



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 - 11th Street, Oakland, CA 94607


Office of the Secretary: (510) 287-0440

Notice of Time Change

**FINANCE/ADMINISTRATION
COMMITTEE MEETING
Tuesday, October 23, 2018
9:45 a.m.**

Notice is hereby given that the Finance/Administration Committee Meeting of the Board of Directors for Tuesday, October 23, 2018 has been rescheduled from 10:00 a.m. to 9:45 a.m. The meeting will be held in the Training Resource Center of the Administration Building, 375 - 11th Street, Oakland, California.

Dated: October 18, 2018



Rischa S. Cole
Secretary of the District



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 – 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

**AGENDA
Finance/Administration Committee
Tuesday, October 23, 2018
9:45 a.m.
Training Resource Center**

(Committee Members: Directors Patterson {Chair}, Coleman and Mellon)

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DETERMINATION AND DISCUSSION:

1. Financial Review of Fiscal Year 2018 (Skoda)
2. Fiscal Year 2018 Key Performance Indicators Report (Skoda)
3. Proposed Fiscal Year 2019 Financing Plan (Skoda)
4. Extend Revolving Credit Agreement for Commercial Paper Notes (Water Series) Subseries A-2 (Skoda)
5. Monthly Investment Transactions Report (Skoda)
6. Quarterly Financial Reports (Skoda)
 - Quarterly Payroll, Disbursement and Real Estate Summary Reports for the Water and Wastewater Systems for Quarter Ended September 30, 2018
 - Quarterly Investment Report – September 30, 2018

ADJOURNMENT:

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this Agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours, and can be viewed on our website at www.ebmud.com.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

FROM: Alexander R. Coate, General Manager *ARC*

SUBJECT: Financial Review of Fiscal Year 2018

INTRODUCTION

Attached is the financial review of Fiscal Year 2018 for the period ending June 30, 2018, which will be discussed at the Finance/Administration Committee meeting on October 23, 2018. This report includes the basic financial statements, a memorandum on internal controls and required communication, the budget performance, and the financial indicators.

DISCUSSION

Details on the financials as well as the District's budgetary performance for the fiscal year are provided in this single report to enhance the usability, clarity and accessibility of financial information.

Basic Financial Statements

The annual financial audit for Fiscal Year 2018 has been completed by the District's external auditors, Maze & Associates, in accordance with Section 11889 of the Municipal Utility District (MUD) Act. The annual audited Basic Financial Statements prepared by District staff is attached. Also in accordance with the MUD Act, summary financial statements for the Water and Wastewater Systems were published in the East Bay Times (Oakland Tribune) on September 21 and 28, 2018. Once again the District has received an unqualified or "clean" opinion on its financial statements.

The District implemented Government Accounting Standards Board (GASB) Statement No. 75 – Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. GASB 75 requires disclosing District's Health Insurance Benefit (HIB) plan information in the body of the financial statement and in the associated footnotes similar to the pension information required under GASB 68 implemented in fiscal year ending June 30, 2015. GASB 75 is for financial reporting purposes only, and its changes are limited to the District's financial statements presentation. There is no impact to the financial performance of the District, nor does it affect the methods and assumptions for determining contribution amounts.

Memorandum on Internal Controls and Required Communication

The external auditors found no material weaknesses in District operations, irregularities in reporting, or need for significant audit adjustments.

Annual Budget Performance

Total Water System revenues of \$630.6 million were \$78.4 million greater than budget and operating expenses were less than budget by \$42.7 million, which eliminated the planned draw of \$26.0 million from the Rate Stabilization Fund. The primary revenue variances above budget were System Capacity Charges (SCC) and Water Charges. Higher SCC revenues were driven by the strong local development underway. Actual water consumption during the fiscal year was 8.9 percent greater than the prior fiscal year and higher than budget by 5.5 percent. As a result, Water Charges were \$26.0 million greater than budget. Of the total revenues above budget, other sources totaling approximately \$9.9 million included Property Taxes, Power Sales and All Other.

Total Wastewater System revenues of \$141.8 million were \$14.7 million greater than budget and operating expenses were less than budget by \$5.0 million. The primary revenue variances above budget were Capacity Charges and Resource Recovery. Of the total revenues, the largest source, Treatment Charges and Permit Fees were \$1.4 million greater than budget.

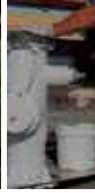
Financial Indicators

Water and Wastewater Systems' overall financial conditions remain sound. Both systems exceeded District Policy 4.02 target goals due to continuing actions taken last year to contain operating costs and maintain revenues required to cover reductions in consumption due to continuing impacts from the recent drought. As a result of these proactive actions and improving economic conditions, no funds had to be transferred from the Rate Stabilization Fund to aid the District in meeting its current financial indicators. All other indicators reflect stable conditions as compared to the prior year.

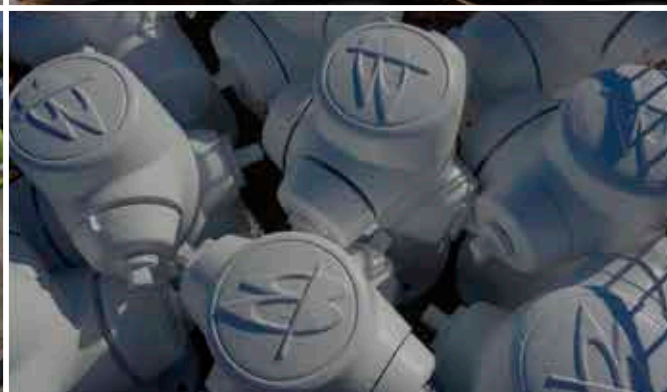
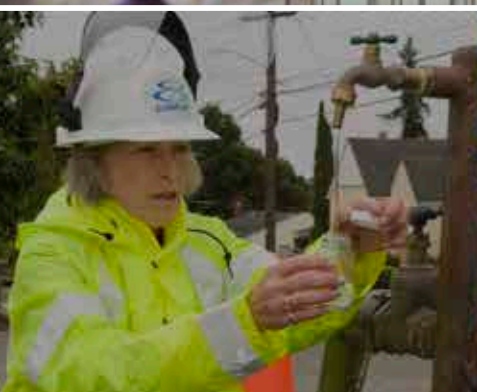
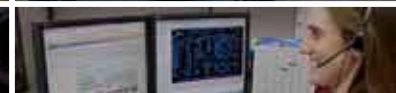
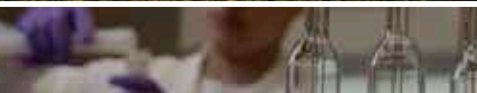
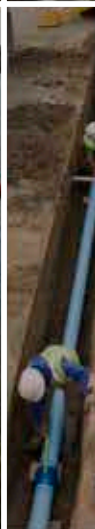
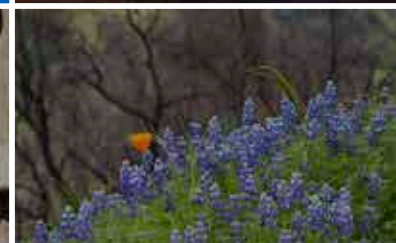
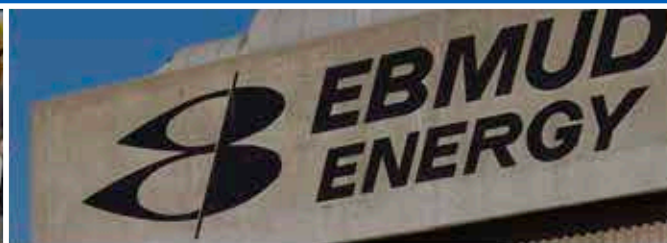
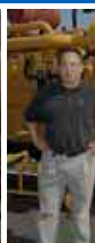
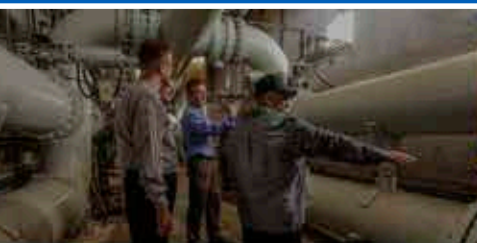
The attached report provides more detailed financial information for the year.

ARC:DSK:JC

Attachment



Fiscal Year 2018 Financial Review





FINANCIAL REVIEW OF FISCAL YEAR 2018

TABLE OF CONTENTS

Executive Summary	Page i
Basic Financial Statements	Page 1
Memorandum on Internal Controls and Required Communication	Page 107
Annual Budget Performance	
Overview	Page 121
Water System	Page 122
Wastewater System	Page 127
Grants and Loans	Page 132
Financial Indicators	
Summary of Financial Indicators	Page 137
Water System	Page 138
Wastewater System	Page 148
Retirement System	Page 158



FINANCIAL REVIEW OF FISCAL YEAR 2018

Executive Summary



FINANCIAL REVIEW OF FISCAL YEAR 2018

Executive Summary

Introduction

This annual report summarizes the Water and the Wastewater Systems' financial performance for Fiscal Year 2018. The scope of this report includes the financial statements, internal controls review, budgetary performance, and financial trends.

Summary

The Water and Wastewater Systems' overall financial condition continue to remain healthy with a stable revenue base and sound reserves. Debt service coverage for both enterprises was higher than projected. Rate Stabilization Funds for both enterprises remain unchanged compared to the prior fiscal year.

Discussion

Basic Financial Statements

The annual financial audit for FY18 has been completed by the District's external auditors, Maze & Associates, in accordance with Section 11889 of the MUD Act. The annual audited Basic Financial Statements prepared by District staff is attached. Also in accordance with the MUD Act, summary financial statements for the Water and Wastewater Systems' were published in the East Bay Times (Oakland Tribune) on September 21 and 28, 2018. Once again the District has received an unqualified or "clean" opinion on its financial statements.

The District implemented Government Accounting Standards Board (GASB) Statement No. 75 – Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. GASB 75 requires disclosing District's Health Insurance Benefit (HIB) plan information in the body of the financial statement and in the associated footnotes similar to the pension information required under GASB 68 implemented in fiscal year ending June 30, 2015. GASB 75 is for financial reporting purpose only and its changes are limited to the District's financial statements presentation. There is no impact to the financial performance of the District, nor does it affect the methods and assumptions for determining contribution amounts.

Balance Sheet

GASB No. 75-Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB) requires all agencies to report the unfunded net OPEB liability in the liability section. Water and Wastewater balance sheets remain sound by implementing GASB 75 for the first time in FY18. To comply with GASB 75, the District reported \$135 million in additional outstanding liabilities based on actuarially determined economic assumptions and implicit subsidy projections.

The District continues in compliance with GASB 68 and reported \$487 million in pension outstanding liabilities in FY18 down from \$604 million in FY17. The decrease reflects investment gains during FY17 because FY18 \$487 million balance is based on FY17 actuary information. The current year investment gains or losses, assumption rate and contributions are recorded in the pension related deferred inflows and outflows. The net combined pension and OPEB related liabilities over assets for FY18 are \$564 million and \$440 million for FY17.



FINANCIAL REVIEW OF FISCAL YEAR 2018

Net Position

Overall net position increased \$102 million due to the net investment in capital assets.

Capital Contributions

The District's capital contribution increased \$14 million due to a \$22 million increase in System Capacity Charge (SCC) and earned contributions on construction revenues due to the improving economy and housing market offset by an \$8 million reduction in grant monies received from prior period awards.

Operating Indicators

The Water and Wastewater indicators reflect a stable customer base, strong collection controls and reasonable rates.

Retirement

The District's net pension-funded percentage increased slightly from 69.78% in FY16 to 72.32% in FY17 due to increases in investment earnings.

Memorandum on Internal Controls and Required Communication

The external auditors found no material weaknesses in District operations, irregularities in reporting, or need for significant audit adjustments.

Annual Budget Performance

Water System

Total Water System revenues of \$630.6 million were \$78.4 million greater than budget and operating expenses were less than budget by \$42.7 million which eliminated the planned draw of \$26.0 million from the Rate Stabilization Fund. The primary revenue variances above budget were SCCs of \$42.3 million and Water Charges of \$26.0 million. Higher SCC revenues were driven by the strong local development underway. Actual water consumption during the fiscal year was 8.9 percent greater than the prior fiscal year and higher than budget by 5.5 percent. Of the total revenues above budget, other sources totaling approximately \$9.9 million included Property Taxes, Power Sales and All Other.

Wastewater System

Total Wastewater System revenues of \$141.8 million were \$14.7 million greater than budget and operating expenses were less than budget by \$5.0 million. The primary revenue variances above budget were Capacity Charges of \$9.9 million and Resource Recovery of \$3.8 million. Of the total revenues, the largest source, Treatment Charges and Permit Fees were \$1.4 million greater than budget.

Financial Indicators

Water and Wastewater systems' overall financial conditions remain sound. Both systems exceeded District Policy 4.02 target goals due to continuing actions taken last year to contain operating costs and maintain revenues required to cover reductions in consumption due to continuing impacts from the recent drought. As a result of these proactive actions and improving economic conditions, no funds had to be transferred from the Rate Stabilization Fund to aid the District in meeting its current financial indicators. All other indicators reflect stable conditions as compared to the prior year.



FINANCIAL REVIEW OF FISCAL YEAR 2018

Basic Financial Statements

EAST BAY MUNICIPAL UTILITY DISTRICT
BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017

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**EAST BAY MUNICIPAL UTILITY DISTRICT
BASIC FINANCIAL STATEMENTS
For the Years Ended June 30, 2018 and 2017**

Table of Contents

	<u>Page</u>
<i>Independent Auditor's Report</i>	1
<i>Management's Discussion and Analysis</i>	5
 <i>Basic Financial Statements</i>	
Balance Sheets.....	23
Statements of Revenues, Expenses and Changes in Net Position	25
Statements of Cash Flows	26
Statements of Fiduciary Net Position – Fiduciary Fund – Pension and Other Employee Benefit Trust (Component Unit)	28
Statements of Changes in Fiduciary Net Position – Fiduciary Fund – Pension and Other Employee Benefit Trust (Component Unit)	29
Notes to Basic Financial Statements	31
 <i>Required Supplemental Information</i>	
Employees' Retirement System Trust Fund:	
Schedule of Changes in Employer's Net Pension Liability – Pension Plan	95
Schedule of Employer's Net Pension Liability – Pension Plan	96
Schedule of Employer's Contributions – Pension Plan.....	96
Schedule of Investment Returns – Pension Plan	97
Schedule of Changes in Employer's Net OPEB Liability – Post-Employment Healthcare Plan	97
Schedule of Employer's Net OPEB Liability – Post-Employment Healthcare Plan	98
Schedule of Employer's Contributions – Post-Employment Healthcare Plan.....	98
Notes to Required Supplementary Information.....	99

**EAST BAY MUNICIPAL UTILITY DISTRICT
BASIC FINANCIAL STATEMENTS
For the Years Ended June 30, 2018 and 2017**

Table of Contents

	<u>Page</u>
<i>Supplemental Information</i>	
Employees' Retirement System Trust Fund:	
Combining Balance Sheet	103
Combining Statement of Changes in Net Position	104
<i>Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards</i>	105

INDEPENDENT AUDITOR'S REPORT

Board of Directors
East Bay Municipal Utility District
Oakland, California

Report on Financial Statements

We have audited the accompanying financial statements of each major fund and the discretely presented component unit, of the East Bay Municipal Utility District as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the Table of Contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the District's preparation and fair presentation of the financial statements 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 District's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial positions of each major fund and the discretely presented component unit of the East Bay Municipal Utility District as of June 30, 2018 and 2017, and the respective changes in the financial positions and where applicable, cash flows, thereof for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

Management adopted the provisions of the following Governmental Accounting Standards Board Statement, Statement No. 75 – *Accounting and Financial Reporting for Post-employment Benefit Plans Other than Pensions* which became effective during the year ended June 30, 2018, and required a restatement to the financial statement, as discussed in Note 1R of the financial statements.

This emphasis of matter does not constitute a modification to our opinions.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, other required supplementary information as listed in the Table of Contents, and certain schedules related to the Pension and Post Employment Healthcare Plans be presented to supplement the basic financial statements. Such information, 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

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements. The Supplemental Information as listed in the Table of Contents are presented for purposes of additional analysis and are not required parts of the basic financial statements.

The Supplemental Information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Supplemental Information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated August 27, 2018 on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

Maze + Associates

Pleasant Hill, California
August 27, 2018

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EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

This section presents management's analysis of the East Bay Municipal Utility District's (the District) financial condition and activities as of and for the year ended June 30, 2018. Management's Discussion and Analysis (MDA) is intended to serve as an introduction to the District's basic financial statements.

This information should be read in conjunction with the audited financial statements that follow this section. The District, as the primary governmental entity, includes within the financial statements, the financial position and activities of the District's Employees' Retirement System (Employees' Retirement System) as a component unit. The Employees' Retirement System issues its own financial statements and MDA under a separate cover. Significant matters pertaining to the Employees' Retirement System have been included in the notes to the financial statements as deemed appropriate.

The information in this MDA is presented under the following headings:

Organization and Business

Overview of the Basic Financial Statements

Financial Analysis

Capital Assets

Debt Administration

Request for Information

ORGANIZATION AND BUSINESS

The District provides water and wastewater services to industrial, commercial, residential, and public authority users. The Water System collects, transmits, treats, and distributes high quality water to approximately 60% (332 square miles) of the developed area within Alameda and Contra Costa counties of California and serves a population of about 1.4 million. The Wastewater System intercepts and treats wastewater from residences and industries within an 88-square-mile service area including the communities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District and serves a population of about 685,000. The District recovers cost of service primarily through user fees.

OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

The District's basic financial statements are comprised of two components: (1) Fund Financial Statements and (2) Notes to Basic Financial Statements. The report also contains other required supplementary information in addition to the basic financial statements.

Fund Financial Statements. A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The District, like other special purpose governments, uses fund accounting to ensure and demonstrate compliance with financial-related legal requirements.

Proprietary Funds. The District's proprietary funds consist of two enterprise funds, the Water System and the Wastewater System. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises – where the intent of the governing body is that the costs (including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

The District's proprietary fund statements include:

The *Balance Sheet* presents information on the District's assets and deferred outflows, and liabilities and deferred inflows, with the difference between the two reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the District is improving or deteriorating.

While the Balance Sheet provides information about the nature and amount of resources and obligations at year-end, the *Statement of Revenues, Expenses, and Changes in Net Position* presents the results of the District's operations over the course of the fiscal year and information as to how the net position changed during the year. This statement can be used as an indicator of the extent to which the District has successfully recovered its costs through user fees and other charges. All changes in net position are reported during the period in which the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in future fiscal periods, such as delayed collection of operating revenues and the expense of employee earned but unused vacation leave.

The *Statement of Cash Flows* presents changes in cash and cash equivalents resulting from operational, capital, noncapital, and investing activities. This statement summarizes the annual flow of cash receipts and cash payments, without consideration of the timing of the event giving rise to the obligation or receipt and excludes noncash accounting measures of depreciation or amortization of assets.

Fiduciary Fund. Fiduciary funds are used to account for resources held for the benefit of parties outside the government. The District's fiduciary fund consists of the Pension and Other Employee Benefit Trust fund, which is maintained to account for assets held by the Employees' Retirement System in a trustee capacity for vested and retired employees. The accounting used for fiduciary funds is much like that used for the proprietary funds.

Notes to Basic Financial Statements. The notes provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to basic financial statements can be found on pages 31 to 92 of this report.

Other Information. In addition to the basic financial statements and accompanying notes, this report also presents *certain required supplementary information* concerning the District's progress in funding its obligation to provide pension and other post-employment healthcare benefits to its employees. Such required supplementary information can be found on pages 95 to 100 of this report.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

FINANCIAL ANALYSIS

Financial Highlights

In fiscal year 2018, EBMUD continued to effectively manage its finances and strengthen its financial position by adopting sufficient water and wastewater rates to fund capital infrastructure improvements and to maintain strong financial performance. The District implemented Government Accounting Standards Board (GASB) Statement No. 75 - Accounting and Financial Reporting for Post-employment Benefits Other Than Pensions that created a \$108 million decrease of prior period adjustment in beginning net position. The following results of operations indicate a continuing strong and stable fiscal position.

The total assets and deferred outflows of the District exceeded the total liabilities and deferred inflows by \$1.6 billion (*net position*).

Net position increased by \$102 million or 7% during the fiscal year.

Capital assets increased by \$205 million or 4% to \$4.9 billion.

Operating revenue increased by \$65 million or 12% to \$599 million.

Operating expense remained stable at \$430 million.

Non-operating net expense increased by \$4 million or 7% to (\$58) million.

Capital contributions increased by \$14 million or 17% from the prior fiscal year.

Financial Position

In the current year, the District's total net position increased by \$102 million or 7% during the fiscal year. Without GASB 75 adjustment, the total net position increase would be \$210 million. The Water System's net position increased by \$82 million or 7% and the Wastewater System's net position increased by \$20 million or 7%. Current and other assets decreased by \$64 million or 7%. Capital assets increased by \$205 million or 4%. By far the largest portion of the District's net position, 92% or \$1.5 billion, represents its investment in capital assets necessary to provide services.

In the previous fiscal year, the District's total net position increased by \$136 million or 10% during the fiscal year. The Water System's net position increased by \$108 million or 10% and the Wastewater System's net position increased by \$28 million or 11%. Current and other assets increased by \$191 million or 25%. Capital assets increased by \$162 million or 4%. By far the largest portion of the District's net position, 79% or \$1.2 billion, represents its investment in capital assets necessary to provide services.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 1 shows the District's net position for the fiscal years ended June 30, 2018, 2017, and 2016:

Table 1
Net Position
Water and Wastewater
June 30, 2018 and 2017
(In thousands)

	2018	2017	Variance	%
Current and other assets	\$ 904,282	967,829	(63,547)	(7)%
Capital assets	4,855,907	4,651,237	204,670	4%
Deferred outflow of resources	169,099	230,903	(61,804)	(27)%
Total assets and deferred outflow	<u>5,929,288</u>	<u>5,849,969</u>	<u>79,319</u>	<u>1%</u>
Current and other liabilities	899,620	880,313	19,307	2%
Long-term liabilities	3,317,300	3,412,637	(95,337)	(3)%
Deferred inflow of resources	82,478	28,636	53,842	188%
Total liabilities and deferred inflow	<u>4,299,398</u>	<u>4,321,586</u>	<u>(22,188)</u>	<u>(1)%</u>
Net position:				
Net investment in capital assets	1,494,381	1,204,366	290,015	24%
Restricted	256,299	259,887	(3,588)	(1)%
Unrestricted	(120,790)	64,130	(184,920)	(288)%
Total net position	<u>\$ 1,629,890</u>	<u>1,528,383</u>	<u>101,507</u>	<u>7%</u>

Net Position
Water and Wastewater
June 30, 2017 and 2016
(In thousands)

	2017	2016	Variance	%
Current and other assets	\$ 967,829	776,898	190,931	25%
Capital assets	4,651,237	4,489,702	161,535	4%
Deferred outflow of resources	230,903	148,078	82,825	56%
Total assets and deferred outflow	<u>5,849,969</u>	<u>5,414,678</u>	<u>435,291</u>	<u>8%</u>
Current and other liabilities	880,313	729,648	150,665	21%
Long-term liabilities	3,412,637	3,173,637	239,000	8%
Deferred inflow of resources	28,636	119,093	(90,457)	(76)%
Total liabilities and deferred inflow	<u>4,321,586</u>	<u>4,022,378</u>	<u>299,208</u>	<u>7%</u>
Net position:				
Net investment in capital assets	1,204,366	1,249,549	(45,183)	(4)%
Restricted	259,887	272,138	(12,251)	(5)%
Unrestricted	64,130	(129,387)	193,517	(150)%
Total net position	<u>\$ 1,528,383</u>	<u>1,392,300</u>	<u>136,083</u>	<u>10%</u>

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Results of Operations

In the current fiscal year, the District's total operating revenue of \$599 million for the year increased by \$65 million and total operating expense of \$430 million for the year increased by \$2 million. The change in net position (including capital contributions) increased from \$136 million in the previous fiscal year to \$210 million in the current fiscal year. The District's total net position increased from \$1,528 million to \$1,630 million during the current fiscal year after a \$108 million decrease of prior period adjustment in net position per implementation of GASB 75.

