MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

Survivor Continuance

30% of disabled retirees' deaths are assumed to be related to injuries arising out of the performance of duty, entitling the surviving spouse to a 100% continuance.

Changes in Assumptions since the Last Valuation

No changes were made to the actuarial assumptions.

Administrative Expenses

Administrative expenses for the Fiscal Year Ended June 30, 2022 are assumed to be $1,692,500 , growing at 2.85% per year.

Membership Information

Service Retired Participants

Age	Police		Fire		Total	
	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	$0	0	$0	0	$0
50-54	0	$0	0	$0	0	$0
55-59	0	$0	0	$0	0	$0
60-64	0	$0	0	$0	0	$0
65-69	14	$1,079,118	0	$0	14	$1,079,118
70-74	61	$5,242,761	17	$1,238,231	78	$6,480,992
75-79	91	$6,963,191	32	$2,724,679	123	$9,687,870
80-84	34	$2,688,651	12	$1,057,125	46	$3,745,776
85-89	9	$955,482	13	$1,153,800	22	$2,109,282
90-94	8	$665,829	11	$990,570	19	$1,656,399
95-99	2	$213,433	5	$434,021	7	$647,454
100+	1	$99,129	0	$0	1	$99,129
Total	**220**	**$17,907,594**	**90**	**$7,598,426**	**310**	**$25,506,020**

Disability Retired Participants

Age	Police		Fire		Total	
	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	$0	0	$0	0	$0
50-54	0	$0	0	$0	0	$0
55-59	0	$0	0	$0	0	$0
60-64	0	$0	0	$0	0	$0
65-69	0	$0	3	$245,477	3	$245,477
70-74	43	$3,358,268	26	$1,843,805	69	$5,202,073
75-79	27	$1,971,071	34	$2,697,441	61	$4,668,512
80-84	11	$876,714	18	$1,523,229	29	$2,399,943
85-89	5	$393,996	7	$585,972	12	$979,967
90-94	2	$192,181	3	$271,703	5	$463,884
95-99	0	$0	1	$67,653	1	$67,653
100+	0	$0	0	$0	0	$0
Total	**88**	**$6,792,229**	**92**	**$7,235,279**	**180**	**$14,027,508**

Membership Information

Beneficiaries

Age	Police		Fire		Total	
	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	$0	0	$0	0	$0
50–54	0	$0	0	$0	0	$0
55–59	1	$52,095	0	$0	1	$52,095
60–64	3	$175,604	2	$148,362	5	$323,966
65–69	9	$576,640	7	$446,609	16	$1,023,248
70–74	30	$1,542,683	14	$852,980	44	$2,395,663
75–79	32	$1,701,659	18	$1,073,595	50	$2,775,254
80–84	15	$797,091	16	$917,976	31	$1,715,067
85–89	16	$1,026,060	21	$1,216,295	37	$2,242,356
90–94	17	$1,022,988	18	$967,371	35	$1,990,359
95–99	7	$359,375	6	$366,607	13	$725,981
100+	1	$80,379	0	0	1	$80,379
Total	**131**	**$7,334,574**	**102**	**$5,989,793**	**233**	**$13,324,367**

Membership Information

Participant Data Summary

	July 1, 2020			July 1, 2021		
	Police	Fire	Total	Police	Fire	Total
Active Participants						
Number	0	0	0	0	0	0
Number Vested	0	0	0	0	0	0
Average Age	00.0	00.0	00.0	00.0	00.0	00.0
Average Service	00.0	00.0	00.0	00.0	00.0	00.0
Average Pay	$0	$0	$0	$0	$0	$0
Service Retirees						
Number	229	95	324	220	90	310
Average Age	76.6	81.5	78.1	77.5	81.8	78.7
Average Annual Benefit	$78,850	$81,876	$79,737	$81,398	$84,427	$82,277
Disabled Retirees						
Number	99	96	195	88	92	180
Average Age	75.9	77.1	76.5	76.7	78.0	77.4
Average Annual Benefit	$74,864	$75,923	$75,385	$77,184	$78,644	$77,931
Beneficiaries						
Number	132	117	249	131	102	233
Average Age	80.5	83.1	81.7	80.2	82.7	81.3
Average Annual Benefit	$55,725	$56,194	$55,946	$55,989	$58,723	$57,186
All Inactive						
Number	460	308	768	439	284	723
Average Age	77.6	80.8	78.8	78.1	80.9	79.2
Average Annual Benefit	$71,356	$70,265	$70,919	$72,971	$73,322	$73,109

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator.

In Memoriam

this page intentionally left blank

Oakland Police and Fire Department Retiree & Beneficiary Deaths Fiscal Year 2021—2022

Fire Members

Geraldine Brazil	Beneficiary
Shirley Brown	Beneficiary
Evelyn Byrne	Beneficiary
Jean Christian	Beneficiary
Gertrude Davis	Beneficiary
Jeffrey Davis	Retiree
John Fahey	Retiree
Ronald Graham	Retiree
Mary Healey	Beneficiary
James Hayworth	Retiree
Jayne M. Kersch	Beneficiary
Norman Kotler	Retiree
David Lindsay	Retiree
Barbara Marchant	Beneficiary
William Moore	Retiree
Roy Nason	Retiree
Walter Pierson	Retiree
Beverly Risch	Beneficiary
Willard Rodman	Retiree
Richard Schuller	Retiree
Herbert Soares	Retiree
Paul Taylor	Retiree
James Wiley	Retiree
Don Williams	Retiree

Police Members

June T. Aboussleman	Beneficiary
William Boyd	Retiree
Barbara Davis	Beneficiary
William Foskett	Retiree
Hazel Gaudinier	Beneficiary
Bernard Gerhard	Retiree
Ronald Gunar	Retiree
Jerry Jahn	Retiree
James Mahanay	Retiree
Edward Marquez	Retiree
Larry Newman	Retiree
Renate C. Owen	Beneficiary
Bette Peters	Beneficiary
Waller Prentice	Retiree
Sarah Robinson	Beneficiary
George Rothacher	Retiree
Virginia Schwab	Beneficiary
Judith Terracina	Beneficiary
Hadwick Thompson	Retiree
Robert Thorp	Retiree
David Whiteman	Retiree
Louise Williams	Beneficiary
Marvin Young	Retiree

this page intentionally left blank