The major components of the District's results of operations in the current fiscal year were:

- Water revenue increased by \$59 million or 14% due to an 8.9% increase in billed water consumption, and a 9.25% water rate increase, offset by no drought surcharge received in the current fiscal year compared to \$6 million received in the prior year.
- Wastewater revenue increased by \$6 million or 6% primarily due to a 5% wastewater rate increase.
- Operating expense remained stable primarily as increases of \$3 million in raw water expenses, \$3 million in sewer treatment plant operations, \$16 million in general administration expense (primarily \$7.5 million salary retro pay and \$3.5 million loss liabilities reserve), were offset by decreases of \$4 million in financial and risk management and \$16 million in pension expense.
- Non-operating net expense increased by \$4 million primarily as an \$11 million increase in interest and amortization of bond expenses, was offset by a \$5 million increase in investment income and a \$2 million increase in property tax received. Included in non-operating net expense is investment income (loss), consisting of interest earned on investment and the net change in the fair value of investments. The interest earned on investment and the net change in the fair value of investments were \$9 million and (\$2) million respectively in the current fiscal year, and \$4 million and (\$1) respectively in the prior fiscal year.
- Capital contributions increased by \$14 million primarily reflecting an \$18 million increase in System Capacity Charges and a \$3 million increase in Wastewater Capacity Fees due to an increase of infill projects (multi-family dwelling and mixed used structures), particularly in the Oakland areas, offset by an \$8 million decrease in grants and other reimbursements received in the current fiscal year compared to the prior year. Page 17 contains additional capital contributions information.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

In the previous fiscal year, the District's total operating revenue of \$534 million for the year increased by \$9 million and total operating expense of \$428 million for the year increased by \$13 million. The change in net position (including capital contributions) increased from \$119 million in fiscal year 2016 to \$136 million in the fiscal year 2017. The District's total net position increased from \$1,392 million to \$1,528 million during the fiscal year 2017.

The major components of the District's results of operations in fiscal year 2017 were:

- Water revenue remained stable due to a 3.6% increase in billed water consumption, and a 7% water rate increase, offset by \$6 million drought surcharge received in fiscal year 2017 compared to \$51 million received in fiscal year 2016.
- Wastewater revenue increased by \$5 million or 5% primarily due to a 5% wastewater rate increase.
- The power revenue increase resulted from release of excess water to generate more hydropower in the current year.
- Operating expense increased by \$13 million, primarily due to an increase of \$29 million in pension expense, increases of \$7 million in water treatment and distribution expense and \$5 million in depreciation expense, offset by a decrease in raw water expenses of \$27 million in supplemental water purchase and delivery in fiscal year 2016.
- Non-operating net expense decreased by \$3 million primarily due to a \$2 million increase in property tax received and \$1 million increase in sale of capital assets. Included in non-operating net expense is investment income (loss), consisting of interest earned on investment and the net change in the fair value of investments. The interest earned on investment and the net change in the fair value of investments were \$4 million and (\$1) million respectively in fiscal year 2017, and \$3 million and \$119 thousand respectively in fiscal year 2016.
- Capital contributions increased by \$20 million primarily reflecting a \$12 million increase in System Capacity Charges and a \$5 million increase in Wastewater Capacity Fees due to an increase of infill projects (multi-family dwelling and mixed used structures), particularly in the Oakland and Berkeley areas. Page 17 contains additional capital contributions information.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 2 shows changes in the District's net position for the fiscal years ended June 30, 2018, 2017, and 2016:

Table 2

Changes in Net Position

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

	2018	2017	Variance	%
Operating Revenue:				
Water	\$ 480,745	420,293	60,452	14%
Sewer	86,514	81,904	4,610	6%
Power	7,544	8,707	(1,163)	(13)%
Wet weather facilities charges	24,293	23,105	1,188	5%
Total operating revenue	599,096	534,009	65,087	12%
Operating Expense:				
Raw water	40,349	37,551	2,798	7%
Water treatment & distribution	113,422	113,587	(165)	(0)%
Recreation areas, net	5,682	5,689	(7)	(0)%
Sewer lines & pumps	13,422	14,611	(1,189)	(8)%
Sewer treatment plant operations	38,220	35,147	3,073	9%
Customer accounting & collecting	19,434	19,915	(481)	(2)%
Financial and risk management	17,518	21,643	(4,125)	(19)%
Facilities management	5,523	5,177	346	7%
General administration	60,036	43,600	16,436	38%
Pension expense	(10,183)	6,194	(16,377)	(264)%
OPEB expense	(1,153)	—	(1,153)	N/A
Depreciation (excluding amounts reported within the Water and Wastewater operations)	128,076	125,227	2,849	2%
Total operating expense	430,346	428,341	2,005	0%
Net operating income (expense)	168,750	105,668	63,082	60%
Nonoperating income (expense):				
Investment income	7,131	2,538	4,593	181%
Taxes & subventions	41,480	39,751	1,729	4%
Interest & amortization of bond expenses, net	(120,719)	(109,742)	(10,977)	10%
Increase (decrease) of Equity in JPA partnership fund	(3,380)	(3,759)	379	(10)%
Other income	17,420	16,848	572	3%
Total nonoperating income (expense), net	(58,068)	(54,364)	(3,704)	7%
Income (loss) before contributions	110,682	51,304	59,378	116%
Capital contributions	98,997	84,779	14,218	17%
Change in net position	209,679	136,083	73,596	54%
Total net position – beginning	1,528,383	1,392,300	136,083	10%
Prior Period adjustment per implementation of GASB 75	(108,172)	—	(108,172)	N/A
Total net position – ending	\$ 1,629,890	1,528,383	101,507	7%

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 2 (Continued)

Changes in Net Position

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>%</u>
Operating Revenue:				
Water	\$ 420,293	421,240	(947)	(0)%
Sewer	81,904	77,542	4,362	6%
Power	8,707	4,771	3,936	82%
Wet weather facilities charges	23,105	21,918	1,187	5%
Total operating revenue	<u>534,009</u>	<u>525,471</u>	<u>8,538</u>	<u>2%</u>
Operating Expense:				
Raw water	37,551	64,386	(26,835)	(42)%
Water treatment & distribution	113,587	106,484	7,103	7%
Recreation areas, net	5,689	5,581	108	2%
Sewer lines & pumps	14,611	13,407	1,204	9%
Sewer treatment plant operations	35,147	33,292	1,855	6%
Customer accounting & collecting	19,915	19,110	805	4%
Financial and risk management	21,643	19,648	1,995	10%
Facilities management	5,177	6,329	(1,152)	(18)%
General administration	43,600	49,686	(6,086)	(12)%
Pension expense	6,194	(22,776)	28,970	(127)%
Depreciation (excluding amounts reported within the Water and Wastewater operations)	125,227	119,791	5,436	5%
Total operating expense	<u>428,341</u>	<u>414,938</u>	<u>13,403</u>	<u>3%</u>
Net operating income (expense)	105,668	110,533	(4,865)	(4)%
Nonoperating income (expense):				
Investment income	2,538	2,675	(137)	(5)%
Taxes & subventions	39,751	37,808	1,943	5%
Interest & amortization of bond expenses, net	(109,742)	(109,340)	(402)	0%
Increase (decrease) of Equity in JPA partnership fund	(3,759)	(3,081)	(678)	22%
Other income	16,848	15,050	1,798	12%
Total nonoperating income (expense), net	<u>(54,364)</u>	<u>(56,888)</u>	<u>2,524</u>	<u>(4)%</u>
Income (loss) before contributions	51,304	53,645	(2,341)	(4)%
Capital contributions	<u>84,779</u>	<u>65,004</u>	<u>19,775</u>	<u>30%</u>
Change in net position	136,083	118,649	17,434	15%
Total net position – beginning	<u>1,392,300</u>	<u>1,273,651</u>	<u>118,649</u>	<u>9%</u>
Total net position – ending	<u>\$ 1,528,383</u>	<u>1,392,300</u>	<u>136,083</u>	<u>10%</u>

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Liquidity

The District had \$604 million in combined current and noncurrent District Cash and Investments as of June 30, 2018, a decrease of \$64 million compared to \$668 million as of June 30, 2017. Components of cash and investments for the year ended June 30, 2018 were:

- Water System total combined current and noncurrent cash and investments decreased by \$75 million compared to the same date of the previous fiscal year. Net increase (decrease) in cash and cash equivalents decreased by \$248 million compared to the prior year. This was primarily due to an increase of \$70 million from operating activities and an increase of \$11 million from the reallocation of investments between short-term and long-term, offset by a decrease of \$332 million from capital and related financing activities. The \$332 million decrease from capital and related financing activity is a result of a \$57 million increase in capital expending in the current fiscal year net of \$275 million new bond issuance proceeds received in the prior year. Net increase (decrease) in noncurrent investments increased by \$8 million also primarily due to reallocation of investments between short-term and long-term.
- Wastewater System total combined current and noncurrent cash and investments increased by \$11 million compared to the same date in the previous fiscal year. For the year ended June 30, 2018, net increase (decrease) in cash and cash equivalents increased by \$16 million compared to the prior year. This was primarily due to an increase of \$5 million from operating activities, an increase of \$19 million from the reallocation of investments between short-term and long-term, offset by a decrease of \$7 million from capital and related financing activities. The \$7 million decrease from capital and related financing activity is a result of a \$14 million decrease in capital expending in the current fiscal year net of \$21 million new bond issuance proceeds received in the prior year. Net increase (decrease) in noncurrent investments decreased by \$18 million also primarily due to reallocation of investments between short-term and long-term.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 3 shows the District's cash flow for the fiscal years ended June 30, 2018, 2017, and 2016:

Table 3
Cash Flows
Water and Wastewater System
June 30, 2018 and 2017
(In thousands)

	<u>2018</u>	<u>2017</u>	<u>Variance</u>	<u>%</u>
Cash and cash equivalents:				
Beginning of year	\$ 269,057	\$ 204,700	64,357	31%
Net cash provided by operating activities	342,147	267,208	74,939	28%
Net cash provided by financing activities	41,480	39,751	1,729	4%
Net cash provided by (used in) capital and related financing activities	(453,499)	(114,505)	(338,994)	296%
Net cash provided by (used in) investing activities	(98,242)	(128,097)	29,855	(23)%
Net increase (decrease) in cash and cash equivalents	(168,114)	64,357	(232,471)	(361)%
End of period	<u>100,943</u>	<u>269,057</u>	<u>(168,114)</u>	(62)%
Investments:				
Beginning of year	398,759	268,442	130,317	49%
Net increase (decrease) in investments	103,939	130,317	(26,378)	(20)%
End of period	<u>502,698</u>	<u>398,759</u>	<u>103,939</u>	26%
Total District Cash and Investments	<u>\$ 603,641</u>	<u>\$ 667,816</u>	<u>(64,175)</u>	(10)%

Cash Flows
Water and Wastewater System
June 30, 2017 and 2016
(In thousands)

	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>%</u>
Cash and cash equivalents:				
Beginning of year	\$ 204,700	\$ 415,831	(211,131)	(51)%
Net cash provided by operating activities	267,208	246,911	20,297	8%
Net cash provided by financing activities	39,751	37,808	1,943	5%
Net cash provided by (used in) capital and related financing activities	(114,505)	(383,496)	268,991	(70)%
Net cash provided by (used in) investing activities	(128,097)	(112,354)	(15,743)	14%
Net increase (decrease) in cash and cash equivalents	64,357	(211,131)	275,488	(130)%
End of period	<u>269,057</u>	<u>204,700</u>	<u>64,357</u>	31%
Investments:				
Beginning of year	268,442	153,682	114,760	75%
Net increase (decrease) in investments	130,317	114,760	15,557	14%
End of period	<u>398,759</u>	<u>268,442</u>	<u>130,317</u>	49%
Total District Cash and Investments	<u>\$ 667,816</u>	<u>\$ 473,142</u>	<u>194,674</u>	41%

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Cash and Investments by Fund

In fiscal years 2018 and 2017, total cash and investments available for operating and capital activities are reported in current and noncurrent assets as unrestricted and restricted funds. Significant activities in current fiscal year were as follows: Water System increased reserves of \$4 million in working capital, use of \$80 million in capital reserves to fund capital projects and equipment and reserve of an additional \$3 million in funds received for construction. Wastewater System increased \$12 million in capital reserves to fund capital projects and equipment.

In the previous fiscal year, significant activities were as follows: Water System increased reserves of \$4 million in working capital, \$2 million in self-insurance reserves, \$4 million in workers' compensation reserves, and \$170 million in capital reserves to fund capital projects, and additional \$11 million in funds received for construction; and release of \$9 million in debt service reserve fund through refunding. Wastewater System increased reserve of \$1 million in working capital, \$1 million in workers' compensation reserves, and additional \$12 million in capital reserves to fund capital projects and equipment.

Operating and Capital Reserves are components of Unrestricted Cash and Investments. Individual funds within Operating and Capital Reserves are funded pursuant to Board policy but are unrestricted as to use. The Unrestricted Reserve Balances indicate the District's ability to meet unanticipated revenue declines or expenditure increases. Unrestricted reserves are committed by the Board of Directors. This is distinct from restricted reserves which are legally constrained by law or by third party. For additional information, see Note 1H to the financial statements.

Table 4 shows the District's cash and investment by fund for the fiscal years ended June 30, 2018, 2017, and 2016:

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 4

Cash and Investment by Fund

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

	Water System		Wastewater System		Total		Increase (decrease)	
	2018	2017	2018	2017	2018	2017	Amount	%
Unrestricted cash and investment								
Operating reserves:								
Rate stabilization fund	\$ 95,000	95,000	24,090	24,090	119,090	119,090	—	0%
Working capital reserve	69,100	65,600	17,600	17,700	86,700	83,300	3,400	4%
Self-insurance	6,974	6,651	1,135	1,267	8,109	7,918	191	2%
Workers compensation	5,422	7,066	883	1,346	6,305	8,412	(2,107)	(25)%
Total operating reserves	<u>176,496</u>	<u>174,317</u>	<u>43,708</u>	<u>44,403</u>	<u>220,204</u>	<u>218,720</u>	<u>1,484</u>	<u>1%</u>
Capital reserves:								
Reserved for capital projects	254,186	334,746	35,731	31,771	289,917	366,517	(76,600)	(21)%
Reserve funded CIP - Wastewater	—	—	14,803	14,642	14,803	14,642	161	1%
Vehicle replacements	7,387	6,791	—	—	7,387	6,791	596	9%
Equipment replacements	3,190	3,282	18,007	10,062	21,197	13,344	7,853	59%
Total capital reserves	<u>264,763</u>	<u>344,819</u>	<u>68,541</u>	<u>56,475</u>	<u>333,304</u>	<u>401,294</u>	<u>(67,990)</u>	<u>(17)%</u>
Total Unrestricted cash and investment	<u>441,259</u>	<u>519,136</u>	<u>112,249</u>	<u>100,878</u>	<u>553,508</u>	<u>620,014</u>	<u>(66,506)</u>	<u>(11)%</u>
Restricted Cash and Investments								
Bond interest and redemption fund	97	519	18	18	115	537	(422)	(79)%
Debt service reserve fund	3,654	3,620	—	—	3,654	3,620	34	1%
Funds received for construction	43,659	40,924	—	—	43,659	40,924	2,735	7%
FERC partnership fund	2,164	2,185	—	—	2,164	2,185	(21)	(1)%
Monetary reserve	541	536	—	—	541	536	5	1%
Total restricted cash and investments	<u>50,115</u>	<u>47,784</u>	<u>18</u>	<u>18</u>	<u>50,133</u>	<u>47,802</u>	<u>2,331</u>	<u>5%</u>
Total District Cash and Investments	<u>\$ 491,374</u>	<u>566,920</u>	<u>112,267</u>	<u>100,896</u>	<u>603,641</u>	<u>667,816</u>	<u>(64,175)</u>	<u>(10)%</u>

Cash and Investment by Fund

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

	Water System		Wastewater System		Total		Increase (decrease)	
	2017	2016	2017	2016	2017	2016	Amount	%
Unrestricted cash and investment								
Operating reserves:								
Rate stabilization fund	\$ 95,000	95,000	24,090	24,090	119,090	119,090	—	0%
Working capital reserve	65,600	62,100	17,700	16,400	83,300	78,500	4,800	6%
Self-insurance	6,651	5,000	1,267	1,700	7,918	6,700	1,218	18%
Workers compensation	7,066	3,200	1,346	600	8,412	3,800	4,612	121%
Total operating reserves	<u>174,317</u>	<u>165,300</u>	<u>44,403</u>	<u>42,790</u>	<u>218,720</u>	<u>208,090</u>	<u>10,630</u>	<u>5%</u>
Capital reserves:								
Reserved for capital projects	334,746	168,768	31,771	23,884	366,517	192,652	173,865	90%
Reserve funded CIP - Wastewater	—	—	14,642	14,530	14,642	14,530	112	1%
Vehicle replacements	6,791	5,300	—	—	6,791	5,300	1,491	28%
Equipment replacements	3,282	1,063	10,062	5,779	13,344	6,842	6,502	95%
Total capital reserves	<u>344,819</u>	<u>175,131</u>	<u>56,475</u>	<u>44,193</u>	<u>401,294</u>	<u>219,324</u>	<u>181,970</u>	<u>83%</u>
Total Unrestricted cash and investment	<u>519,136</u>	<u>340,431</u>	<u>100,878</u>	<u>86,983</u>	<u>620,014</u>	<u>427,414</u>	<u>192,600</u>	<u>45%</u>
Restricted Cash and Investments								
Bond interest and redemption fund	519	5	18	18	537	23	514	2,235%
Debt service reserve fund	3,620	12,726	—	—	3,620	12,726	(9,106)	(72)%
Funds received for construction	40,924	30,243	—	—	40,924	30,243	10,681	35%
FERC partnership fund	2,185	2,201	—	—	2,185	2,201	(16)	(1)%
Monetary reserve	536	535	—	—	536	535	1	0%
Total restricted cash and investments	<u>47,784</u>	<u>45,710</u>	<u>18</u>	<u>18</u>	<u>47,802</u>	<u>45,728</u>	<u>2,074</u>	<u>5%</u>
Total District Cash and Investments	<u>\$ 566,920</u>	<u>386,141</u>	<u>100,896</u>	<u>87,001</u>	<u>667,816</u>	<u>473,142</u>	<u>194,674</u>	<u>41%</u>

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Capital Contributions

Capital contributions primarily consist of System Capacity Charges (SCC) and Wastewater Capacity Fees (WCF). Additionally, the District receives contributions when the District's facilities need to be relocated during construction projects. The District also receives state and federal grants to fund capital projects.

The Water System's SCC consists of charges collected from all applicants who request a new water service connection or a larger water meter size, and varies depending on geographic region. The SCC pays for the applicant's share of the capital facilities, including those that serve the entire water system such as the aqueducts and raw water facilities, regional facilities such as treatment plants and distribution facilities, and future water supply upgrades needed to meet long-term increases in water demand created by new customers. The portion of the SCC that pays for the future water supply is restricted and the remainder is unrestricted.

The Wastewater System's Capacity Fees are treated as unrestricted funds and pays for the share of Wastewater facilities attributed to new customers.

System Capacity Charges increased by \$18 million and Wastewater Capacity Fees increased by \$3 million due to an increase in infill projects (multi-family dwelling and mixed used structures), particularly in the Oakland area. Grants and other reimbursements decreased by \$8 primarily due to less state grants received in the current fiscal year compared to the prior year.

Table 5 shows the District's capital contributions received for the fiscal years ended June 30, 2018, 2017, and 2016:

Table 5
Capital Contributions
Water and Wastewater
June 30, 2018 and 2017
(In thousands)

	Water System		Wastewater System		Total		Increase (decrease)	
	2018	2017	2018	2017	2018	2017	Amount	%
System capacity charges	\$ 69,270	51,451	—	—	69,270	51,451	17,819	35%
Wastewater capacity fees	—	—	11,418	7,969	11,418	7,969	3,449	43%
Earned contributions on construction	15,518	14,370	16	705	15,534	15,075	459	3%
Seismic improvement surcharge	—	9	—	—	—	9	(9)	(100)%
Grants and other reimbursements	2,775	10,081	—	194	2,775	10,275	(7,500)	(73)%
Totals	\$ 87,563	75,911	11,434	8,868	98,997	84,779	14,218	17%

Capital Contributions
Water and Wastewater
June 30, 2017 and 2016
(In thousands)

	Water System		Wastewater System		Total		Increase (decrease)	
	2017	2016	2017	2016	2017	2016	Amount	%
System capacity charges	\$ 51,451	39,321	—	—	51,451	39,321	12,130	31%
Wastewater capacity fees	—	—	7,969	3,142	7,969	3,142	4,827	154%
Earned contributions on construction	14,370	17,045	705	747	15,075	17,792	(2,717)	(15)%
Seismic improvement surcharge	9	33	—	—	9	33	(24)	(73)%
Grants and other reimbursements	10,081	4,392	194	324	10,275	4,716	5,559	118%
Totals	\$ 75,911	60,791	8,868	4,213	84,779	65,004	19,775	30%

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

CAPITAL ASSETS

The District had \$4.9 billion (net of accumulated depreciation) invested in a broad range of utility capital assets as of June 30, 2018. Total capital assets were \$4.7 billion as of June 30, 2017. The investment in capital assets includes land, buildings, improvements, water treatment plants, filter plants, aqueducts, water transmission and distribution mains, water storage facilities, pump stations, water reclamation facilities, wastewater and wet weather treatment facilities, machinery and equipment (*see Table 6 below*). In the current fiscal year, capital assets increased by \$205 million or 4.4% over the prior fiscal year. In fiscal year 2017, capital assets increased by \$162 million or 3.6% over fiscal year 2016. Annual changes are consistent with the District's capital improvement program.

The Water System had \$4.1 billion (net of accumulated depreciation) invested in a broad range of utility capital assets as of June 30, 2018. The investment in capital assets includes land, buildings, improvements, water treatment plants, filter plants, aqueducts, water transmission and distribution mains, water storage facilities, power generation, pump stations, water reclamation facilities, machinery and equipment.

The Wastewater System had \$716 million (net of accumulated depreciation) invested in a broad range of utility capital assets as of June 30, 2018. The investment in capital assets includes land, buildings, improvements, power generation, wastewater and wet weather treatment facilities, machinery and equipment.

Table 6 shows the District's capital assets for the fiscal years ended June 30, 2018, 2017, and 2016:

Table 6

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

	Water System		Wastewater System		Total		Increase/(decrease)	
	2018	2017	2018	2017	2018	2017	Amount	%
Structures, buildings, and equipment	\$ 3,602,573	3,470,628	650,584	632,224	4,253,157	4,102,852	150,305	3.7%
Land and rights of way	65,001	64,508	21,357	21,285	86,358	85,793	565	0.7%
Construction work in progress	472,446	405,357	43,946	57,235	516,392	462,592	53,800	11.6%
Totals	\$ 4,140,020	3,940,493	715,887	710,744	4,855,907	4,651,237	204,670	4.4%

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 6 (Continued)

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

	Water System		Wastewater System		Total		Increase/(decrease)	
	2017	2016	2017	2016	2017	2016	Amount	%
Structures, buildings, and equipment	\$ 3,470,628	3,434,454	632,224	608,946	4,102,852	4,043,400	59,452	1.5%
Land and rights of way	64,508	58,733	21,285	21,191	85,793	79,924	5,869	7.3%
Construction work in progress	<u>405,357</u>	<u>302,973</u>	<u>57,235</u>	<u>63,405</u>	<u>462,592</u>	<u>366,378</u>	<u>96,214</u>	26.3%
Totals	<u>\$ 3,940,493</u>	<u>3,796,160</u>	<u>710,744</u>	<u>693,542</u>	<u>4,651,237</u>	<u>4,489,702</u>	<u>161,535</u>	3.6%

The District's net revenue, long-term debt, and contributions from customers are used to finance capital investments. More detailed information about the District's capital assets is presented in Note 3 to the basic financial statements.

This year's major capital expenditures included:

Water System:

Pipeline Infrastruct Renewals	\$ 56,876
WTTIP WTP Improvements	55,006
Reservoir Rehab/Maintenance	37,941
Summit Pressure Zone Improve	32,622
Open Cut Reservoir Rehab	31,781
Pumping Plant Rehabilitation	28,598
Large Diameter Pipelines	24,565
Addl Supplemental Supply Projs	15,857
Faria PZI (formerly Purdue)	14,737
Treatment Plant Upgrades	14,410
Reservoir Tower Modifications	13,595
Raw Water Studies and Improves	12,652
Water Conservation Project	9,249
Service Lateral Replacements	8,157
SRV Recycled Water Program	7,199
Water Capital Costs Misc.	6,658
Pipeline Relocations	6,235
West of Hills Master Plan	6,167
Trench Soils Storage Sites	5,203
Mok Aqu No 2 & 3 Relining Proj	4,235

Wastewater System:

Treatment Plant Infrastructure	\$ 7,679
3rd St Sewer Interceptor Rehab	5,989
PS Q FM Dual-Mode Operation	4,863
Treatment Plant Infra Ph 2	4,073
Digester Upgrade	3,804
Infiltration/Inflow Contrl Prj	2,873
Routine Cap Equip Replacement	2,538
Resource Recovery Project	2,092
MWWTP Master Planning	1,968
Concrete Rehab at SD1	1,638
MWWTP Pwr Dist Sys Upgrade	1,146

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

DEBT ADMINISTRATION

The District had total long-term debt outstanding of \$3.4 billion as of June 30, 2018, a 3% decrease from June 30, 2017. Total long-term debt outstanding was \$3.5 billion as of June 30, 2017, an 8% increase from June 30, 2016. Components of the District's long-term debt portfolio as of June 30, 2018 are:

- The Water System had total long-term debt outstanding of \$3.0 billion.
- The Wastewater System had total long-term debt outstanding of \$423 million.

Table 7 shows the District's long-term debt outstanding for the fiscal years ended June 30, 2018, 2017, and 2016:

Table 7
Long -Term Debt
(Net of Unamortized Costs)
Water and Wastewater
June 30, 2018 and 2017
(In thousands)

	Water System		Wastewater System		Total		Increase (decrease)	
	2018	2017	2018	2017	2018	2017	Amount	%
General obligation bonds	\$ —	—	—	3,602	—	3,602	(3,602)	(100)%
Revenue bonds	2,592,137	2,671,994	407,937	421,825	3,000,074	3,093,819	(93,745)	(3)%
Commercial paper	359,800	359,800	15,000	15,000	374,800	374,800	—	0%
Loans	14,061	12,892	—	—	14,061	12,892	1,169	9%
Totals	\$ 2,965,998	3,044,686	422,937	440,427	3,388,935	3,485,113	(96,178)	(3)%

Long -Term Debt
(Net of Unamortized Costs)
Water and Wastewater
June 30, 2017 and 2016
(In thousands)

	Water System		Wastewater System		Total		Increase (decrease)	
	2017	2016	2017	2016	2017	2016	Amount	%
General obligation bonds	\$ —	—	3,602	7,616	3,602	7,616	(4,014)	(53)%
Revenue bonds	2,671,994	2,435,000	421,825	408,779	3,093,819	2,843,779	250,040	9%
Commercial paper	359,800	359,800	15,000	15,000	374,800	374,800	—	0%
Loans	12,892	13,957	—	—	12,892	13,957	(1,065)	(8)%
Totals	\$ 3,044,686	2,808,757	440,427	431,395	3,485,113	3,240,152	244,961	8%

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

It is the policy of the District to maintain a reasonable balance between debt and current revenue financing of capital projects. The following targets provide the framework for financing capital projects:

Debt Service Coverage Ratio: Maintain an annual revenue bond debt service coverage ratio of at least 1.6 times. As of June 30, 2018, the coverage ratio for Water was 2.15 and for Wastewater was 2.51; the overall District ratio was 2.20.

Debt-Funded Capital Spending: Limit debt-funded capital to no more than 65% of the total capital program over each five-year planning period. As of June 30, 2018, the percentage of debt-funded capital spending for Water was 44% and for Wastewater was 15%; the overall District percentage was 41%.

Extended Commercial Paper and Un-hedged Variable Rate Debt: Maintain an annual limit of 25% of outstanding long-term debt. As of June 30, 2018, the percentage of extended commercial paper and un-hedged variable rate debt compared to total outstanding long-term debt for Water was 13% and for Wastewater was 4%; the overall District percentage was 12%.

The District's credit ratings are outlined in Table 8.

Table 8

Credit Ratings

Water and Wastewater

June 30, 2018

District debt by type	Rating by		
	Standard & Poor's	Moody's Investors Service	Fitch
Water system:			
Fixed Rate Revenue Bonds	AAA	Aa1	AA+
Variable Rate Revenue Bonds			
Long-term Underlying Rating	AAA	Aa1	-
Short-Term Rating	A-1+	VMIG-1	-
Commercial Paper Notes	A-1+	P-1	-
Wastewater system:			
Fixed Rate Revenue Bonds	AAA	Aa2	AA+
Extendable Commercial Paper	A-1+	P-1	F1+

For detail credit rating by bond issue, please visit our website at <http://www.ebmud.com>.

Revenue-supported debt authorization for the District can be approved by the District's Board of Directors, subject to a referendum process. At June 30, 2018, the Water System had \$764 million and the Wastewater System had \$186 million in authorized but unissued revenue bonds.

Additional information on the District's long-term debt can be found in Note 6 to the financial statements.

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

REQUEST FOR INFORMATION

This financial report is designed to provide ratepayers and creditors with a general overview of the District's finances and demonstrate the District's accountability for the monies it receives. If you have any questions about this report or need additional information, please contact: the Controller, Accounting Division, P.O. Box 24055, Oakland, CA 94623-1055 or visit our website at <http://www.ebmud.com>.

EAST BAY MUNICIPAL UTILITY DISTRICT
BALANCE SHEETS
JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Totals	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Current assets:						
Cash and cash equivalents (Note 2)	\$33,261	\$177,417	\$57,952	\$44,173	\$91,213	\$221,590
Investments (Note 2)	407,998	341,719	54,297	56,705	462,295	398,424
Receivables:						
Customer	46,232	42,259	6,093	6,021	52,325	48,280
Interest and other	3,223	4,513	2,901	2,904	6,124	7,417
Materials and supplies	9,901	9,246	-	-	9,901	9,246
Prepaid Insurance	1,269	1,054	248	-	1,517	1,054
Total current assets	501,884	576,208	121,491	109,803	623,375	686,011
Noncurrent assets:						
Restricted cash and investments (Note 2):						
Cash and cash equivalents	9,712	47,449	18	18	9,730	47,467
Investments	40,403	335	-	-	40,403	335
Total restricted cash and investments	50,115	47,784	18	18	50,133	47,802
Other assets:						
Equity in JPA partnership fund (Note 2K)	229,830	233,210	-	-	229,830	233,210
Other	666	531	278	275	944	806
Total other assets	230,496	233,741	278	275	230,774	234,016
Capital assets (Note 3):						
Structures, buildings, and equipment	5,497,734	5,264,539	1,114,555	1,073,495	6,612,289	6,338,034
Less accumulated depreciation	(1,895,161)	(1,793,911)	(463,971)	(441,271)	(2,359,132)	(2,235,182)
Subtotal	3,602,573	3,470,628	650,584	632,224	4,253,157	4,102,852
Land and rights-of-way	65,001	64,508	21,357	21,285	86,358	85,793
Construction in progress	472,446	405,357	43,946	57,235	516,392	462,592
Total capital assets, net	4,140,020	3,940,493	715,887	710,744	4,855,907	4,651,237
Total noncurrent assets	4,420,631	4,222,018	716,183	711,037	5,136,814	4,933,055
Total assets	4,922,515	4,798,226	837,674	820,840	5,760,189	5,619,066
Deferred outflows of resources:						
Accumulated decrease in fair value of hedging derivatives (Note 6)	18,256	24,777	-	-	18,256	24,777
Debt refundings related (Note 1I)	25,208	34,801	2,202	3,441	27,410	38,242
Pension related (Note 8)	97,176	143,621	16,202	24,263	113,378	167,884
OPEB related (Note 8)	8,611	-	1,444	-	10,055	-
Total deferred outflows	149,251	203,199	19,848	27,704	169,099	230,903
Total assets and deferred outflows	\$5,071,766	\$5,001,425	\$857,522	\$848,544	\$5,929,288	\$5,849,969

(Continued)

EAST BAY MUNICIPAL UTILITY DISTRICT
BALANCE SHEETS
JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Totals	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Current liabilities:						
Current maturities of long-term debt and Commercial Paper (Note 5 & 6)						
Accounts payable and accrued expenses (Note 4)	\$61,265	\$58,926	\$10,370	\$13,550	\$71,635	\$72,476
Current reserve for claims (Note 9)	89,126	68,852	9,630	9,342	98,756	78,194
Accrued interest	9,081	9,341	644	755	9,725	10,096
	10,485	9,063	1,588	1,521	12,073	10,584
Total current liabilities	169,957	146,182	22,232	25,168	192,189	171,350
Noncurrent liabilities:						
Advances for construction	23,664	21,125	-	-	23,664	21,125
OPEB liabilities (Note 8)	-	23,019	-	4,131	-	27,150
Reserve for claims (Note 9)	37,016	33,036	4,260	4,322	41,276	37,358
Net pension liability (Note 8)	416,174	514,809	71,285	89,283	487,459	604,092
Net OPEB liability (Note 8)	115,930	-	19,876	-	135,806	-
Other liabilities	12,808	12,834	6,418	6,404	19,226	19,238
Long-term liabilities, net of current maturities (Note 5 & 6)	2,904,733	2,985,760	412,567	426,877	3,317,300	3,412,637
Total noncurrent liabilities	3,510,325	3,590,583	514,406	531,017	4,024,731	4,121,600
Total liabilities	3,680,282	3,736,765	536,638	556,185	4,216,920	4,292,950
Deferred inflows of resources						
Derivative instrument (Note 6)	18,256	24,777	-	-	18,256	24,777
Pension related (Note 8)	45,417	720	10,387	3,139	55,804	3,859
OPEB related (Note 8)	7,032	-	1,386	-	8,418	-
Total deferred inflows	70,705	25,497	11,773	3,139	82,478	28,636
Total liabilities and deferred inflows	3,750,987	3,762,262	548,411	559,324	4,299,398	4,321,586
Net position (Note 7):						
Net investment in capital assets	1,199,230	930,608	295,151	273,758	1,494,381	1,204,366
Restricted for construction (Note 1H)	19,995	19,799	-	-	19,995	19,799
Restricted for debt service (Note 1H)	3,751	4,139	18	18	3,769	4,157
Restricted for JPA	229,830	233,210	-	-	229,830	233,210
Restricted - other (Note 1H)	2,705	2,721	-	-	2,705	2,721
Unrestricted	(134,732)	48,686	13,942	15,444	(120,790)	64,130
Total net position	1,320,779	1,239,163	309,111	289,220	1,629,890	1,528,383
Total liabilities, deferred inflows and net position	\$5,071,766	\$5,001,425	\$857,522	\$848,544	\$5,929,288	\$5,849,969

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Total
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2017
Operating revenue:					
Water	\$480,745	\$420,293	-	-	\$480,745
Sewer	-	-	\$86,514	\$81,904	86,514
Power	6,435	7,807	1,109	900	7,544
Wet weather facilities charges	-	-	24,293	23,105	24,293
Total operating revenue	<u>487,180</u>	<u>428,100</u>	<u>111,916</u>	<u>105,909</u>	<u>599,096</u>
Operating expense:					
Raw water	40,349	37,551	-	-	40,349
Water treatment and distribution	113,422	113,587	-	-	113,422
Recreation areas, net	5,682	5,689	-	-	5,682
Sewer lines and pumping	-	-	13,422	14,611	13,422
Sewer treatment plant operations	-	-	38,220	35,147	38,220
Customer accounting and collecting	17,040	17,517	2,394	2,398	19,434
Financial and risk management	16,943	20,950	575	693	17,518
Facilities management	5,523	5,177	-	-	5,523
General administration	49,926	37,158	10,110	6,442	60,036
Pension expense	(7,494)	6,221	(2,689)	(27)	(10,183)
OPEB expense	(945)	-	(208)	-	(1,153)
Depreciation on utility plant and vehicle	105,375	102,561	22,701	22,666	128,076
Total operating expense	<u>345,821</u>	<u>346,411</u>	<u>84,525</u>	<u>81,930</u>	<u>430,346</u>
Net operating income	<u>141,359</u>	<u>81,689</u>	<u>27,391</u>	<u>23,979</u>	<u>168,750</u>
Nonoperating income (expense):					
Investment income	6,124	2,111	1,007	427	7,131
Taxes and subventions	34,706	31,971	6,774	7,780	41,480
Interest and amortization of bond expenses, net of capitalized interest of \$9,336 and \$10,358 for the Water System and \$420 and \$985 for the Wastewater System in 2018 and 2017, respectively	(103,931)	(92,855)	(16,788)	(16,887)	(120,719)
Increase (decrease) of equity in JPA partnership fund	(3,380)	(3,759)	-	-	(3,380)
Other income	11,452	12,682	5,968	4,166	17,420
Total nonoperating income (expense), net	<u>(55,029)</u>	<u>(49,850)</u>	<u>(3,039)</u>	<u>(4,514)</u>	<u>(58,068)</u>
Income (loss) before capital contributions	86,330	31,839	24,352	19,465	110,682
Capital contributions	87,563	75,911	11,434	8,868	98,997
Change in net position	173,893	107,750	35,786	28,333	209,679
Total net position - beginning	1,239,163	1,131,413	289,220	260,887	1,528,383
Prior period adjustment per implementation of GASB 75	(92,277)	-	(15,895)	-	(108,172)
Total net position - ending	<u>\$1,320,779</u>	<u>\$1,239,163</u>	<u>\$309,111</u>	<u>\$289,220</u>	<u>\$1,628,383</u>

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Total
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2017
Cash flows from operating activities					
Cash received from customers	\$483,207	\$431,882	\$111,843	\$105,581	\$537,463
Cash received from other income	11,452	12,682	5,969	4,166	16,848
Cash payments for judgments and claims	(4,981)	(7,668)	(207)	(273)	(7,941)
Cash payments to suppliers for goods and services	(23,379)	(37,167)	(32,397)	(28,699)	(65,866)
Cash payments to employees for services	(179,482)	(182,470)	(29,878)	(30,826)	(213,296)
Net cash provided by operating activities	286,817	217,259	55,330	49,949	267,208
Cash flows from noncapital financing activities:					
Tax receipts	34,706	31,971	6,774	7,780	39,751
Net cash provided by financing activities	34,706	31,971	6,774	7,780	39,751
Capital and related financing activities:					
Capital contributions	87,563	75,911	11,434	8,868	84,779
Proceeds from advances for construction	2,539	10,567	-	-	10,567
Proceeds from sale of capital assets	2,307	1,749	-	-	1,749
Net proceeds and premiums from sale of bonds	-	601,672	-	83,245	684,917
Acquisition and construction of capital assets	(322,725)	(266,255)	(30,041)	(41,637)	(307,892)
Principal retirement on long-term debt and commercial paper	(69,095)	(399,044)	(16,251)	(77,062)	(476,106)
Amount paid to refunding bond escrow agent	-	(2)	-	-	(2)
Costs and discounts from issuance on long-term debt	-	(1,498)	-	(592)	(2,090)
Interest paid on long-term debt	(102,509)	(93,376)	(16,721)	(17,051)	(110,427)
Net cash provided by (used in) capital and related financing activities	(401,920)	(70,276)	(51,579)	(44,229)	(114,505)
Cash flows from investing activities:					
Proceeds from securities	227,560	186,184	33,878	32,329	218,513
Expenditures from purchases of securities	(333,908)	(300,692)	(31,470)	(48,139)	(348,831)
Interest received on investments	4,852	1,825	846	396	2,221
Net cash provided by (used in) investing activities	(101,496)	(112,683)	3,254	(15,414)	(128,097)
Net increase (decrease) in cash and cash equivalents	(181,893)	66,271	13,779	(1,914)	64,357
Cash and cash equivalents:					
Beginning of year	224,866	158,595	44,191	46,105	204,700
End of period	\$42,973	\$224,866	\$57,970	\$44,191	\$269,057

(Continued)

EAST BAY MUNICIPAL UTILITY DISTRICT
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Total
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2017
Reconciliation of net operating income to net cash provided by operating activities:					
Net operating income	\$141,359	\$81,689	\$27,391	\$23,979	\$168,750
Adjustments to reconcile net operating income to net cash provided by operating activities:					
Pension expense	(7,494)	6,221	(2,689)	(27)	(10,183)
OPEB expense	(945)	-	(208)	-	(1,153)
Depreciation on utility plant and vehicle	105,375	102,561	22,701	22,666	128,076
Depreciation within recreation areas	1,518	1,335	-	-	1,518
Amortization	14,000	16,276	2,197	1,769	16,197
Other income	11,452	12,682	5,968	4,166	17,420
Changes in assets/liabilities:					
Materials and supplies	(655)	(1,162)	-	-	(655)
Prepaid insurance	(215)	46	(248)	-	(463)
Customer receivables	(3,973)	3,782	(72)	(328)	(4,045)
Other assets	2,427	(1,300)	161	(736)	2,588
OPEB liability	-	1,560	-	268	-
Reserve for claims	3,720	785	(173)	(1,108)	3,547
Accounts payable and accrued expenses	20,248	(7,216)	302	(700)	20,550
Net cash provided by operating activities	\$286,817	\$217,259	\$55,330	\$49,949	\$342,147
Schedule of Non-Cash Activities					
Change in Fair Value	(\$3,363)	(\$1,546)	(\$396)	(\$186)	(\$3,759)
					(\$1,732)

EAST BAY MUNICIPAL UTILITY DISTRICT
STATEMENTS OF FIDUCIARY NET POSITION
FIDUCIARY FUND - PENSION AND OTHER EMPLOYEE BENEFIT TRUST
(COMPONENT UNIT)
JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	2018	2017
Assets:		
Cash and investments (Note 2)	\$41,196	\$48,988
Invested securities lending collateral (Note 2)	47,104	108,858
Receivables:		
Contributions	1,648	1,263
Interest and other	5,097	6,790
Prepaid insurance	536	518
Retirement system investments, at fair value (Note 2)		
U.S. government obligations	107,464	66,948
Municipal bonds	2,464	2,135
Domestic corporate bonds	303,506	166,149
International bonds	18,275	16,628
Domestic stocks	778,484	1,005,785
International stocks	418,576	222,051
Real estate	89,629	84,282
Total Investments	1,718,398	1,563,978
Total assets	1,813,979	1,730,395
Liabilities:		
Accounts payable and accrued expenses	2,167	2,061
Retirement system liabilities	11,468	6,832
Securities lending collateral (Note 2)	47,104	108,858
Total liabilities	60,739	117,751
Net position:		
Net position restricted for pension benefits	1,716,478	1,580,556
Net Position restricted for post-employment healthcare benefits	36,762	32,088
Total net position	\$1,753,240	\$1,612,644

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
FIDUCIARY FUND - PENSION AND OTHER EMPLOYEE BENEFIT TRUST
(COMPONENT UNIT)
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(DOLLARS IN THOUSANDS)

	<u>2018</u>	<u>2017</u>
Additions:		
Contributions		
Employer	\$81,096	\$76,860
Plan members	<u>17,079</u>	<u>16,018</u>
Total contributions	<u>98,175</u>	<u>92,878</u>
Investment income:		
Net appreciation (depreciation) in fair value of investments		
Traded securities	123,096	176,883
Real estate	1,392	1,329
Interest	7,981	6,731
Dividends	22,218	21,014
Real estate operating income, net	<u>1,166</u>	<u>1,120</u>
Total investment income	155,853	207,077
Less:		
Investment expense	(4,037)	(4,607)
Borrowers' rebates and other agent fees on securities lending transactions	<u>(1,467)</u>	<u>(787)</u>
Net investment income	<u>150,349</u>	<u>201,683</u>
Total additions, net	<u>248,524</u>	<u>294,561</u>
Deductions:		
Benefits paid	105,984	98,152
Refund of contributions	393	465
Administrative expenses	<u>1,551</u>	<u>1,429</u>
Total deductions	<u>107,928</u>	<u>100,046</u>
Change in net position	140,596	194,515
Net position:		
Beginning of year	<u>1,612,644</u>	<u>1,418,129</u>
End of year	<u><u>\$1,753,240</u></u>	<u><u>\$1,612,644</u></u>

See accompanying notes to financial statements

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**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES
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A. Description of the Primary Government

The East Bay Municipal Utility District (the District) was formed in May 1923 under the provisions of the Municipal Utility District Act of 1921, as amended in 1941. The District is comprised of two financially independent entities: the Water System and the Wastewater System. These two entities are governed by the same elected seven-member Board of Directors which determines such matters as rates and charges for services, approval of contracts, and District policies. The Water System provides administrative and other support services to the Wastewater System. These costs are charged to the Wastewater System.

B. Description of the Component Unit

The District's Employees' Retirement System (the Employees' Retirement System or the Plan) has been reported as a Pension and Other Employee Benefit Trust fund (a fiduciary fund) in the accompanying basic financial statements and is discretely presented. The System provides retirement, disability, survivorship, and post-employment health insurance benefits for eligible directors, officers, and employees of the District. The System is administered by a Retirement Board composed of three members appointed by the Board of Directors of the District, two members elected by and from the active membership, and one (nonvoting) member elected by and from the retired membership of the System. Retirement Ordinance No. 40 (Ordinance) assigns the authority to establish Plan benefit provisions to the District's Board of Directors.

Copies of the audited financial statements of the Employees' Retirement System may be obtained by writing to the Controller, P.O. Box 24055, Oakland, CA 94623 or visit our website at <http://www.ebmud.com>.

C. Basis of Presentation

The accounts of the District are organized and operated on a fund basis. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, deferred outflows, liabilities, deferred inflows, net position, revenues, and expenses.

The basic financial statements include prior year comparative information. A complete presentation of the prior year information can be found in the District's financial statements for the year ended June 30, 2017.

The District reports the following major proprietary (enterprise) funds:

The **Water System** is engaged in the collection, transmission, and distribution of water to communities within Alameda and Contra Costa counties of California.

The **Wastewater System** is engaged in the interception and treatment of wastewater from residences and industries in the California communities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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Additionally, the District reports the following fiduciary fund:

The **Pension and Other Employee Benefit Trust** is used to account for the resources held by the Employees' Retirement System which provides retirement, disability, and survivorship benefits for eligible directors, officers, and employees of the District.

Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises – where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges. The Pension and Other Employee Benefit Trust fund is maintained to account for assets held by the Employees' Retirement System in a trustee capacity.

D. Basis of Accounting

Proprietary funds and the Pension and Other Employee Benefit Trust fund are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets, deferred outflows, liabilities and deferred inflows associated with operations are included on the balance sheet, and revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

Proprietary funds distinguish *operating* revenues and expenses from *non-operating* items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the District are charges to customers for sales and services. The District also recognizes wet weather facilities charges as operating revenue. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

When both restricted and unrestricted resources are available for use, it is the District's policy to use restricted resources first, then unrestricted resources as they are needed.

In addition, the accounting policies of the District conform to accounting policies generally accepted in the United States of America for water utilities. The accounts are maintained substantially in accordance with the Uniform System of Accounts for Water Utilities followed by investor-owned and major municipally owned water utilities.

Balance Sheet – The balance sheet is designed to display the financial position of the District. The District's fund equity is reported as net position, which is broken down into three categories defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets and related deferred inflows and outflows.
- Restricted – This component of net position consists of constraints placed on net position use through external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or law or regulations of other governments. It also pertains to constraints imposed by law or constitutional provisions or enabling legislation.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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- Unrestricted – This component of net position consists of net assets that do not meet the definition of “restricted” or “net investment in capital assets.”

Statement of Revenues, Expenses, and Changes in Net Position – The statement of revenues, expenses, and changes in net position is the operating statement for proprietary funds. Revenues are reported by major source. This statement distinguishes between operating and non-operating revenues and expenses and presents a separate subtotal for operating revenues, operating expenses, and other income.

E. Use of Estimates and Assumptions

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

F. Capital Assets

Utility Plant – at Original Cost

The cost of additions to utility plant and replacement of retired units of property are capitalized. Cost includes material, direct labor and fringe benefits, transportation, and such indirect items as engineering, supervision, and interest during construction based on the interest rate on outstanding debt of the system in the prior fiscal year as allowed by GASB 76. Repairs, maintenance, and minor purchases of equipment are charged to expenses as incurred.

The depreciated cost of capital assets, plus removal costs, less salvage, is charged to expense upon retirement.

Water Supply Management Program

Costs incurred in this program are debt funded and capitalized in construction in progress. These costs are transferred to utility plant upon completion of the project and depreciated over their useful life. Debt service costs on the debt used to finance the program are recovered in future through connection fees and rates and charges for service to those benefiting from the program.

Preliminary Survey and Investigation Costs

The District capitalizes initial costs incurred to study and evaluate certain potential long-term capital projects. These costs are transferred to property, plant and equipment upon completion of the project and are depreciated over the life of the asset. In the event the project is abandoned, these costs are expensed.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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Contract Water Rights

The District has contracted with the U.S. Bureau of Reclamation for water deliveries from the Central Valley Project (CVP) through February 2046 (Long Term Renewal Contract), with the anticipation of subsequent renewals of 40 year terms. Payments under the contract include reimbursement based on the amounts of water delivered to EBMUD of capital costs for CVP storage and conveyance facilities (EBMUD's current allocation is \$2,989) and the Operation & Maintenance Deficit (EBMUD's current balance is \$6,381). The Water Enterprise Fund capitalized the two components.

G. Depreciation

Depreciation of capital assets is computed on a straight-line basis using the estimated service lives of the related assets (5 to 100 years).

H. Restricted Assets

The District segregates cash and investments into funds that are "Restricted" and "Unrestricted." Funds are "restricted" when limitations on use of the resources are imposed by creditors, grantors, contributors, laws or regulations of other governments, or imposed by law through constitutional provision or by enabling legislation. "Unrestricted" resources are committed by the Board of Directors through the passage of a resolution, or constrained for a specific purpose by committees or officials with authority delegated by the Board. The exception is the Reserve for Capital Projects which is anticipated but not committed or constrained to be used for the District's capital improvement program.

Unrestricted cash and investments are further categorized into Operating and Capital Reserves:

Operating Reserves:

- Rate Stabilization Fund (RSF) reserve is established by Policy 4.02, as adopted by the Board of Directors in the biennial budget, to maintain at least 20% of projected annual water volume revenues for Water and at least 5% of annual operating and maintenance expenses for Wastewater. Funding of the RSF is consistent with the District's Bond indentures. In fiscal year 2014, the District combined the Rate Stabilization Fund referenced in the Bond indentures and the Contingency and Rate Stabilization Reserve referenced in Policy 4.02 into a single Rate Stabilization Fund reserve to enhance transparency.
- Working Capital reserve is established by Policy 4.02, as adopted by the Board of Directors in the biennial budget, to maintain at least three times the District's monthly net operating and maintenance expenses.
- Self-insurance reserve is established by Policy 4.02, as adopted by the Board of Directors in the biennial budget, to maintain a level based on the Actuarial Self-Insured Retention (SIR) funding recommendation for the following year's discounted loss and allocated loss adjustment expenses (ALAE) funding guidelines. Reserve amount should be calculated at a high (85%) confidence level. If an actuarial study is not available before close of the prior fiscal year end, the reserve shall equal 1.15 times the prior year reserve.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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- Workers' compensation reserve is established by Policy 4.02, as adopted by the Board of Directors in the biennial budget, to maintain a level based on the Actuarial SIR funding recommendation for the following year's discounted loss and ALAE funding guidelines. Reserve amount should be calculated at a high (85%) confidence level. If an actuarial study is not available before close of the prior fiscal year end, the reserve shall equal 1.15 times the prior year reserve.

Capital Reserves:

- Reserve for Capital Projects comprises the resources available for cash funding of the District's capital improvement program as projected in conjunction with the biennial budget.
- Reserve Funded CIP (Wastewater) balance is a specific designation [Board Motion No. 029-94] used to fund wet and dry weather eligible construction projects.
- Vehicle Replacement Fund [Board Motion No. 030-94] is financed by deposits based on internal user rate charges, and used to reimburse operational expenditures and vehicle replacement purchases.
- Equipment Replacement Fund was established by the District with the implementation of the Wastewater Capacity Fees effective July 1, 1984. The balance in this account represents funds set aside for future wastewater department equipment replacements.

Restricted funds include the following:

- Debt funded construction funds are the proceeds of bond or commercial paper issues that are restricted for use on eligible projects in the District's capital program.
- Capitalized Interest fund is restricted by the District's bond indenture for the purpose of defraying that bond issue's debt service payments for a specified period.
- Bond Interest and Redemption fund is required, under the District's bond indentures, in order for the District to transfer funds to the Trustee for the payment of principal and interest on the outstanding bonds one business day prior to the date such payment is due. The District uses the Bond Interest and Redemption Fund to segregate funds accumulated for such payments. In addition, under certain of the interest rate swap agreements related to the District's outstanding bonds, the District is required to post collateral to the swap counterparty to the extent that the District's total exposure for termination payments under the swap agreement exceeds the threshold amount specified in the applicable swap agreement. The District also uses the Bond Interest and Redemption Fund to segregate District funds held by the applicable custodian to satisfy this collateral posting obligation.
- Debt Service Reserve fund is created and required to be maintained at a specified level in connection with certain series of the District's outstanding bonds. Amounts in a Bond Reserve Fund may only be used (a) for the payment of principal of and interest on the related series of bonds in the event the District fails to transfer the required payment from the related system Revenue Fund (the respective designated part of the General Fund) (b) for the payment of redemption of all of the related series of bonds then outstanding or (c) for the payment of the final principal and interest payments on the related series of bonds.
- Funds received for construction reflect advances received from applicants for work to be performed by the District and the unspent future water supply component of system capacity charges. This fund is used for the construction of major facilities, applicant requested services, and the design and construction of water supply improvement program projects.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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- FERC partnership fund of \$2 million was established January 11, 1999, in compliance with Federal Energy Regulatory Commission (FERC) order which brought resolution to its Mokelumne River Proceeding. The District manages the fund and income derived from investing the funds to provide operating support to the Joint Settlement Agreement with US Fish and Wildlife and California Fish and Game to protect the Mokelumne River Ecosystem from Pardee Reservoir to the Delta. The principal and any unused earnings shall remain the property of the District and will revert to the District upon expiration of the agreement in March 2031 or upon withdrawal of any party to the agreement.
- Monetary Reserve represents money on deposit in the name of the District with the Automated Power Exchange Inc. (APX) in accordance with the terms and conditions of the Automated Power Exchange Inc. California Master Service Agreement of July 15, 1999, entered between the District and APX for the sale and purchase of electric power. The funds held on deposit shall be withdrawn by the Depository and Clearing Agent in the event that sufficient funds are not deposited in the District settlement account to cover power exchange transactions.

I. Deferred Amount on Bond Refundings

Gains and losses incurred in connection with debt refunding transactions are deferred and amortized over the shorter of the life of the refunded debt or the new debt.

J. Cash and Cash Equivalents

For purposes of the statement of cash flows, the District considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents.

K. District Investments

Investments are stated at fair value. Included in investment income (loss) is the net change in the fair value of investments, which consists of the realized gains or losses and the unrealized appreciation (depreciation) of those investments.

Measurement of the fair value of investments is based upon quoted market prices, if available. The estimated fair value of investments that have no quoted market price is determined based on equivalent yields for such securities or for securities of comparable maturity, quality, and type as obtained from market makers.

Each of the financial instruments invested in by the District represents a potential concentration of credit risk. However, as the portfolio and the components of the various instruments are diversified, and issuers of securities are dispersed throughout many industries and geographic locations, the concentrations of credit risk are limited.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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L. Retirement System Investments

Investments are reported at fair value. Securities and bonds traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that have no quoted market price are reported at estimated fair value, which is determined based on yields equivalent for such securities or for securities of comparable maturity, quality, and type as obtained from market makers. Measurement of the fair value of real estate investments is estimated by the investment managers and reflects both internal and independent appraisals of real estate properties.

The System presents in the Statements of Changes in Plan Net Position the net change in the fair value of its investments, which consists of the realized gains or losses and the unrealized appreciation (depreciation) on those investments. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Each of the financial instruments invested in by the System represents a potential concentration of credit risk. However, as the portfolio and the components of the various instruments are diversified and issuers of securities are dispersed throughout many industries and geographical locations, the concentrations of credit risk are limited.

The System invests in a combination of stocks, bonds, fixed income securities, real estate, and other investment securities. These investments are exposed to various risks, such as interest rate and market risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and those such changes could materially affect the amounts reported in the Statement of Plan Net Position.

Retirement Board policies permit the System to use investments of the Plan to enter into securities lending transactions, which are loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return collateral for the same securities in the future. The System's securities custodian is an agent in lending the Plan's securities for cash collateral, U.S. government securities, and irrevocable letters of credit of 102% for domestic securities and 105% for international securities lent.

As of June 30, 2018, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. Contracts with the lending agent require them to indemnify the System under certain circumstances if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the System for income distributions by the securities issuers while the securities are on loan. The risk of any loss of collateral or investment of cash collateral (including a loss of income or principal, or loss of market value thereon) lies with the System, except for losses resulting from negligence or intentional misconduct of the agent in performing the duties allocated under the securities lending agreement with respect to collateral. During the year ended June 30, 2018, there were no violations of legal or contractual provisions, and no borrower or lending agent default losses known to the securities lending agent.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

In lending securities, cash collateral is invested in the lending agent's short-term investment pool, which as of June 30, 2018, had a weighted average maturity of 29 days. The relationship between the maturities of the investment pool and the System's loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the System cannot determine. Cash collateral may also be invested separately in term loans, in which case the maturity of the collateral investment generally matches the term of the loan. Noncash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of overall loans for the System was approximately 87 days. There are no dividends or coupon payments owing on the securities lent. Cash received as collateral on securities lending transactions is reported as an asset of the System with a corresponding liability.

As of June 30, 2018, the fair value of securities on loan was \$47,104. The total cash and noncash collateral held by the System's custodian to secure these securities on loan was valued at \$45,937 (all cash collateral).

M. Material and Supplies

Material and supplies inventories are valued at cost, which approximates market, using the average-cost method.

N. Compensated Absences

Compensated absences as of June 30, 2018 and 2017, are included on the balance sheet in accounts payable and accrued expenses. In previous years, trends have shown that the District employees utilize the accruals annually, therefore, amounts payable are accrued and reported as a current liability on the financial statements.

The changes in compensated absences were as follows:

	Water System		Wastewater System		Total	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Beginning Balance	\$26,545	\$27,598	\$4,130	\$4,291	\$30,675	\$31,889
Additions	30,153	26,726	5,137	4,414	35,290	31,140
Payments	(28,192)	(27,779)	(4,440)	(4,575)	(32,632)	(32,354)
Total	<u>\$28,506</u>	<u>\$26,545</u>	<u>\$4,827</u>	<u>\$4,130</u>	<u>\$33,333</u>	<u>\$30,675</u>

O. Revenue

Water billings include charges for water flow, elevation, and a monthly meter charge. Customer water meters are read on a cyclical basis throughout a monthly or bimonthly period. Bills are rendered and revenue is recognized in the period that meters are read.

Wastewater treatment billings are a combination of flow, strength charges, and a monthly service charge. Customer bills are rendered on a cyclical basis throughout a monthly or bimonthly period, and revenue is recognized in the period in which bills are rendered.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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Wet weather facilities charges are designed to finance the operating and capital costs related to wet weather sewage flows and are billed annually on the property tax bill.

P. Interest Rate Swap

The District enters into interest rate swap agreements to modify interest rates on some outstanding debt. The net interest is recorded in the financial statements annually.

In June 2008, GASB issued Statement No. 53, Accounting and Financial Reporting for Derivative Instruments (GASB 53). The statement specifically requires governments to measure and report most derivative instruments at fair value in their financial statements that are prepared using the economic resources measurement focus and the accrual basis of accounting. The requirement of reporting the derivative instruments at fair value on the face of the basic financial statements gives the users of those statements a clearer look into the risks their governments are sometimes exposed to when they enter into these transactions and how those risks are managed. The statement also addresses hedge accounting requirements and improves disclosures, providing a summary of the government's derivative instrument activity, its objectives for entering into derivative instruments, and their significant terms and risks. The District implemented GASB 53 in fiscal 2010.

Q. Deferred Outflows/Inflows of Resources

In addition to assets, the balance sheet will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position or fund balance that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then.

In addition to liabilities, the balance sheet will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position or fund balance that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time.

R. Implementation of Governmental Accounting Standards Board (GASB) Pronouncements

GASB Statement No. 75 – Accounting and Financial Reporting for Post-employment Benefits Other Than Pensions. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for post-employment benefits other than pensions (other post-employment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. This Statement results from a comprehensive review of the effectiveness of existing standards of accounting and financial reporting for all post-employment benefits (pensions and OPEB) with regard to providing decision-useful information, supporting assessments of accountability and inter-period equity, and creating additional transparency. The provisions of this statement are effective for financial statements for the periods beginning after June 15, 2017, therefore, the District implemented this statement in fiscal year ending June 30, 2018, which required a restatement to the District's financial statements. As a result, the beginning net positions of the Water Systems Fund were restated and had a net decrease of \$92,277 and the Wastewater Systems Fund had a net decrease of \$15,895.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)
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GASB Statement No. 81 – *Irrevocable Split-Interest Agreements*. This Statement requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement. Furthermore, this Statement requires that a government recognize assets representing its beneficial interests in irrevocable split-interest agreements that are administered by a third party, if the government controls the present service capacity of the beneficial interests. This Statement requires that a government recognize revenue when the resources become applicable to the reporting period.

GASB Statement No. 85 – *Omnibus 2017*. The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]).

GASB Statement No. 86 – *Certain Debt Extinguishment Issues*. The primary objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources—resources other than the proceeds of refunding debt—are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance.

S. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The District categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels based on the extent to which inputs used in measuring fair value are observable in the market.

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are inputs – other than quoted prices included within level 1 – that are observable for an asset or liability, either directly or indirectly.

Level 3 inputs are unobservable inputs for an asset or liability.

If the fair value of an asset or liability is measured using inputs from more than one level of the fair value hierarchy, the measurement is considered to be based on the lowest priority level input that is significant to the entire measurement.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS

A. Classification

Reconciliations of cash and investments reported on the financial statements as of June 30, 2018, are as follows:

	Water System	Wastewater System	Total
<i>District Enterprise Funds:</i>			
Cash and investments included in current assets	\$441,259	\$112,249	\$553,508
Cash and investments included in restricted assets	50,115	18	50,133
Total District cash and investments	491,374	112,267	603,641
Less investments	(448,401)	(54,297)	(502,698)
Cash and cash equivalents	\$42,973	\$57,970	\$100,943
<i>System Pension Trust Funds:</i>	Pension Plan Benefits	Post-employment Healthcare Benefits	Total
Cash and cash equivalents	\$40,348	\$848	\$41,196
Invested securities lending collateral	46,134	970	47,104
Retirement system investments	1,683,014	35,384	1,718,398
Total System cash and investments	\$1,769,496	\$37,202	\$1,806,698

Reconciliations of cash and investments reported on the financial statements as of June 30, 2017, are as follows:

	Water System	Wastewater System	Total
<i>District Enterprise Funds:</i>			
Cash and investments included in current assets	\$519,136	\$100,878	\$620,014
Cash and investments included in restricted investments	47,784	18	47,802
Total District cash and investments	566,920	100,896	667,816
Less investments	(342,054)	(56,705)	(398,759)
Cash and cash equivalents	\$224,866	\$44,191	\$269,057
<i>System Pension Trust Funds:</i>	Pension Plan Benefits	Post-employment Healthcare Benefits	Total
Cash and cash equivalents	\$48,032	\$956	\$48,988
Invested securities lending collateral	106,733	2,125	108,858
Retirement system investments	1,533,453	30,525	1,563,978
Total System cash and investments	\$1,688,218	\$33,606	\$1,721,824

B. District Enterprise Fund Investments Authorized by the California Government Code and the District's Investment Policy

The District's Investment Policy and the California Government Code allow the District to invest in the following, provided the credit ratings of the issuers are acceptable to the District; and approved percentages and maturities are not exceeded. The table below also identifies certain provisions of the California Government Code, or the District's Investment Policy where the District's Investment Policy is more restrictive and provides information as to the limitations as they relate to interest rate risk, credit risk and concentration risk.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)

Authorized Investment Type	Maximum Maturity	Minimum Credit Quality	Maximum in Portfolio	Maximum Investment in One Issuer/Fund
U.S. Treasury Bonds, Notes and Bills	5 Years	N/A	up to 100%	N/A
U.S. Government Agency and U.S. Government-Sponsored Enterprise Obligation	5 Years	N/A	up to 100% \$65,000	40% in each Agency
State of California Local Agency Investment Fund (LAIF Pool)	N/A	N/A	per account	N/A
California Asset Management Program (CAMP)	N/A	AAAm	20%	N/A
Money Market Mutual Funds	N/A	AAAm	20%	5%
Certificates of Time Deposit	1 Year	AA-	20%	\$250
Negotiable Certificates of Deposit	5 Years	AA-	20%	\$250
Commercial Paper	270 Days	A-1+, P1 or F1+	20%	10%
Medium Term Corporate Notes	5 Years	AA- and A	30%	10%
Repurchase Agreements	270 Days	N/A	20%	N/A
Municipal Bonds	5 Years	AA- and A	40%	20%

The District does not enter into reverse repurchase agreements.

C. District Enterprise Fund Investments Authorized by Debt Agreements

The District must maintain required amounts of cash and investments with trustees or fiscal agents under the terms of certain debt issues. These funds are unexpended bond proceeds or are pledged reserves to be used if the District fails to meet its obligations under these debt issues. The California Government Code requires these funds to be invested in accordance with District resolutions, bond indentures or State statutes. The table below identifies the investment types that are authorized for investments held by fiscal agents. The table also identifies certain provisions of these debt agreements:

Authorized Investment Type	Minimum Credit Quality
Repurchase Agreements	Top Four Rating Category
U. S. Treasury Bonds, Notes and Bills	N/A
U.S. Government Agency and U.S. Government-Sponsored Enterprise Obligations	N/A
State Obligations	Not lower than the District's bond rating
Commercial Paper	Top Rating Category
Negotiable Certificates of Deposit	FDIC insured or collateralized
Time Certificates of Deposit – Banks or Savings and Loans	FDIC insured or collateralized
Corporate Notes (up to 3 years)	Top Short-Term Rating Category
Corporate Bonds (longer than 3 years)	Not lower than District's bond rating
Variable Rate Obligations	Top Short-Term Rating Category
Cash Sweep Agreements	Top Rating Category
Guaranteed Investment Contract	Not lower than District's bond rating
Shares of Beneficial Interest	Top Rating Category

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)
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D. Employees Retirement System Authorized Investment Strategy

The System's investment policies authorize the System to invest in financial instruments in three broad investment categories: equity, fixed income, and real estate. These financial instruments can include, but are not limited to, corporate bonds, commercial paper, U.S. government securities, common and preferred stock, real estate investment trusts, and mutual funds. Fixed income investments may include futures and options contracts in order to provide added flexibility in managing the fixed income portfolio. The following is a summary of the System investment policy adopted by the System with on March 16, 2017.

The Retirement Board is authorized to designate multiple investment managers to manage the assets under their supervision subject to the laws of the State of California and the Investment Guidelines established by the Retirement Board. Allocation of assets to the investment managers are determined by the Retirement Board to accommodate changing conditions and laws. On March 15, 2018, the System adopted an updated asset allocation, which is shown in the table below. The System investment policy has not been updated to reflect this change.

US Equity	25%
Non-US Equity	25%
Core Fixed Income	20%
Non-Core Fixed Income	5%
Covered Calls	20%
Real Estate	5%

The composite asset allocation goal is pursued by the System on a long-term basis and revised if significant changes occur within the economic and/or capital market environment. Progress toward the goal is reviewed at least annually.

The Director of Finance is authorized to transfer assets from any asset class which varies the long-term asset allocation goal by more than 3% at the end of two or more consecutive quarters, allocating the excess assets to a manager or group of managers with the exception of real estate managers. The Director of Finance is further authorized to withdraw assets from assigned managers as necessary to efficiently meet operating needs.

The equity and fixed income asset allocations may vary by up to $\pm 5\%$ from the long-range asset allocation goals.

The core fixed income target allocation (10% of the total portfolio) will primarily consist of U.S. denominated fixed income securities. Individual managers may invest up to 20% of their assets in international fixed income securities.

The non-core fixed income target allocation (10% of the total portfolio) will primarily consist of U.S. denominated fixed income securities. Individual managers may invest up to 35% of their assets in international fixed income securities. It is expected that this allocation may have a material allocation to below investment grade securities.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)
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The domestic equity allocation target (40% of the total portfolio) will consist of approximately 37% in large cap market related growth and value (average risk) securities, 3% in small capitalized securities, and 20% in international securities. The international equity allocation target will consist of approximately 17% international equities and 3% emerging markets. It is expected this allocation will allow for exposure to mid cap securities based on tactical decisions by the Retirement Fund's large cap and small cap domestic equity managers.

The covered calls target allocation (20% of the total portfolio) may consist of a combination of Chicago Board Options Exchange S&P 500 BuyWrite Index (the "BXM Index") replication strategy and/or active non-replication strategies and their underlying domestic equity portfolios.

The international equity target allocation (15% of the total portfolio) will consist of approximately 12% in international equities and 3% in emerging markets equities.

The real estate target allocation (5% of the total portfolio) will consist of either equity (ownership) and/or fixed income participation in commercial, industrial, or residential properties. Investments may include interests in mortgages pools secured by loans of underlying properties.

The allocation goal recognizes that at any time equity and fixed income managers may have transactional cash on hand and the District will maintain enough cash as working capital to effectively meet cash flow demands on the system. However, there is no specific allocation for cash as all investable cash is allocated to specific investment disciplines.

Holding of securities issued by the United States Government or any of its agencies need not be diversified. Securities of any one issuer with maturities of more than one year, other than the United States Government or any of its agencies, shall not exceed 5% of the value of the total portfolio. Securities of any one issuer of foreign government issues shall not exceed 10% of the value of the total portfolio at the time of purchase. Fixed income managers have the authority to make international investments, not to exceed 20% of their total portfolio.

The use of futures and options in the fixed income accounts may be used as part of their portfolio management strategy and will be incidental to their securities trading activities. The resulting aggregate risk profile (volatility) of the portfolio will not be different from that permissible by using securities only.

Short (sold) options positions will generally be hedged, either with current portfolio security holding, other options or futures options. Mortgage derivatives with significant short option characteristics will not exceed 5% of the portfolio, and will generally be a) offset by position in other mortgage derivatives, or b) offset by other portfolio positions.

No derivatives will be executed which will increase the value at risk of the portfolio by more than 25 basis points of the portfolio's market value.

Structured notes with significant short options positions or increasing leverage will not be purchased, and in no case will structured notes exceed 5% of portfolio value. Structured notes issued by the U.S. Government (treasuries and agencies) will be considered allowable investments, and are restricted to 25%.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)

Fixed income managers are authorized to use futures and options contracts to supplement their investment capabilities to provide flexibility in managing the fixed income portfolios and reduce the cost of implementing strategies to respond to changing market conditions without incurring the higher transaction costs associated with buying and selling specific securities. These transactions are authorized to enable the manager to reduce the exposure of the portfolio to interest rate changes by reducing or increasing the duration of the portfolio without selling any of the actual holding.

No more than 5% of the portfolio will be invested in original futures margin and options premiums, exclusive of any in-the-money portion of the premiums.

Each equity portfolio shall be diversified. When fully invested in equities or at its normal level of investment, a minimum of 20 securities should be held. At no time may a single equity investment exceed 5% of the value of the total retirement fund.

Each international equity portfolio shall be diversified. When fully invested in international equities or at its normal level of investment, a minimum of 20 securities should be held. At no time may a single international equity investment exceed 5% of the value of the total retirement fund.

E. Fair Value Hierarchy

The District 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 fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The following is a summary of the fair value hierarchy of the fair value of investments of the District as of June 30, 2018 and 2017:

District Enterprise Funds:

The following is a summary of the fair value hierarchy of the fair value of investments of the District as of June 30, 2018:

Investment Type	Level 2	Total
Investments by Fair Value Level:		
U.S. Government-Sponsored Enterprise Agencies:		
Non-callable	\$55,381	\$55,381
Callable	400,091	400,091
Corporate Securities	21,297	21,297
Municipal Bonds	25,928	25,928
Total Investments at Fair Value	\$502,697	502,697
Investments Measured at Net Asset Value Per Share:		
California Asset Management Program		10,542
Investments Measured at Amortized Cost:		
California Local Agency Investment Fund		60,372
Mutual Funds (U.S. Securities)		8,676
Total Investments		582,287
Cash in banks		21,354
Total District Cash and Investments		\$603,641

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

In fiscal year 2018, the U.S. Government-Sponsored Enterprise Agency securities totaled \$455,472, Corporate securities totaled \$21,297, and Municipal Bonds total \$25,928, are classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by various pricing vendors. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

The following is a summary of the fair value hierarchy of the fair value of investments of the District as of June 30, 2017:

Investment Type	Level 2	Total
Investments by Fair Value Level:		
U.S. Government-Sponsored Enterprise Agencies:		
Non-callable	\$67,945	\$67,945
Callable	311,351	311,351
Corporate Securities	3,515	3,515
Municipal Bonds	15,947	15,947
	<u>\$398,758</u>	<u>398,758</u>
Investments Measured at Net Asset Value Per Share:		
California Asset Management Program		155,098
Investments Measured at Amortized Cost:		
California Local Agency Investment Fund		60,373
Mutual Funds (U.S. Securities)		43,285
Total Investments		<u>657,514</u>
<i>Cash in banks</i>		<u>10,302</u>
Total District Cash and Investments		<u>\$667,816</u>

In fiscal year 2017, the U.S. Government-Sponsored Enterprise Agency securities totaled \$379,296, Corporate securities totaled \$3,515, and Municipal Bonds total \$15,947, are classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by various pricing vendors. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)

System Pension Trust Fund:

The following is a summary of the fair value hierarchy of the fair value of investments of the Pension Trust Fund as of June 30, 2018:

Investment Type	Level 1	Level 2	Level 3	Total
Investments by Fair Value:				
Asset Backed Securities		\$15,638		\$15,638
Equity Securities	\$633,179		\$630	633,809
Commercial Mortgage - Backed Securities		9,808		9,808
Commercial Paper		5,340		5,340
Corporate Bonds		87,409		87,409
Government Agencies		36,639		36,639
Government Bonds		37,354		37,354
Government Mortgage - Backed Securities		30,117		30,117
Government Issued				
Commercial Mortgage - Backed Securities		44		44
Non-Government Backed				
Commercial Mortgage Obligation		1,974		1,974
Index Linked Government Bonds		1,542		1,542
Municipal Bonds		2,463		2,463
Real Estate			37,231	37,231
Other Fixed Income		8,146		8,146
Short Term Bills and Notes		1,765		1,765
Total Investments at Fair Value	<u>\$633,179</u>	<u>\$238,239</u>	<u>\$37,861</u>	<u>909,279</u>
Investments Measured at Net Asset Value:				
Mutual Funds				809,119
Investments Measured at Amortized Cost:				
California Local Agency Investment Fund				4,582
Invested securities lending collateral				47,104
Cash in banks				<u>36,614</u>
Total District Cash and Investments				<u><u>\$1,806,698</u></u>

During fiscal year 2018, investments classified in Level 1 of the fair value hierarchy, valued at \$633,179, are valued using quoted prices in active markets. \$238,239 of investments classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by various pricing vendors. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Investments totaling \$37,861 classified in Level 3 of the fair value hierarchy are valued using appraisals and estimates by investment managers. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by our custodian bank.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

The following is a summary of the fair value hierarchy of the fair value of investments of the Pension Trust Fund as of June 30, 2017:

Investment Type	Level 1	Level 2	Level 3	Total
Investments by Fair Value:				
Asset Backed Securities		\$15,044		\$15,044
Equity Securities	\$949,381	503	\$962	950,846
Collateralized Bonds		410		410
Commercial Mortgage - Backed Securities		7,828		7,828
Corporate Bonds		79,036		79,036
Government Agencies		11,503		11,503
Government Bonds		19,738		19,738
Government Mortgage - Backed Securities		26,899		26,899
Government Issued				
Commercial Mortgage - Backed Securities		202		202
Non-Government Backed				
Commercial Mortgage Obligation		914		914
Index Linked Government Bonds		8,605		8,605
Municipal Bonds		2,135		2,135
Real Estate			34,674	34,674
Other Fixed Income		14,495	2	14,497
Total Investments at Fair Value	<u>\$949,381</u>	<u>\$187,312</u>	<u>\$35,638</u>	<u>1,172,331</u>
Investments Measured at Net Asset Value:				
Mutual Funds				391,647
Investments Measured at Amortized Cost:				
California Local Agency Investment Fund				3,263
Invested securities lending collateral				108,858
Cash in banks				<u>45,725</u>
Total District Cash and Investments				<u>\$1,721,824</u>

During fiscal year 2017, investments classified in Level 1 of the fair value hierarchy, valued at \$949,381, are valued using quoted prices in active markets. \$187,312 of investments classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by various pricing vendors. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Investments totaling \$35,638 classified in Level 3 of the fair value hierarchy are valued using appraisals and estimates by investment managers. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by our custodian bank.

F. Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the market value of an investment. Normally, the longer the maturity of an investment, the greater the sensitivity of its market value to changes in market interest rates. The District generally manages its interest rate risk by holding investments to maturity.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

Information about the sensitivity of the market values of the District's and System's investments (including investments held by bond trustees) to market interest rate fluctuations is provided by the following table that shows the distribution of the District's investments by maturity or earliest call date.

District Enterprise Funds:

Information about the sensitivity of the fair value of the District's investments to market interest rate fluctuations is provided in the following table that shows the distribution of the District's investments by maturity or earliest call date for June 30, 2018:

Investment Type	12 Months or less	13 to 24 Months	25 to 60 Months	Total
U.S. Government-Sponsored Enterprise Agencies:				
Non-callable	\$46,131	\$9,250		\$55,381
Callable	169,200	118,490	\$112,401	400,091
Corporate Securities	18,329	2,968		21,297
Municipal Bonds	13,054	6,824	6,050	25,928
Mutual Funds (U.S. Securities)	8,676			8,676
California Asset Management Program	10,542			10,542
California Local Agency Investment Fund	60,372			60,372
Total Investments	<u>\$326,304</u>	<u>\$137,532</u>	<u>\$118,451</u>	582,287
Cash in banks				21,354
Total District Cash and Investments				<u>\$603,641</u>

Information about the sensitivity of the fair value of the District's investments to market interest rate fluctuations is provided in the following table that shows the distribution of the District's investments by maturity or earliest call date for June 30, 2017:

Investment Type	12 Months or less	13 to 24 Months	25 to 60 Months	Total
U.S. Government-Sponsored Enterprise Agencies:				
Non-callable	\$23,931	\$32,302	\$11,712	\$67,945
Callable	12,507	90,282	\$208,562	311,351
Corporate Securities	3,014	501		3,515
Municipal Bonds	6,505	8,201	1,241	15,947
Mutual Funds (U.S. Securities)	43,285			43,285
California Asset Management Program	155,098			155,098
California Local Agency Investment Fund	60,373			60,373
Total Investments	<u>\$304,713</u>	<u>\$131,286</u>	<u>\$221,515</u>	657,514
Cash in banks				10,302
Total District Cash and Investments				<u>\$667,816</u>

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

System Pension Trust Fund:

Information about the sensitivity of the fair value of the Pension Trust Fund's investments to market interest rate fluctuations is date provided in the following table that shows the distribution of the District's investments by maturity or earliest call for June 30, 2018:

Investment Type	Less than 12 Months	12 to 72 Months	72 to 120 Months	More than 120 Months	Maturity not Determined	Total
Asset Backed Securities	\$7	\$10,182	\$3,230	\$2,219		\$15,638
Equity Securities	633,809					633,809
Commercial Mortgage						
-Backed Securities			401	9,407		9,808
Commercial paper	5,340					5,340
Corporate Bonds	8,412	49,198	15,631	14,168		87,409
Government Agencies		10,044	23,099	3,496		36,639
Government Bonds	189	9,635	17,025	10,505		37,354
Government Mortgage						
-Backed Securities		3	994	29,120		30,117
Government Issued Commercial Mortgage						
-Backed Securities		44				44
Non-Government Backed						
Collateralized Mortgage Obligation			153	1,821		1,974
Index Linked Government Bonds			1,542			1,542
Municipal Bonds		706		1,757		2,463
Mutual Funds					809,119	809,119
Real Estate					37,231	37,231
Other Fixed Income		8,146				8,146
Short Term Bills and Notes	1,765					1,765
Total System Investments	\$649,522	\$87,958	\$62,075	\$72,493	\$846,350	\$1,718,398

Information about the sensitivity of the fair value of the Pension Trust Fund's investments to market interest rate fluctuations is date provided in the following table that shows the distribution of the District's investments by maturity or earliest call for June 30, 2017:

Investment Type	Less than 12 Months	12 to 72 Months	72 to 120 Months	More than 120 Months	Maturity not Determined	Total
Asset Backed Securities		\$10,005	\$2,950	\$2,089		\$15,044
Equity Securities	\$950,846					950,846
Collateralized Bonds			410			410
Commercial Mortgage						
- Backed Securities			130	7698		7,828
Corporate Bonds	15,867	38,417	13,548	11204		79,036
Government Agencies	219	5,484	5,256	544		11,503
Government Bonds	1,186	7,584	6,758	4210		19,738
Government Mortgage						
- Backed Securities			594	26305		26,899
Government Issued Commercial Mortgage						
-Backed Securities	82	120				202
Non-Government Backed						
Collateralized Mortgage Obligation					\$914	914
Index Linked Government Bonds		1,835	5,417	1353		8,605
Municipal Bonds		426		1709		2,135
Mutual Funds					391647	391,647
Real Estate					34674	34,674
Other Fixed Income	136	14,361				14,497
Total System Investments	\$968,336	\$78,232	\$35,063	\$55,112	\$427,235	\$1,563,978

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)

The District and System are participants in the Local Agency Investment Fund (LAIF) that is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California. They report their investment in LAIF at the market value amount provided by LAIF, which is the same as the value of the pool share. The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis. Included in LAIF's investment portfolio are collateralized mortgage obligations, mortgage-backed securities, other asset-backed securities, loans to certain state funds, and floating rate securities issued by federal agencies, government-sponsored enterprises, United States Treasury Notes and Bills, and corporations. On June 30, 2018, these investments matured in an average of 193days.

The System's investments include the following investments that are highly sensitive to interest rate fluctuations to a greater degree than already indicated above as of June 30, 2018 and 2017:

Highly Sensitive Investments	Fair Value at Year End
Government Mortgage - Backed Securities	\$30,117
Commercial Mortgage - Backed Securities	9,808
Government Issued Commercial Mortgage - Backed Securities	44
Highly Sensitive Investments	Fair Value at Year End
Government Mortgage - Backed Securities	\$26,899
Commercial Mortgage - Backed Securities	7,828
Government Issued Commercial Mortgage - Backed Securities	202

G. Credit Risk

Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical credit rating organization.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

District Enterprise Funds:

Presented below is the actual rating as of June 30, 2018 for each investment type as provided by Moody's.

Investment Type	Aaa	Aa1	Aa2	Aa3	Total
U.S. Government-Sponsored					
Non-Callable	\$55,381				\$55,381
Callable	400,091				400,091
Corporate Securities	11,143	\$2,968		\$7,186	21,297
Municipal Bonds	2,616		\$496	5,241	8,353
Mutual Funds (U.S. Securities)	8,676				8,676
Totals	<u>\$477,907</u>	<u>\$2,968</u>	<u>\$496</u>	<u>\$12,427</u>	<u>493,798</u>
<i>Not rated:</i>					
Municipal Bonds					17,575
California Asset Management Program					10,542
California Local Agency Investment Fund					60,372
Cash in Banks					<u>21,354</u>
Total District Cash and Investments					<u>\$603,641</u>

Presented below is the actual rating as of June 30, 2017 for each investment type as provided by Moody's.

Investment Type	Aaa	Aa2	Aa3	Total
U.S. Government-Sponsored				
Non-Callable	\$67,945			\$67,945
Callable	311,351			311,351
Corporate Securities	3,515			3,515
Municipal Bonds	250	\$2,923	\$8,217	11,390
Mutual Funds (U.S. Securities)	43,285			43,285
Totals	<u>\$426,346</u>	<u>\$2,923</u>	<u>\$8,217</u>	<u>437,486</u>
<i>Not rated:</i>				
Municipal Bonds				4,557
California Local Agency Investment Fund				60,373
California Asset Management Program				155,098
Cash in Banks				<u>10,302</u>
Total District Cash and Investments				<u>\$667,816</u>

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

System Pension Trust Fund:

Presented below is the actual rating as of June 30, 2018 for each investment type as provided by Moody's.

Investment Type	Aaa	Aa	A	Baa	Ba	U.S. Government Guaranteed	Not Rated	Total
Asset Backed Securities	\$8,280	\$499	\$630	\$189	\$184		\$5,856	\$15,638
Equity Securities							633,809	633,809
Commercial Mortgage								
-Backed Securities	5,094			513			4,201	9,808
Commercial paper							5,340	5,340
Corporate Bonds	3,390	11,789	45,581	23,965	2,255		429	87,409
Government Agencies	33,643			1,333		\$1,663		36,639
Government Bonds	35,917	315	808	314				37,354
Government Mortgage								
-Backed Securities			217			29,505	395	30,117
Government Issued Commercial Mortgage								
-Backed Securities						44		44
Non-Government Backed								
Collateralized Mortgage Obligation	1,517		88	349			20	1,974
Index Linked Government Bonds	1,542							1,542
Municipal Bonds		2,333					130	2,463
Mutual Funds							809,119	809,119
Real Estate							37,231	37,231
Other Fixed Income							8,146	8,146
Short Term Bills and Notes						1,765		1,765
Total System Investments	<u>\$89,383</u>	<u>\$14,936</u>	<u>\$47,324</u>	<u>\$26,663</u>	<u>\$2,439</u>	<u>\$32,977</u>	<u>\$1,504,676</u>	<u>\$1,718,398</u>

Presented below is the actual rating as of June 30, 2017 for each investment type as provided by Moody's.

Investment Type	Aaa	Aa	A	Baa	B	Ba	U.S. Government Guaranteed	Not Rated	Total
Asset Backed Securities	\$9,885	\$490	\$445	\$629	225			\$3,370	\$15,044
Equity Securities								950,846	950,846
Collateralized Bonds	410								410
Commercial Mortgage									0
-Backed Securities	4,101							3,727	7,828
Corporate Bonds	1,252	13,487	38,059	23,791	1306	20		1,121	79,036
Government Agencies	10,176			1,108			\$219		11,503
Government Bonds	18,133		646				959		19,738
Government Mortgage									
-Back Securities			369				26,064	466	26,899
Government Issued Commercial									
Mortgage - Backed Securities							202		202
Index Linked Government Bonds	8,605								8,605
Municipal Bonds		2,135							2,135
Non-Government Backed									0
Commercial Mortgage Obligation	366	319		153				76	914
Mutual Funds								391,647	391,647
Real Estate								34,674	34,674
Other Fixed Income								14,497	14,497
Total System Investments	<u>\$52,928</u>	<u>\$16,431</u>	<u>\$39,519</u>	<u>\$25,681</u>	<u>\$1,531</u>	<u>\$20</u>	<u>\$27,444</u>	<u>\$1,400,424</u>	<u>\$1,563,978</u>

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 2 - CASH AND INVESTMENTS (Continued)

H. Concentration Risk

Significant District investments in the securities of any individual issuers, other than U. S. Treasury securities, LAIF, and mutual funds, are set forth below as of June 30, 2018:

Reporting Unit	Issuer	Investment Type	Reported Amount
District-Wide			
	FHLMC	Federal Agency Securities	\$206,007
	FNMA	Federal Agency Securities	89,818
	FHLB	Federal Agency Securities	88,663
	FFCB	Federal Agency Securities	69,271
Major Funds:			
Water System			
	FHLMC	Federal Agency Securities	184,926
	FHLB	Federal Agency Securities	83,082
	FNMA	Federal Agency Securities	72,607
	FFCB	Federal Agency Securities	66,975
Wastewater System			
	FHLMC	Federal Agency Securities	21,081
	FNMA	Federal Agency Securities	17,212
	FHLB	Federal Agency Securities	5,580

Significant District investments in the securities of any individual issuers, other than U. S. Treasury securities, LAIF, and mutual funds, are set forth below as of June 30, 2017:

Reporting Unit	Issuer	Investment Type	Reported Amount
District-Wide			
	FHLMC	Federal Agency Securities	\$178,900
	FNMA	Federal Agency Securities	93,317
	FHLB	Federal Agency Securities	85,512
Major Funds:			
Water System			
	FHLMC	Federal Agency Securities	155,891
	FHLB	Federal Agency Securities	77,032
	FNMA	Federal Agency Securities	73,128
Wastewater System			
	FHLMC	Federal Agency Securities	23,009
	FNMA	Federal Agency Securities	20,189
	FHLB	Federal Agency Securities	8,480

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)

System Pension Trust Fund:

As of June 30, 2018, the District did not have investments in any one organization exceeding 5% of the System's investments.

The District held demand deposits (overdrafts) amounting to \$4,793 and \$2,340 on behalf of the System as of June 30, 2018 and 2017, respectively. The financial institution which holds these deposits is required by state law to maintain collateral pools against all public deposits they hold.

I. Foreign Currency Risk

System Pension Trust Fund:

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair values of an investment or deposit.

Presented below in US dollars is the fair market value of the System's foreign investments at June 30, 2018:

<u>Foreign Currency</u>	<u>Equity Securities Investment Type</u>
Euro	\$91,660
British Pound Sterling	35,464
Japanese Yen	30,051
Hong Kong Dollar	18,447
Swiss Franc	10,609
South Korean Won	9,355
Canadian Dollar	7,864
Danish Krone	5,611
Singapore Dollar	1,614
Australian Dollar	3,160
Norwegian Krone	4,272
Indonesian Rupiah	1,597
Swedish Krona	1,080
Thai Baht	1,591
Mexican Peso	861
Total	<u><u>\$223,236</u></u>

The Fund's investment policy permits it to invest 20% of total investment on foreign currency-denominated investments. The Fund's current position is 13%.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)

Presented below in US dollars is the fair market value of the System's foreign investments at June 30, 2017:

<u>Foreign Currency</u>	<u>Equity Securities Investment Type</u>
Euro	\$73,391
British Pound Sterling	30,432
Japanese Yen	23,772
Hong Kong Dollar	14,874
South Korean Won	11,768
Swiss Franc	10,324
Canadian Dollar	7,427
Danish Krone	3,579
Singapore Dollar	2,697
Australian Dollar	2,625
Norwegian Krone	2,100
Indonesian Rupiah	1,845
Swedish Krona	1,338
Thai Baht	1,322
Mexican Peso	1,015
Brazilian Real	701
New Israeli Shekel	85
	<hr/>
Total	<u><u>\$189,295</u></u>

The Fund's investment policy permits it to invest 20% of total investment on foreign currency-denominated investments. The Fund's prior year position is 12.1%.

J. Custodial Credit Risk

Custodial credit risk for *cash on deposits* is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for *investments* is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, the District or System will not be able to recover the value of its investment or collateral securities that are in the possession of another party.

California Law requires banks and savings and loan institutions to pledge government securities with a market value of 110% of the District's cash on deposit, or first trust deed mortgage notes with a market value of 150% of the deposit, as collateral for these deposits. Under California Law this collateral is held in a separate investment pool by another institution in the District's name and places the District ahead of general creditors of the institution.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 2 - CASH AND INVESTMENTS (Continued)
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The District and System invest in individual investments and in investment pools. Individual investments are evidenced by specific identifiable *securities instruments*, or by an electronic entry registering the owner in the records of the institution issuing the security, called the *book entry* system. In order to increase security, the District and System employ the Trust Department of a bank or trustee as the custodian of certain District and System managed investments, regardless of their form.

As of June 30, 2018 and 2017, the System's brokers/dealers held \$0 in cash exposed to custodial credit risk.

K. Joint Powers Authority

DSRSD/EBMUD Regional Water Authority - On June 28, 1995, the Dublin San Ramon Service District (DSRSD) and East Bay Municipal Utility District (District) entered into a Joint Powers Agreement (JPA) and established the DSRSD/EBMUD Recycled Water Authority (DERWA) with the purpose of creating a recycled water program in the San Ramon and Livermore-Amador Valleys. The JPA governing body is not substantially the same as the District and its independent Board consists of two directors each from the DSRSD and District. The JPA books and records are being maintained separately from DSRSD and the District. The DSRSD and District made member contributions to fund the JPA start-up and continue to fund capital projects at the request of the JPA on an as needed basis. Although DERWA has a significant relationship with the District, DERWA does not provide services solely to the District, and therefore is not considered a component unit of the District.

Freeport Regional Water Authority - The Freeport Regional Water Project (FRWP) is a regional water supply project undertaken by the District in partnership with the Sacramento County Water Agency (SCWA). In February 2002, with the support of the United States Bureau of Reclamation, the District and SCWA formed the Freeport Regional Water Authority (FRWA) under a joint powers agreement to develop the FRWP. The FRWP provides the permanent infrastructure to allow the District to receive water deliveries pursuant to the Long-Term Renewal Central Valley Project Contract at a new point of diversion along the Sacramento River. In addition to providing the District up to 100 MGD of supplemental water in dry years, the FRWP can provide up to 85 MGD to SCWA in all years. The District's share of the facilities is recorded as Investment in JPA and is presented on the balance sheet. To increase the District's reserve of water supply due to the recent drought, the District activated the pumping of water from the Sacramento River via the Freeport facility during Fiscal Year 2015.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 3 – CAPITAL ASSETS

A. Summary

The District capitalizes all assets with a historical cost of at least \$5 and a useful life of at least three years. Contributed capital assets are valued at their estimated acquisition value on the date contributed.

The purpose of depreciation is to spread the cost of capital assets equitably among all customers over the life of these assets, so that each customer's bill includes a pro rata share of the cost of these assets. The amount charged to depreciation expense each year represents that year's pro rata share of depreciable capital assets.

Depreciation of all capital assets in service, excluding land, is charged as an expense against operations each year and the total amount of depreciation taken over the years, called accumulated depreciation, is reported on the balance sheet as a reduction in the book value of the capital assets.

Capital assets are depreciated using the straight line method of depreciation, which means the cost of the asset is divided by its expected useful life in years and the result is charged to expense each year until the asset is fully depreciated. The District has assigned the useful lives listed below to capital assets:

Utility plant:	Years
Source of supply	25-100
Raw water transmission and storage	20-100
Interception and outfall	60-75
Pumping	25-75
Treatment	20-75
Distribution	25-75
Power Generation	25-75
Equipment	5-20
Plant Structures	25-75
Other	5-40

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 3 – CAPITAL ASSETS (Continued)

B. Additions and Retirements

Capital assets activity for all business-type activities for the year ended June 30, 2018 was as follows:

	Balance at June 30, 2017	Additions and Transfers, net	Retirements and Transfers, net	Balance at June 30, 2018
<i>Water System:</i>				
Capital assets, not being depreciated:				
Land	\$61,465	\$495	(\$2)	\$61,958
Rights-of-way	3,043			3,043
Construction in progress - Land/Rights of Way	178	495	(495)	178
Construction in progress	405,179	321,703	(254,614)	472,268
Total capital assets, not being depreciated	469,865	322,693	(255,111)	537,447
Capital assets, being depreciated:				
Buildings and improvements	242,094	2,306		244,400
System and improvements	4,917,929	240,949	(17,994)	5,140,884
Machinery and equipment	104,516	11,359	(3,425)	112,450
Total capital assets, being depreciated:	5,264,539	254,614	(21,419)	5,497,734
Less accumulated depreciation for:				
Buildings and improvements	(106,756)	(5,617)		(112,373)
System and improvements	(1,622,401)	(96,103)	2,643	(1,715,861)
Machinery and equipment	(64,754)	(5,173)	3,000	(66,927)
Total accumulated depreciation	(1,793,911)	(106,893)	5,643	(1,895,161)
Total capital assets, being depreciated, net	3,470,628	147,721	(15,776)	3,602,573
Water System capital assets, net	\$3,940,493	\$470,414	(\$270,887)	\$4,140,020
<i>Wastewater System:</i>				
Capital assets, not being depreciated:				
Land	\$21,094	\$72		\$21,166
Rights-of-way	191			191
Construction in progress - Land/Rights of Way	311	88	(\$72)	327
Construction in progress	56,924	30,026	(43,331)	43,619
Total capital assets, not being depreciated	78,520	30,186	(43,403)	65,303
Capital assets, being depreciated:				
Buildings and improvements	85,248	2,274		87,522
System and improvements	974,957	40,130	(2,271)	1,012,816
Machinery and equipment	13,290	927		14,217
Total capital assets, being depreciated	1,073,495	43,331	(2,271)	1,114,555
Less accumulated depreciation for:				
Buildings and improvements	(38,193)	(1,658)		(39,851)
System and improvements	(394,562)	(20,128)		(414,690)
Machinery and equipment	(8,516)	(914)		(9,430)
Total accumulated depreciation	(441,271)	(22,700)		(463,971)
Total capital assets, being depreciated, net	632,224	20,631	(2,271)	650,584
Wastewater System capital assets, net	\$710,744	\$50,817	(\$45,674)	\$715,887
Business-type activities capital assets, net	\$4,651,237	\$521,231	(\$316,561)	\$4,855,907

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 3 – CAPITAL ASSETS (Continued)

Capital assets activity for all business-type activities for the year ended June 30, 2017 was as follows:

	Balance at June 30, 2016	Additions and Transfers, net	Retirements and Transfers, net	Balance at June 30, 2017
<i>Water System:</i>				
Capital assets, not being depreciated:				
Land	\$55,704	\$5,875	(\$114)	\$61,465
Rights-of-way	3,029	14		3,043
Construction in progress - Land/Rights of Way	813	5,255	(5,890)	178
Construction in progress	302,160	259,995	(156,976)	405,179
Total capital assets, not being depreciated	361,706	271,139	(162,980)	469,865
Capital assets, being depreciated:				
Buildings and improvements	240,086	2,008		242,094
System and improvements	4,792,810	142,242	(17,123)	4,917,929
Machinery and equipment	98,216	12,726	(6,426)	104,516
Total capital assets, being depreciated:	5,131,112	156,976	(23,549)	5,264,539
Less accumulated depreciation for:				
Buildings and improvements	(101,173)	(5,583)		(106,756)
System and improvements	(1,529,384)	(93,864)	847	(1,622,401)
Machinery and equipment	(66,101)	(4,449)	5,796	(64,754)
Total accumulated depreciation	(1,696,658)	(103,896)	6,643	(1,793,911)
Total capital assets, being depreciated, net	3,434,454	53,080	(16,906)	3,470,628
Water System capital assets, net	\$3,796,160	\$324,219	(\$179,886)	\$3,940,493
<i>Wastewater System:</i>				
Capital assets, not being depreciated:				
Land	\$21,000	\$94		\$21,094
Rights-of-way	191			191
Construction in progress - Land/Rights of Way	259	146	(\$94)	311
Construction in progress	63,146	41,588	(47,810)	56,924
Total capital assets, not being depreciated	84,596	41,828	(47,904)	78,520
Capital assets, being depreciated:				
Buildings and improvements	76,481	8,767		85,248
System and improvements	938,508	38,316	(1,867)	974,957
Machinery and equipment	12,600	727	(37)	13,290
Total capital assets, being depreciated	1,027,589	47,810	(1,904)	1,073,495
Less accumulated depreciation for:				
Buildings and improvements	(36,770)	(1,423)		(38,193)
System and improvements	(374,142)	(20,420)		(394,562)
Machinery and equipment	(7,731)	(823)	38	(8,516)
Total accumulated depreciation	(418,643)	(22,666)	38	(441,271)
Total capital assets, being depreciated, net	608,946	25,144	(1,866)	632,224
Wastewater System capital assets, net	\$693,542	\$66,972	(\$49,770)	\$710,744
Business-type activities capital assets, net	\$4,489,702	\$391,191	(\$229,656)	\$4,651,237

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 3 – CAPITAL ASSETS (Continued)

C. Construction in Progress

Construction in Progress in fiscal 2017-2018 comprises:

	Expended to Date
<i>Water System:</i>	
Pipeline Infrastruct Renewals	\$56,876
WTTIP WTP Improvements	55,006
Reservoir Rehab/Maintenance	37,941
Summit Pressure Zone Improve	32,622
Open Cut Reservoir Rehab	31,781
Pumping Plant Rehabilitation	28,598
Large Diameter Pipelines	24,565
Addl Supplemental Supply Projs	15,857
Faria PZI (formerly Purdue)	14,737
Treatment Plant Upgrades	14,410
Reservoir Tower Modifications	13,595
Raw Water Studies and Improves	12,652
Water Conservation Project	9,249
Service Lateral Replacements	8,157
SRV Recycled Water Program	7,199
Water Capital Costs Misc.	6,658
Pipeline Relocations	6,235
West of Hills Master Plan	6,167
Trench Soils Storage Sites	5,203
Mok Aqu No 2 & 3 Relining Proj	4,235
Other Construction Projects	80,703
	<u>\$472,446</u>
<i>Wastewater System:</i>	
Treatment Plant Infrastructure	\$7,679
3rd St Sewer Interceptor Rehab	5,989
PS Q FM Dual-Mode Operation	4,863
Treatment Plant Infra Ph 2	4,073
Digester Upgrade	3,804
Infiltration/Inflow Contrl Prj	2,873
Routine Cap Equip Replacement	2,538
Resource Recovery Project	2,092
MWWTP Master Planning	1,968
Concrete Rehab at SDI	1,638
MWWTP Pwr Dist Sys Upgrade	1,146
Interceptor Corrosion Prevent	923
Outfall Investigation Project	728
PGS Engine Overhaul	581
So Interceptor Reloc High St	540
Other Construction Projects	2,511
	<u>\$43,946</u>
Total District Construction in Progress	<u><u>\$516,392</u></u>

At June 30, 2018, the District's remaining current major project commitments are estimated to be \$52,328 for the Water System and \$14,130 for the Wastewater System.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 3 – CAPITAL ASSETS (Continued)

Construction in Progress in fiscal 2016-2017 comprises:

	Expended to Date
<i>Water System:</i>	
Pumping Plant Rehabilitation	\$49,610
Treatment Plant Upgrades	47,236
Pipeline Infrastruct Renewals	44,253
Reservoir Rehab/Maintenance	34,142
Summit Pressure Zone Improve	28,153
Dam Seismic Upgrades	23,531
Open Cut Reservoir Rehab	16,630
Addl Supplemental Supply Projs	14,566
WTTIP WTP Improvements	11,174
Raw Water Studies and Improves	9,479
SRV Recycled Water Program	8,322
Water Conservation Project	8,101
Pipeline Infra Renew Historic	7,631
Large Diameter Pipelines	7,205
Reservoir Tower Modifications	6,091
Pipeline Relocations	5,850
Faria PZI (formerly Purdue)	5,608
Service Lateral Replacements	5,340
West of Hills Master Plan	4,972
Water Capital Costs Misc.	3,960
Other Construction Projects	63,503
	<u>\$405,357</u>
<i>Wastewater System:</i>	
Treatment Plant Infrastructure	\$10,436
Digester Upgrade	8,213
Odor Control Improvements	7,389
Routine Cap Equip Replacement	5,327
Resource Recovery Project	4,558
Infiltration/Inflow Contrl Prj	4,325
DCS Upgrades	4,303
PS Q FM Dual-Mode Operation	3,075
3rd St Sewer Interceptor Rehab	2,212
MWWTP Master Plan	1,670
MWWTP Pwr Dist Sys Upgrade	1,083
Treatment Plant Infra Ph 2	772
Concrete Rehab at SD1	724
Interceptor Corrosion Prevent	635
Outfall Investigation Project	622
Other Construction Projects	1,891
	<u>\$57,235</u>
Total District Construction in Progress	<u><u>\$462,592</u></u>

At June 30, 2017, the District's remaining current major project commitments are estimated to be \$78,785 for the Water System and \$5,454 for the Wastewater System.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 4 – ACCOUNTS PAYABLE & ACCRUED EXPENSES

Accounts payable and accrued expenses at June 30, 2018 and 2017 consist of:

	Water System		Wastewater System		Total	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Accounts payable	\$35,966	\$19,340	\$3,304	\$4,365	\$39,270	\$23,705
Accrued salaries	2,965	2,360	548	394	3,513	2,754
Accrued compensated absences	28,506	26,545	4,827	4,130	33,333	30,675
Other	21,689	20,607	951	453	22,640	21,060
Total	<u>\$89,126</u>	<u>\$68,852</u>	<u>\$9,630</u>	<u>\$9,342</u>	<u>\$98,756</u>	<u>\$78,194</u>

NOTE 5 – EXTENDABLE COMMERCIAL PAPER NOTES

The District's Board of Directors has authorized the issuance of short-term indebtedness of the District in a maximum principal amount of up to the lesser of either the average of the total annual revenue for the three preceding years or 25% of the District's total outstanding bonds. Under this authority the District has established two commercial paper programs: an extendable commercial paper program and a traditional commercial paper program. The proceeds from the issuance of commercial paper under these programs are restricted as to use. Under the programs, which must be authorized by the Board of Directors every seven years by resolution subject to the right of referendum, the Water System or the Wastewater System may issue commercial paper and bank notes at prevailing interest rates for periods of not more than 270 days from the date of issuance. The programs were last authorized on April 28, 2015.

The District initially established its extendable commercial paper program in March 2009. Under the extendable commercial paper program, no liquidity support agreement with a commercial bank is needed. Instead, the District limits the term of the extendable commercial paper to 120 days, and the investor agrees to extend the maturity of their investment by 150 days at a higher interest rate in the event of a failed remarketing, giving the District sufficient time to find a replacement investor or refund the extendable commercial paper with a different form of debt to repay the investor.

As of June 30, 2018, \$0 million in Water Series and \$15.0 million in Wastewater Series extendable commercial paper notes were outstanding under this program. The Wastewater Series included the term of 58 days and an interest rate of 1.28% as of June 30, 2018, and the term of 61 days and an interest rate of 0.91% as of June 30, 2017.

The District established its current traditional commercial paper program in December 2015. As of June 30, 2018, \$359.8 million in Water Series and \$0 in Wastewater Series commercial paper notes were outstanding under this program. The Water Series commercial paper notes included the terms of 26 to 146 days and interest rates ranging from 1.19% to 1.69% as of June 30, 2018, and the terms of 30 to 123 days and interest rates ranging from 0.78% to 0.97% as of June 30, 2017.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 5 – COMMERCIAL PAPER NOTES (Continued)
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To provide liquidity for the Water Series notes issued under the traditional commercial paper program, the District maintains two liquidity support facilities with commercial banks: a standby letter of credit in the amount of \$200,000,000 and a revolving credit agreement in the amount of \$160,000,000. Borrowings by the Water System for commercial paper notes and bank notes under the traditional commercial paper program cannot exceed the aggregate amount available under these agreements. Drawings under the liquidity support facilities are restricted to pay principal on maturing Water Series commercial paper notes. There were no borrowings under the liquidity support facilities as of June 30, 2018. The liquidity support facilities expire on December 1, 2020 and November 30, 2018, respectively, and are subject to extension at the request of the District upon agreement by the issuing bank.

There were no unused proceeds of commercial paper notes as of June 30, 2018. It is the District's practice to use the commercial paper programs as a portion of the District's long-term variable rate debt exposure.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 6 – LONG-TERM DEBT

A. Composition and Changes

The District generally incurs long-term debt to finance projects or purchase assets which will have useful lives equal to or greater than the related debt. The District's debt issues and transactions are summarized below and discussed in detail thereafter.

The District's debt issues and transactions during fiscal year 2017-2018 are summarized below.

	Original Issue Amount	Balance June 30, 2017	Additions	Retirements	Balance June 30, 2018	Amount due within one year
<i>Water System Revenue Bonds:</i>						
Subordinated Series 2008 A						
1.31 variable rate, due 6/1/38	\$322,525	\$105,250			\$105,250	
Subordinated Series 2010 A						
3.00 - 5.00%, due 6/1/36	192,830	7,020		\$2,540	4,480	\$2,390
Subordinated Series 2010 B						
5.87%, due 6/1/40	400,000	400,000			400,000	
Series 2012 A						
5.00%, due 6/1/37	191,750	81,750			81,750	
Series 2012 B						
1.00-5.00%, due 6/1/26	358,620	249,450		34,600	214,850	36,110
Series 2013 A						
5.00%, due 6/1/21	48,670	28,065		6,465	21,600	6,820
Series 2014 A						
3.00-5.00%, due 6/1/35	128,315	128,315			128,315	
Series 2014 B						
2.00-5.00%, due 6/1/30	242,730	233,450		8,040	225,410	8,425
Series 2014 C						
5.00%, due 6/1/44	75,000	75,000			75,000	
Series 2015 A						
4.00-5.00%, due 6/1/37	429,360	429,360			429,360	
Series 2015 B						
4.00-5.00%, due 6/1/45	74,335	74,335			74,335	
Series 2015 C						
4.00-5.00%, due 6/1/45	110,715	110,715			110,715	
Series 2017 A						
3.00-5.00%, due 6/1/45	185,355	185,355			185,355	
Series 2017 B						
3.00-5.00%, due 6/1/37	309,665	309,665		6,190	303,475	6,345
Total water long-term bonds		2,417,730		57,835	2,359,895	60,090

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 6 - LONG TERM DEBT (Continued)

	Original Issue Amount	Balance June 30, 2017	Additions	Retirements	Balance June 30, 2018	Amount due within one year
<i>Wastewater System General Obligation Bonds:</i>						
Series G						
5.00%, due 4/1/18	\$14,160	\$3,515		\$3,515		
<i>Wastewater System Revenue Bonds</i>						
Subordinated Series 2010 A						
2.00-5.00%, due 6/1/29	58,095	7,805		2,510	\$5,295	\$2,615
Subordinated Series 2010 B						
5.03-5.18%, due 6/1/40	150,000	150,000			150,000	
Series 2012 A						
5.00%, due 6/1/37	20,000	20,000			20,000	
Series 2014A						
2.00-5.00%, due 6/1/31	82,150	72,040		4,470	67,570	4,635
Series 2015 A-1						
5.00%, due 6/1/37	54,805	54,805			54,805	
Series 2015 A-2						
5.00%, due 6/1/38	13,565	13,565			13,565	
Series 2015 B						
2.10-3.35%, due 6/1/30	2,795	2,475		165	2,310	165
Series 2017 A						
4.00-5.00%, due 6/1/37	69,420	69,420		2,890	66,530	2,955
Total wastewater long-term bonds		393,625		13,550	380,075	10,370
Total long-term bonds		2,811,355		71,385	2,739,970	70,460
<i>Water Loans:</i>						
<i>State Water Resources Control Board</i>						
2004 Upper San Leandro Reservoir Project						
2.51%, due 1/1/24	\$2,188	\$833		\$120	\$713	\$123
2008 East Bayshore, Recycled Water Project						
2.40%, due 4/1/28	20,100	12,058		971	11,087	994
2018 South Reservoir Replacement Project						
1.70%, due 7/1/48	2,260		\$2,260		2,260	58
Total water loans		12,891	2,260	1,091	14,060	1,175
Total long-term loans		12,891	2,260	1,091	14,060	1,175
<i>Commercial Paper (see Note 5)</i>					12,885	
Water System Commercial Paper:		359,800	2,043,600	2,043,600	359,800	
Wastewater System Commercial Paper:		15,000	76,500	76,500	15,000	
Total commercial paper		374,800	2,120,100	2,120,100	374,800	
Amount due within one year		(72,476)	841		(71,635)	
Less: Unamortized premium, net		286,067		25,962	260,105	
Amount due in more than one year		\$601,282	\$2,123,201	\$2,147,153	\$577,330	\$71,635

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 6 - LONG TERM DEBT (Continued)

The District's debt issues and transactions during fiscal year 2016-2017 are summarized below.

	Original Issue Amount	Balance June 30, 2016	Additions	Retirements	Balance June 30, 2017	Amount due within one year
<i>Water System Revenue Bonds:</i>						
Subordinated Series 2007 B						
3.75 - 5.00%, due 6/1/19	\$54,790	\$19,155		\$19,155		
Subordinated Series 2008 A						
.87% variable rate, due 6/1/38	322,525	105,250			\$105,250	
Subordinated Series 2010 A						
3.00 - 5.00%, due 6/1/36	192,830	183,400		176,380	7,020	\$2,540
Subordinated Series 2010 B						
5.87%, due 6/1/40	400,000	400,000			400,000	
Series 2012 A						
5.00% , due 6/1/37	191,750	191,750		110,000	81,750	
Series 2012 B						
1.00 -5.00%, due 6/1/26	358,620	278,810		29,360	249,450	34,600
Series 2013 A						
5.00%, due 6/1/21	48,670	34,200		6,135	28,065	6,465
Series 2014 A						
3.00-5.00%, due 6/1/35	128,315	128,315			128,315	
Series 2014 B						
2.00-5.00%, due 6/1/30	242,730	241,220		7,770	233,450	8,040
Series 2014 C						
5.00%, due 6/1/44	75,000	75,000			75,000	
Series 2015 A						
4.00-5.00%, due 6/1/37	429,360	429,360			429,360	
Series 2015 B						
4.00-5.00%, due 6/1/45	74,335	74,335			74,335	
Series 2015C						
4.00-5.00%, due 6/1/45	110,715	110,715			110,715	
Series 2017 A						
3.00 - 5.00%, due 6/1/45	185,355		\$185,355		185,355	
Series 2017 B						
3.00 - 5.00%, due 6/1/37	309,665		309,665		309,665	6,190
Total water long-term bonds		2,271,510	495,020	348,800	2,417,730	57,835

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 6 - LONG TERM DEBT (Continued)

	Original Issue Amount	Balance June 30, 2016	Additions	Retirements	Balance June 30, 2017	Amount due within one year
<i>Wastewater System General</i>						
<i>Obligation Bonds:</i>						
Series G						
5.00%, due 4/1/18	\$14,160	\$7,345		\$3,830	\$3,515	\$3,515
<i>Wastewater System Revenue Bonds:</i>						
Subordinated Series 2007 B						
3.75 - 5.00%, due 6/1/26	46,670	26,920		26,920		
Subordinated Series 2010 A						
2.00 - 5.00%, due 6/1/29	58,095	44,295		36,490	7,805	2,510
Subordinated Series 2010 B						
5.03 - 5.18%, due 6/1/40	150,000	150,000			150,000	
Series 2012 A						
5.00% , due 6/1/37	20,000	20,000			20,000	
Series 2014 A						
2.00 - 5.00%, due 6/1/31	82,150	76,310		4,270	72,040	4,470
Series 2015 A-1						
5.00%, due 6/1/37	54,805	54,805			54,805	
Series 2015 A-2						
5.00%, due 6/1/38	13,565	13,565			13,565	
Series 2015 B						
2.10 - 3.35% , due 6/1/30	2,795	2,635		160	2,475	165
Series 2017 A						
4.00 - 5.00%, due 6/1/37	69,420		\$69,420		69,420	2,890
Total wastewater long-term bonds		395,875	69,420	71,670	393,625	13,550
Total long-term bonds		2,667,385	564,440	420,470	2,811,355	71,385
<i>Water Loans:</i>						
<i>State Water Resources Control Board</i>						
2004 Upper San Leandro Reservoir Project						
2.51%, due 1/1/24	\$2,188	\$950		\$117	\$833	\$120
2008 East Bayshore, Recycled Water Project						
2.40%, due 4/1/28	20,100	13,006		948	12,058	971
Total water loans		13,956		1,065	12,891	1,091
Total long-term loans		13,956		1,065	12,891	1,091
<i>Commercial Paper (see Note 5)</i>						
Water System Commercial Paper		359,800	1,837,700	1,837,700	359,800	
Wastewater System Commercial Paper		15,000	106,500	106,500	15,000	
Total commercial paper		374,800	1,944,200	1,944,200	374,800	
Amount due within one year		(66,515)	(5,961)		(72,476)	
Add: Unamortized premium, net		184,011	124,801	22,745	286,067	
Total long-term liabilities, net		\$3,173,637	\$2,627,480	\$2,388,480	\$3,412,637	\$72,476

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 6 - LONG TERM DEBT (Continued)

B. Description of the District's Long-Term Debt Issues

General obligation and revenue bonds are generally callable at future dates. The general obligation bonds are repaid from property taxes levied on property within the District.

Revenue-supported debt can be authorized by the District's Board of Directors, subject to a referendum process.

The net revenues of the Water System are pledged toward the repayment of the Water Revenue Bonds and the State Water Resources Control Board Parity Loans of the Water System. The net revenues of the Wastewater System are pledged toward the repayment of the Wastewater Revenue Bonds of the Wastewater System.

The District is subject to certain revenue bond covenants on outstanding debt which require the setting of rates and charges to yield net revenues of the respective Water System or Wastewater System, as applicable, equal to at least 110% of the current annual debt service requirements for all revenue bonds and other parity obligations of the respective Water System or Wastewater System. The District has designated \$119.1 million (\$95.0 million for the Water System and \$24.1 million for the Wastewater System) of operating reserves as a rate stabilization fund, which is available to satisfy the coverage requirements for debt service in future years. There have never been any draws for this purpose.

2018 South Reservoir Replacement Project Loan – The District entered into a \$18.9 million loan agreement with the State Water Resources Control Board (SWRCB) to fund construction for the South Reservoir Replacement Project. The project will replace the existing South Reservoir with 8.5 MG partially buried concrete reservoir to meet demand and increase system reliability. As of June 30, 2018, the District received \$2.3 million out of \$18.9 million from SWRCB. The loan repayments are payable solely from Operating Revenues. Interest payments commenced on July 1, 2018 and principal payments commenced on January 1, 2019, and are payable semi-annually thereafter.

C. Debt Service Requirements

Annual debt service requirements for fiscal year 2017-2018, including the swap payments discussed in F., are shown below for the above debt issues:

For the Year Ending June 30	Water System		Wastewater System		Total	
	Principal	Interest	Principal	Interest	Principal	Interest
2019	\$61,265	\$116,440	\$10,370	\$18,851	\$71,635	\$135,291
2020	64,368	113,511	10,860	18,364	75,228	131,875
2021	66,057	110,427	10,955	17,875	77,012	128,302
2022	68,851	107,357	11,480	17,329	80,331	124,686
2023	72,176	104,069	12,010	16,757	84,186	120,826
2024 - 2028	407,873	464,798	68,635	74,231	476,508	539,029
2029 - 2033	513,362	353,576	86,495	55,490	599,857	409,066
2034 - 2038	648,068	218,294	110,325	31,696	758,393	249,990
2039 - 2043	374,689	66,196	56,790	4,877	431,479	71,073
2044 - 2045	97,246	5,812	2,155	123	99,401	5,935
Totals	\$2,373,955	\$1,660,480	\$380,075	\$255,593	\$2,754,030	\$1,916,073

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 6 - LONG TERM DEBT (Continued)

Annual debt service requirements for fiscal year 2016-2017, including the swap payments discussed in F., are shown below for the above debt issues:

For the Year Ending June 30	Water System		Wastewater System		Total	
	Principal	Interest	Principal	Interest	Principal	Interest
2018	\$58,926	\$113,291	\$13,550	\$19,339	\$72,476	\$132,630
2019	61,207	110,779	10,370	18,851	71,577	129,630
2020	64,309	107,852	10,860	18,364	75,169	126,216
2021	65,996	104,769	10,955	17,875	76,951	122,644
2022	68,790	101,700	11,480	17,329	80,270	119,030
2023 - 2027	391,088	456,726	65,720	77,510	456,808	534,238
2028 - 2032	488,991	354,478	82,410	59,588	571,401	414,066
2033 - 2037	617,745	234,433	104,970	36,934	722,715	271,367
2038 - 2042	461,710	84,907	80,140	8,896	541,850	93,803
2043 - 2045	151,860	11,456	3,170	246	155,030	11,702
Totals	<u>\$2,430,622</u>	<u>\$1,680,391</u>	<u>\$393,625</u>	<u>\$274,932</u>	<u>\$2,824,247</u>	<u>\$1,955,327</u>

Interest payments on debt subject to swap agreements were calculated using the variable rates at June 30, 2018 and 2017, respectively.

D. Prior-Year Defeasances

In prior years, the District defeased certain debt issues by placing proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the refunded bonds. Accordingly, the trust account assets and the liability for the defeased debt are not included in the District's financial statements. As of June 30, 2018 and 2017, \$318 million and \$355 million of the bonds outstanding are considered defeased, respectively.

E. Variable Rate Debt

The District has a number of bond issues with variable interest rates. The Water Series 2008A Bonds are subject to purchase on the demand of the holder with seven days prior notice at a price equal to the principal plus accrued interest. The remarketing agent is authorized to use its best efforts to sell the repurchased bonds at a price equal to 100 percent of the principal amount by adjusting the interest rate. In the event that they are not sold, under Standby Bond Purchase Agreements (SBPAs) issued by banks for the above variable rate debt issues, the trustee or the remarketing agent is entitled to draw an amount sufficient to pay the purchase price of delivered bonds. The District is required to pay an annual commitment fee to the banks issuing SBPAs. Expiration dates of these SBPAs are presented below by debt issue. In addition, the remarketing agent receives an annual fee of seven basis points of the outstanding principal amount of the bonds.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 6 - LONG TERM DEBT (Continued)

Issue	Standby Purchase Agreement Terms		
	Expiration Date	Interest Rate	Interest Rate Swap
Water System Revenue Subordinated Bonds:			
Series 2008A-1	12/9/2019	Reset Weekly	See below
Series 2008A-2	11/24/2021	Reset Weekly	See below
Series 2008A-3	11/24/2021	Reset Weekly	See below
Series 2008A-4	12/9/2019	Reset Weekly	See below

F. Interest Rate Swap Agreements

The District has entered into a number of matched interest rate swap contracts with providers in which the District contracted to pay a fixed rate on the nominal amount of outstanding bonds, in exchange for a floating rate payment, set monthly on the first day of each calendar month for its LIBOR based swaps. The combination of variable rate bonds and a floating-rate swap creates synthetic fixed-rate debt for the District. The synthetic fixed rate on the bonds protects the District against increases in short-term interest rates. The terms, fair value, and credit risk of each of the swap agreements are discussed below.

Term and credit risks. The terms and credit ratings of the outstanding swaps, as of June 30, 2018, are included below. The District's swap agreements contain scheduled reductions to outstanding notional amounts that are expected to follow scheduled reductions in the associated bonds.

Related Bond Issue	Notional Amount	Effective Date	Counterparty	Counterparty Credit Ratings	Issuer Pays	Issuer Receives	Maturity/ Termination Date
2008A Water System Refunding Bonds	37,240	6/2/2005	JP Morgan Chase & Co.	Aa3/A+	3.115%	62.3% of 30-day LIBOR	6/1/2038
2008A Water System Refunding Bonds	37,240	6/1/2011	Bank of America, National Assoc.	Aa3/A+	3.115%	62.3% of 30-day LIBOR	6/1/2038
2008A Water System Refunding Bonds	16,195	6/1/2012	Merrill Lynch Capital Services	A3/A-	3.115%	62.3% of 30-day LIBOR	6/1/2038
2008A Water System Refunding Bonds	14,575	9/25/2008	Bank of New York Mellon	Aa2/AA-	3.115%	62.3% of 30-day LIBOR	6/1/2038

The effect of these transactions is structured to result in the approximate equivalent of the District paying a fixed rate on the bonds, since the inflow of payments from the LIBOR based swaps are anticipated to approximate the outflow of payments on the variable rate bonds. Only the net difference in interest payments to the swap providers is made under the swap contracts.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 6 - LONG TERM DEBT (Continued)

Fair value. The fair value of the swaps takes into consideration the prevailing interest rate environment, the specific terms and conditions of a given transaction and any upfront payments that may have been received. The fair value was estimated using the zero-coupon discounting method. This method calculates the future payments required by the swap, assuming that the current forward rates implied by the LIBOR swap yield curve are the market's best estimate of future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for a hypothetical zero-coupon rate bond due on the date of each future net settlement on the swaps. The fair values of each swap at June 30, 2018 and 2017, are included below:

Related Bond Issue	Fair Value	
	2018	2017
Water		
2008A Water System Refunding Bonds	(\$18,256)	(\$24,777)

Credit risk. As of June 30, 2018, the District was not exposed to credit risk on its outstanding swaps because the swaps had a negative fair value of \$18.3 million. The District faces a maximum possible loss equivalent to the swaps' fair value. However, if interest rates increase and the fair value of the swaps were to become positive, the District would be exposed to credit risk.

The District will be exposed to interest rate risk only if the counterparty to the swap defaults or if the swap is terminated. The swap agreements contain provisions that determine if and when the District or the counterparty must provide collateral. The agreements require full collateralization of the fair value of the swap should the counterparty's credit rating fall below a certain threshold. As of June 30, 2018, the District was not required to provide collateral to any swap counterparty.

Basis risk. Basis risk is the risk that the interest rate paid by the District on underlying variable rate bonds to bondholders temporarily differs from the variable swap rate received from the applicable counterparty. The District is exposed to basis risk as the District receives payments based on LIBOR rates to offset the actual variable interest rate the District pays on its bonds. The District is exposed to basis risk should the floating rate that it receives on a swap be less than the actual variable rate the District pays on the bonds. Depending on the magnitude and duration of any basis risk shortfall, the expected cost of the basis risk may vary. As of June 30, 2018, the District has a basis difference on its swaps of a positive 11 basis points (the District receives less from its swap floating rate payment than it pays out on its variable rate debt).

Termination risk. The District or the counterparty may terminate if the other party fails to perform under the terms of the swap contract. The District will be exposed to variable rates if the providers to the swap contracts default or if the swap contracts are terminated as it will lose the hedge provided by the swap. A termination of the swap contracts may also result in the District's making or receiving a termination payment based on market interest rates at the time of the termination. If at the time of termination the swap has a negative fair value, the District would be liable to the counterparty for a payment equal to the swap's fair value.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 6 – LONG-TERM DEBT (Continued)

Swap payments and associated debt. Using rates as of June 30, 2018, debt service requirements of the District's outstanding variable-rate debt and net swap payments are as follows. As rates vary, variable-rate bond interest payments and net swap payments will vary. These payments below are included in the Debt Service Requirements at C. above:

For the Year Ending June 30	Variable-Rate Bonds		Interest Rate Swaps, Net	Total
	Principal	Interest	Interest	
2019		\$1,384	\$1,908	\$3,292
2020		1,384	1,908	3,292
2021		1,384	1,908	3,292
2022		1,383	1,908	3,291
2023		1,383	1,908	3,291
2024 - 2028		6,918	9,540	16,458
2029 - 2033	\$36,225	5,976	8,241	50,442
2034 - 2038	69,025	1,876	2,588	73,489
Totals	<u>\$105,250</u>	<u>\$21,688</u>	<u>\$29,909</u>	<u>\$156,847</u>

NOTE 7 – NET POSITION

Net Position is the excess of all the District's assets and deferred outflows over all its liabilities and deferred inflows, regardless of fund. Net Position is divided into three captions. These captions apply only to Net Position and are described below:

Net Investment in Capital Assets describes the portion of Net Position which is represented by the current net book value of the District's capital assets, less the outstanding balance of any debt issued to finance these assets and any related deferred outflows and inflows.

Restricted describes the portion of Net Position which is restricted as to use by the terms and conditions of agreements with outside parties, governmental regulations, laws, or other restrictions which the District cannot unilaterally alter. These principally include developer fees received for use on capital projects, debt service requirements, and fees charged for the provision of future water resources.

Unrestricted describes the portion of Net Position which is not restricted to use.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN
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A. Description

The Employees’ Retirement System is a single-employer, contributory, defined benefit pension plan (the Plan) which provides retirement, disability, survivorship, and post-employment healthcare benefits for eligible directors, officers, and employees of the District. The Plan is administered by a Retirement Board composed of three members appointed by the District’s Board of Directors and two members elected by and from the active membership of the Plan, and a nonvoting member elected by the retirees of the Plan. Retirement Ordinance No. 40 assigns the authority to establish Plan benefit provisions to the District’s Board of Directors. A stand-alone financial report of the Employees’ Retirement System is available. Please send request to the Controller, Accounting Division, P.O. Box 24055, Oakland, CA 94623-1055 or visit the District website at <http://www.ebmud.com>.

All regular full-time employees of the District are members of the Plan in addition to certain job share and intermittent employees. In accordance with the ordinance governing the System, eligible employees become members on the first day they are physically on the job. Members become vested in the Plan after five years of continuous full-time employment. Vested members who terminate employment may elect a refund of their contributions or leave them in the Plan until eligible to receive benefits.

The Plan is funded by contributions from its members and from the District. District contribution percentages are recommended by the Retirement Board; employee contribution rates are established by the Board of Directors pursuant to the Ordinance, giving consideration to actuarial recommendations and prospective changes in factors which affect funding.

B. Retirement Benefits and Allowances

There are two tiers in effect currently, the 1980 Plan and the 2013 Plan. Employees who became Members of the retirement system prior to January 1, 2013, or who have reciprocal Membership are in the 1980 Plan, Employees who became Members on or after January 1, 2013 are in the 2013 Plan.

1980 Plan Members may elect voluntary reduced service retirement upon attaining the age of 54 and completing 5 years of continuous full-time employment. Members may elect voluntary unreduced service retirement upon attaining the age of 62 and completing 5 years of continuous full-time employment or age 65 without restriction. Members who continue to work upon attaining the normal retirement age of 65 continue to contribute to the Plan, and at the time they retire, computation of their retirement allowance is based upon their compensation and length of service as of the date of retirement. Service retirement allowances are computed by formulas specified in the Ordinance and are based on date of employment, length of employment, age at date of retirement, and compensation earned during employment.

2013 Plan Members may elect voluntary reduced service upon attaining the age of 52 and completing 5 years of continuous full-time employment. Members may elect voluntary unreduced service retirement upon attaining the age of 67, and completing 5 years of continuous full-time employment. Members who continue to work upon attaining the normal retirement age of 67 continue to contribute to the Plan, and at the time they retire, computation of their allowance is based upon their compensation and length of service as of the date of retirement. Service retirement allowances are computed by formulas specified in the Ordinance and are based on length of service, age at retirement, and compensation earned during employment.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)
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C. Post-employment Healthcare Cost

In addition to retirement benefits, the District provides post-employment health benefits assistance (administered by the Employees’ Retirement System) for employees who retire from the District or their surviving spouses. As of June 30, 2018, there were 1,548 participants receiving these health care benefits.

Effective July 1, 1996, a 20-year vesting schedule for full benefits was implemented for all new participants. Effective January 1, 1999, retired members who had separated from the District prior to their retirement who has at least 10 years of service also became eligible for the post-employment health benefits based on the same sliding scale. The scale provides for 25% of healthcare benefits for service from 5 through 10 years, 50% of healthcare benefits for service from 10 through 15 years, 75% of healthcare benefits for service from 15 through 20 years, and 100% of healthcare benefits for service of 20 years or more. Effective July 1, 2003, the District reimbursed up to \$450 per month (\$550 per month effective July 1, 2004, for membership of a spouse or registered domestic partner) for any health, dental, or long-term care insurance premiums paid by the retiree for themselves, current spouse, or domestic partner, or any health, dental, or long-term care insurance premiums paid by the eligible surviving spouse of a retiree. These benefits are paid from a separate post-employment healthcare benefits fund which up until June 17, 2002, was advance funded entirely by the District on an actuarially determined basis. Cash reimbursement of these benefits totaled \$8,315 in the year ended June 30, 2018. Effective June 18, 2002, a portion of the post-employment healthcare benefits costs is recovered through employee contributions.

Through June 30, 1999, the medical premium subsidy was not a vested benefit and the District reserved the right to modify or terminate the benefit at any time. If the medical subsidy were terminated, assets accumulated from contributions made for the subsidy would be used to provide other pension benefits. Effective July 1, 1999, the medical premium subsidy became a vested benefit to a maximum of \$200 per month, was changed effective October 1, 2000, to a maximum of \$250 per month, and was changed effective July 1, 2002, to a maximum of \$400 per month per month, and was changed effective July 1, 2003, to a maximum of \$450 per month, and was changed again effective July 1, 2004, to a maximum of \$450 per month and \$550 per month for membership of a spouse or registered domestic partner.

D. Actuarial Assumptions and Funding Policy

The Plan’s funding policy provides for periodic District contributions at actuarially determined amounts sufficient to accumulate the necessary assets to pay benefits when due as specified by ordinance. The individual entry age normal method is used to determine the normal cost for other post-employment benefits (OPEB) and service cost for pension, and the OPEB unfunded actuarial accrued liability (past service liability) is amortized as a level percentage of future payroll over 30 years open period.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)
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District contributions for the year ended June 30, 2018 are as follows:

1980 Plan:

Pension plan:

Employer service cost	15.57%
Toward unfunded pension liability	22.35%

Other post-employment benefits:

Employer normal cost	1.16%
Unfunded actuarial accrued liability	4.10%

2013 Plan:

Pension plan:

Employer service cost	8.95%
Toward unfunded pension liability	22.35%

Other post-employment benefits:

Employer normal cost	0.76%
Unfunded actuarial accrued liability	4.10%

Effective June 30, 2018, contributions for fiscal year 2018/2019 are as follows:

1980 Plan:

Pension plan:

Employer service cost	15.56%
Toward unfunded pension liability	21.10%

Other post-employment benefits:

Employer normal cost	1.14%
Unfunded actuarial accrued liability	4.18%

2013 Plan:

Pension plan:

Employer service cost	8.81%
Toward unfunded pension liability	21.10%

Other post-employment benefits:

Employer normal cost	0.74%
Unfunded actuarial accrued liability	4.18%

Actuarial calculations reflect a long-term perspective and actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing the costs between the employer and plan members to that point.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)
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Significant assumptions used to compute contribution requirements from the latest unaudited actuarial are as follows:

Valuation date	June 30, 2017
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll
Remaining amortization period	Plan changes are amortized over separate decreasing 15-year periods; assumptions changes are amortized over separate decreasing 25-year periods; experience gains/losses are amortized over separate decreasing 20-year periods.
Assets valuation method	Market value of assets less unrecognized returns in each last five years. Unrecognized return is equal to the difference between the actual market return and the of the expected return on the market value, and is recognized over a five year period, further adjusted, if necessary, to be within 30% of the market value.
Actuarial assumptions:	
Net Investment Return	7.25%, net of investment and administrative expenses.
Average projected salary increases*	Ranges from 4.00% to 9.50% based on years of service*
Inflation rate	3.00%
Cost-of-living adjustments	3.00% per annum
Mortality	<i>Pre-retirement:</i> Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Service Retirement and All Beneficiaries:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Disability Retirement:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward nine years for males and females

** Includes inflation of 3.00% plus across the board salary increases of 0.50% plus merit and promotional increases*

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

E. Contributions Required and Contributions Made

Contributions for the years ended June 30, 2018 and June 30, 2017, based on the June 30, 2017, actuarial valuation (latest available and includes amounts for post-employment healthcare benefits), were as follows:

	2018		2017
	Pension	Healthcare Benefit Plan	Totals
Regular contributions:			
District contributions	\$71,220	\$9,875	\$81,095
Member contributions	16,807	177	16,984
	<u>88,027</u>	<u>10,052</u>	<u>98,079</u>
Other contributions:			
Member buybacks	53	42	95
	<u>\$88,080</u>	<u>\$10,094</u>	<u>\$98,174</u>
			<u>\$92,878</u>

Regular District and member contributions in fiscal 2018 represent an aggregate of 41.70% and 8.78% of covered payroll, respectively. The District’s contributions include amounts for post-employment healthcare benefits at a rate of 5.36% of covered payroll, determined by the actuarial dated June 30, 2017. The actual payroll for the District employees covered by the Plan for the year ended June 30, 2018, was \$194,498, which was 91.10% of the total District payroll of \$213,505.

The total District contribution of \$81,095 in regular contributions (\$29,576 for normal cost and service cost; also includes \$51,520 for amortization of the unfunded actuarial accrued liability).

Regular District and member contributions in fiscal 2017 represent an aggregate of 42.10% and 8.77% of covered payroll, respectively. The District’s contributions include amounts for post-employment healthcare benefits at a rate of 5.32% of covered payroll, determined by the actuarial dated June 30, 2016. The actual payroll for the District employees covered by the Plan for the year ended June 30, 2017, was \$182,548, which was 90.60% of the total District payroll of \$201,483.

The total District contribution of \$77,235 for the year ended June 30, 2017, consisted of \$76,860 regular contributions (\$26,532 for normal cost and \$50,328 for amortization of the unfunded actuarial accrued liability and payment to reduces the net pension liability) and \$375 of interest on contributions.

Member buyback contributions relate to prior years’ service credits for Plan participants. The Plan was amended in 1998 for limited temporary construction workers and in 2003 for intermittent employees to allow current members, who previously worked for the District in a status which did not qualify for membership in the System, to establish retirement service credit for prior service with payments over a period of two to eight years.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

F. Schedule of Employer Contributions

The annual required contributions for fiscal years ended include amounts for the pay-as-you-go amounts for post-employment healthcare benefits.

Schedule of Employer’s Contributions:

Year ended June 30	Actuarially determined contributions	Contributions in relation to the actuarially determined contributions	Contributions deficiency (excess)	Covered payroll *	Contributions as a percentage of covered employee payroll
2008	\$7,216	\$7,216	\$0	\$152,538	4.73%
2009	6,318	6,318	0	158,193	3.99%
2010	7,725	7,725	0	161,641	4.78%
2011	7,494	7,494	0	160,336	4.67%
2012	7,495	7,495	0	158,481	4.73%
2013	7,772	7,772	0	153,707	5.06%
2014	8,457	8,457	0	159,513	5.30%
2015	8,964	8,964	0	166,886	5.37%
2016	9,454	9,454	0	174,586	5.42%
2017	9,764	9,764	0	182,032	5.36%

* Derived by dividing the contributions in relation to the actuarial determined contributions by the contributions as a percentage of covered employee payroll. These amounts may therefore be different from the actual payrolls of the District. However, in accordance with GASB 82, the covered payroll amounts for the actuarial valuations for fiscal year 2013 through current are defined as the payroll on which contributions to the pension plan are based.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)
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Health Insurance Benefit Plan:

During the fiscal year ended June 30, 2017, the District made contributions to the Health Insurance Benefit Plan toward the Annual Required Contribution (ARC) amounting to \$9,764 which represented 4.85% of the \$201,483 total District payroll. During the fiscal year ended June 30, 2016, the District made contributions toward the ARC amounting to \$9,764 to the plan which represented 4.86% of the \$194,432 total District payroll. As a result, the District has recorded the Net OPEB Obligation (NOO), representing the difference between the ARC and actual contributions, as presented below:

Net OPEB obligation at June 30, 2015		\$23,651
Annual required contribution (ARC)	\$11,590	
Interest on net OPEB obligation	1,671	
Adjustments to the ARC	(1,719)	
Annual OPEB cost - fiscal 2014/2015	<u>11,542</u>	
Less contributions made during fiscal year:		
Contributions to Northern Trust	(9,454)	
Interest on Contributions to Northern Trust	(417)	
Contributions	<u>(9,871)</u>	
Contributions less than ARC		<u>1,671</u>
Net OPEB obligation at June 30, 2016		25,322
Annual required contribution (ARC)	12,019	
Interest on net OPEB obligation	1,794	
Adjustments to the ARC	(1,846)	
Annual OPEB cost - fiscal 2016/2017	<u>11,967</u>	
Less contributions made during fiscal year:		
Contributions to Northern Trust	(9,764)	
Interest on Contributions to Northern Trust	(375)	
Contributions	<u>(10,139)</u>	
Increase in net OPEB obligations		<u>1,828</u>
Net OPEB obligation at June 30, 2017		<u><u>\$27,150</u></u>

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

A schedule of funding progress for the pension and post-employment healthcare plans presenting multiple-year trend information as to whether the actuarial value of plan assets is increasing or decreasing relative to the actuarial accrued liability for benefits over time is presented immediately following the notes to basic financial statements in the Required Supplementary Information Section.

G. Net Pension Liability

The net pension liability (i.e., the Plan’s liability determined in accordance with GASB No. 68 less the fiduciary net position) as of June 30, 2018 and 2017 is as shown below:

	2018	2017
Total Pension Liability	\$2,068,015	\$1,995,863
Plan Fiduciary Net Position	(1,580,556)	(1,391,771)
Employer Net Pension Liability	<u>\$487,459</u>	<u>\$604,092</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	76.43%	69.73%
Covered payroll	\$182,032	\$174,586
Liability as a Percentage of Covered payroll	267.79%	346.01%

Actuarial valuation of the ongoing System involve estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The Schedule of Employers’ net pension liability presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required Supplementary Information section. The net pension liabilities was measured as of June 30, 2017 and 2016 and are not adjusted or rolled forward to the June 30, 2018 and 2017 reporting dates, respectively.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

For the year ended June 30, 2018, the District recognized pension expense as follows:

	Water	Wastewater	Total
Contributions made after measurement date	(\$60,802)	(\$10,418)	(\$71,220)
Current year changes in the net pension liability:			
Service cost	35,094	6,011	41,105
Interest on total pension liability	123,277	21,116	144,393
Member contributions	(13,506)	(2,313)	(15,819)
Projected earning on investments	(85,862)	(14,707)	(100,569)
Difference in expected and actual earnings	(16,632)	(2,849)	(19,481)
Other	10,937	471	11,408
Total current year activity	53,308	7,729	61,037
Total pension expense	(7,494)	(2,689)	(10,183)

At June 30, 2018, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
	Water	Wastewater	Water	Wastewater
Pension contributions subsequent to measurement date	\$60,802	\$10,418		
Differences between expected and actual experience	2,866	491	\$16,144	\$2,765
Changes of assumptions	30,900	5,293		
Change in proportion and differences between employer contributions and proportionate share of contributions	2,608			2,608
Net difference between projected and actual earnings on pension plan investments			29,273	5,014
Total	\$97,176	\$16,202	\$45,417	\$10,387

A total of \$71,220 was reported as deferred outflows of resources related to contributions subsequent to the measurement date and will be recognized as a reduction of the net pension liability in the year ended June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Year Ended	Deferred Outflows of Resources		Deferred Inflows of Resources	
June 30	Water	Wastewater	Water	Wastewater
2019	\$6,915	\$1,100	\$13,916	3,686
2020	6,915	1,100	(4,829)	(31)
2021	6,915	1,100	2,131	775
2022	6,915	1,100	24,569	4,371
2023	8,714	1,384	9,630	1,586

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

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 weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and projected arithmetic real rates of return, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption for each major asset class are summarized below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Large Cap Equity	36%	5.78%
Domestic Small Cap Equity	4%	6.45%
Developed International Equity	12%	7.03%
Emerging Markets Equity	3%	9.46%
Domestic Bonds	10%	0.99%
Non-Core Fixed Income	10%	3.46%
Real Estate	5%	4.50%
Covered Calls	20%	5.00%
Total	100%	

The discount rates used to measure the total pension liability were 7.25% and 7.25% as of June 30, 2018 and June 30, 2017, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Pension Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on Pension Plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of both June 30, 2018 and June 30, 2017.

In accordance with GASB 68 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the following table presents the net pension liability of the Plan as of June 30, 2018, calculated using the discount rate of 7.25%, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount (7.25%)	1% Increase (8.25%)
Net Pension Liability	\$751,606	\$487,459	\$267,390

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)
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H. Net OPEB Liability

The net OPEB liability (The Plan’s liability determined according to GASB 75) as of June 30, is shown below:

	2018	2017
Total OPEB Liability	\$167,894	\$171,443
Plan Fiduciary Net Position	(32,088)	(26,358)
Employer Net OPEB Liability	\$135,806	\$145,085
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	19.11%	15.37%

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an experience study for the period from July 1, 2012 through June 30, 2017. They are the same as the assumptions used in the June 30, 2017 funding actuarial valuation except the discount rate is calculated as a blend of the investment return on plan assets and municipal bond rate in accordance with GASB 74, and implicit subsidy benefit payments are based on the age-based costs shown in the June 30, 2017 GASB 43/45 valuation report. The net OPEB liability measured as of June 30, 2018 and 2017 have been determined by rolling forward. The results of the actuarial valuations as of June 30, 2017 and 2016, respectively. A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

Valuation date	June 30, 2017
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll
Remaining amortization period	Plan changes, assumption changes, and experience gains/losses prior to July 1, 2011 are amortized over separate decreasing 30-year amortization periods. On or after July 1, 2011, plan changes are amortized over separate decreasing 15-year periods; assumption changes are amortized over separate decreasing 25-year periods; and experience gains/losses are amortized over separate decreasing 20-year periods.
Assets valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five year period, further adjusted, if necessary, to be within 30% of the market value.
Actuarial assumptions:	
Net Investment Return	5.53%, net of investment and administrative expenses.
Average projected salary increases*	Ranges from 4.00% to 9.50% based on years of service*
Inflation rate	3.00%
Health Care Trend	Non-Medicare: 7% graded to ultimate 4.50% over 10 years Medicare: 6.50% graded to ultimate 4.50% over 8 years
HIB increases	0.00%
Mortality	<i>Pre-retirement:</i> Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Service Retirement and All Beneficiaries:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Disability Retirement:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward nine years for males and females

* Includes inflation of 3.00% plus across the board salary increases of 0.50% plus merit and promotional increases

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

The long-term expected rate of return on OPEB 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 OPEB 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 weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin.

The target allocation and projected arithmetic real rates of return, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption for each major asset class are summarized below:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Large Cap Equity	36%	5.78%
Domestic Small Cap Equity	4%	6.45%
Developed International Equity	12%	7.03%
Emerging Markets Equity	3%	9.46%
Domestic Bonds	10%	0.99%
Non-Core Fixed Income	10%	3.46%
Real Estate	5%	4.50%
Covered Calls	20%	5.00%
Total	100%	

The municipal bond rates used to determine the blended discount rate, as discussed above, were 3.58% and 2.85%, which are based on the 20-year municipal bond rate for the Bond Buyer 20-Bond GO Index as of June 30, 2018 and June 30, 2017, respectively.

The discount rates used to measure the total OPEB liability were 5.53% and 5.12% as of June 30, 2018 and June 30, 2017, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates for the \$450/\$550 HIB Subsidy excluding the implicit subsidy that will continue to be paid on a pay-as-you-go basis. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the OPEB Plan's fiduciary net position was projected to be available to make projected future benefit payments for current plan members through June 30, 2042. Therefore, the long-term expected rate of return on OPEB Plan investments (7.25%) was applied to periods of projected benefit payments through June 30, 2042, and the 20-year municipal bond rate (3.58%) to determine the total OPEB liability as of June 30, 2018.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

Change in Net OPEB liability for fiscal year 2017-18 were as follows:

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/(Asset)
	(a)	(b)	(c) = (a) - (b)
Beginning Balance	\$171,443	\$26,358	\$145,085
Changes Recognized for the Measurement Period:			-
Service Cost	5,276	-	5,276
Interest on the total OPEB liability	8,797	-	8,797
Changes in benefit terms	-	-	-
Difference between expected and actual experience	(1,711)	-	(1,711)
Changes of assumptions	(6,107)	-	(6,107)
Contributions from the employer	-	9,764	(9,764)
Contributions from the employee	-	198	(198)
Net investment income	-	3,706	(3,706)
Administrative expenses	-	(26)	26
Benefit payments, including implicit subsidies *	(9,804)	(9,804)	-
Other **	-	1,892	(1,892)
Net Changes	(3,549)	5,730	(9,279)
Ending Balance	\$167,894	\$32,088	\$135,806

* Sum of cash benefit payments (\$7,912) and estimated implicit subsidy benefit payments (\$1,892)

** The total employer contributions for estimated implicit subsidy

In accordance with GASB 75 regarding the disclosure of the sensitivity of the net OPEB liability to changes in the discount rate, the following table presents the net OPEB liability of the Plan as of June 30, 2018, calculated using the discount rate of 5.53%, as well as what the Plan’s net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.53%) or 1-percentage point higher (6.53%) than the current rate:

	1% Decrease (4.53%)	Current Discount (5.53%)	1% Increase (6.53%)
Net OPEB Liability	\$152,786	\$135,806	\$121,246

Additionally, in accordance with GASB 75 regarding disclosure of the sensitivity of the net OPEB liability to changes in the trend rate (only applied to implicit subsidy and not the \$450/\$550 cash subsidy), the following table presents the net OPEB liability of the Plan as of June 30, 2018, calculated using the trend rate of 7.00% graded down to 4.50% over 10 years for non-Medicare medical plan costs; 6.50% graded down to 4.50% over 8 years for Medicare medical plan costs.

	1% Decrease	Current Trend	1% Increase
Net OPEB Liability	\$133,262	\$135,806	\$138,661

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

Components of OPEB Expense for fiscal year 2017-18 were as follows:

	<u>Water</u>	<u>Wastewater</u>	<u>Total</u>
Contributions made after the measurement date:	(\$8,431)	(\$1,444)	(\$9,875)
Change in the current year activity			
Service Cost	4,504	772	5,276
Interest on the Total OPEB Liability	7,509	1,287	8,796
Expensed portion of current-period changes in proportion and differences between entity's contributions and proportion share of contributions	40	(40)	
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	(266)	(46)	(312)
Expensed portion of current-period changes of assumptions or other inputs	(950)	(163)	(1,113)
Member contributions	(169)	(29)	(198)
Projected earnings on plan investments	(1,196)	(205)	(1,401)
Expensed portion of current-period differences between actual and projected earnings on plan investments	(393)	(67)	(460)
Administrative expense	22	4	26
Other	(1,615)	(277)	(1,892)
Total current year activity	<u>7,486</u>	<u>1,236</u>	<u>8,722</u>
Total OPEB expense	<u>(\$945)</u>	<u>(\$208)</u>	<u>(\$1,153)</u>

Components of deferred outflows and resources and deferred inflows of resources related to OPEB at June 30, 2018 were as follows:

	<u>Deferred Outflows of Resources</u>		<u>Deferred Inflows of Resources</u>	
	<u>Water</u>	<u>Wastewater</u>	<u>Water</u>	<u>Wastewater</u>
Employer contributions made subsequent to the measurement date	\$8,431	\$1,444		
Change in proportion and differences between employer contributions and proportionate share of contributions	180			\$180
Differences between expected and actual experience			\$1,195	205
Changes of assumptions			4,263	731
Net excess of projected over actual earnings on OPEB Plan investments (if any)			1,574	270
Deferred Inflows of Resources	<u>\$8,611</u>	<u>\$1,444</u>	<u>\$7,032</u>	<u>\$1,386</u>

\$9,875 reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the OPEB liability in the year ended June 30, 2019. Amounts reported as deferred outflows and resources and deferred inflows of resources related to OPEB will be recognized as future OPEB expense as follows:

	<u>Water System</u>	<u>Wastewater System</u>
2019	(\$1,569)	(\$316)
2020	(1,569)	(316)
2021	(1,569)	(316)
2022	(1,569)	(316)
2023	(576)	(122)

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

I. Public Employees’ Pension Reform Act (PEPRA)

Assembly Bill 340 (AB 340) created the Public Employees’ Pension Reform Act (PEPRA) that implemented new benefit formulas and final compensation periods, as well as new contribution requirements for new employees hired on or after January 1, 2013, who meet the definition of new member under PEPRA.

The table below provides the details of the new provisions.

Benefit Formula	2.5% at Age 67
Final Compensation Period	Average of last 3 years
Employer Contribution Rate as a percentage of payroll	36.16% of Reportable Compensation
Member Contribution Rate as a percentage of payroll	8.84% of Reportable Compensation

The employer contribution rate listed above was in effect until June 30, 2018. In accordance with the provisions of AB 340, the member contribution rate shown above was set at 50 percent of the expected total normal cost rate for the benefits that will apply to new members on January 1, 2013. The total normal cost rate used for this calculation is 45% of payroll for new members.

NOTE 9 – RISK MANAGEMENT

The District has purchased commercial insurance for general, property, public officials’ liability and workers’ compensation. During the fiscal year ended June 30, 2018, the District paid \$1,535 for current year coverage.

The District’s liability, property, and workers’ compensation risks are insured by commercial insurance carriers, all of which are subject to the District’s self-insurance retentions, which vary by type of coverage.

Selected other coverages are:

Coverage	Policy limit	Self-insurance retention
Workers' compensation	Statutory Limit	\$5,000
All risk property (except flood)	\$200,000	500
Flood	25,000	1,500
Liability	90,000	10,000 Water/ 10,000 Wastewater
Crime	10,000	25
Boiler and Machinery	10,000	25
Pardee and Camanche Dams	25,000	25
Main Wastewater Treatment Plant	25,000	25

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 9 – RISK MANAGEMENT (Continued)

Settled claims have not exceeded the District's policy limits in any of the past five fiscal years.

Claim expenses and liabilities are recorded when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. As of June 30, 2018, the amount of these liabilities was \$51,001. This amount (which has not been discounted) has been actuarially determined and includes an estimate of incurred but not reported losses. Changes in the reported liability are as follows:

	2018	2017
Liability at beginning of year	\$47,454	\$47,777
Current year claims and changes in estimates	8,735	7,618
Payments of claims	(5,188)	(7,941)
Liability at end of year	<u>\$51,001</u>	<u>\$47,454</u>
Estimated Liability:		
Due within one year	\$9,725	\$10,096
Due in more than one year	<u>41,276</u>	<u>37,358</u>
	<u>\$51,001</u>	<u>\$47,454</u>

NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES

GASB Statement No. 49, Accounting and Financial Reporting for Pollution Remediation Obligations, provides guidance on accounting and financial reporting for pollution remediation obligations to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities. Pollution remediation activities include: pre-cleanup activities, cleanup activities, external government oversight and enforcement, and operation and maintenance of the remedy. The following is a summary of the District's known environmental liabilities as of July 26, 2018, that may meet the requirements of GASB Statement No. 49:

- Under a NPDES permit issued by the San Francisco Regional Water Quality Control Board, discharges from the District's wet weather facilities are prohibited. In 2014, the District signed a Consent Decree on this matter that focuses on the excess wet weather flow entering the District's system and allows discharges to continue while work to reduce them is performed. The Consent Decree requires the District and its seven satellite agencies to do a range of work to reduce flows, including working with property owners to address leaks in their private sewer laterals. The Consent Decree is expected to be in place until 2036, at which time discharges will have ceased. The District's cost to meet the requirements in the Consent Decree is approximately \$5M/year.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)
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- In summer 2016, the Central Valley Regional Water Quality Control Board (CVRWQCB) requested that the District produce a technical report to reexamine the groundwater network at the Camanche North Shore (CANS) and Camanche South Shore (CASS) Wastewater Treatment Plants including the effectiveness of existing monitoring wells and hydraulic connections between the wastewater ponds and the aquifers. The technical report was provided in March 2017. The CVRWQCB stated in its winter 2018 response that it agreed with the CANS recommendations in the technical report and subsequently required the District to submit a work plan for new well installations and to conduct additional monitoring. In May 2018, the District submitted its response to the CVRWQCB, including the work plan for the new CANS wells. The CVRWQCB requested additional analysis for the CASS facility which is ongoing. It is possible that future analysis and communication with the CVRWQCB could mandate the District to construct wastewater treatment pond upgrades. At this preliminary planning stage, it is estimated that the cost would be approximately \$6.6M to upgrade the existing facilities or, alternatively, approximately \$7.8M to construct a joint wastewater project with Amador County.

- The Alameda County Environmental Health Agency (County) requested that the District conduct site investigations at the Adeline Maintenance Center (AMC) Shops to define the extent of petroleum hydrocarbons in soil and groundwater associated with former USTs. The District completed site investigations in accordance with an approved work plan in 2009. The results indicated that elevated concentrations of petroleum hydrocarbons remain in onsite soil and groundwater in localized areas near the former USTs. In June 2016 the County then requested that the District conduct a Sensitive Receptor Survey for the AMC Shops parcel as well as a Site Conceptual Model for the Anderson Building (located within the AMC complex parcel) and that all environmental data collected during previous investigations be posted to the State's GeoTracker website in electronic format, followed by a meeting with the County to agree upon final actions necessary to obtain regulatory closure of the site under the State Water Resource Control Board's Low Threat Closure Policy. The District has submitted the requested Sensitive Receptor Survey, Site Conceptual Model and a Site Investigation Work Plan for the Anderson Building for the AMC Shops parcel. The County met with the District in July 2018 to discuss next steps towards site closure. The County concurred with the work plans with conditions and additional sampling will be performed as requested. A final report on the work that is completed will be submitted to the County by October 11, 2018.

- On April 8, 2015, approximately 170 cubic yards of cellular concrete being used at a District construction site was accidentally released into a storm drain in Oakland, CA. The incident occurred when cellular concrete was being added to a 1,500 foot segment of an abandoned 24-inch water main line. The cellular concrete flowed through enclosed storm drain pipes and open creek channels following the release. District staff immediately initiated emergency response and an incident command structure to commence cleanup of the creek; the cleanup took approximately 4 weeks. The cleanup phase then transitioned into a long term restoration phase which is nearing completion. Enforcement negotiation is complete; the finale penalty amount was \$426. The District has been monitoring the creek annually since the spill occurred and the last round of sampling for water quality, streambed elevation, and biota was completed in May and June of 2018. In July 2018 the District requested closure on the remaining permits related to this spill since the creek has rebounded to its pre-incident condition.

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(Dollars in Thousands)**

NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)

- The District operates many facilities throughout Northern California that have NPDES permits, waste discharge requirements, and air permits. The total estimated liability for all known violations, excluding the items detailed above, is less than \$350.

NOTE 11 - CONTINGENT LIABILITIES

The District is a defendant in a number of lawsuits which have arisen in the normal course of business including challenges over certain rates and charges. The ultimate outcome of these matters is not presently determinable. In the opinion of the District, these actions when finally adjudicated will not have a material adverse effect on the financial position of the District.

NOTE 12 – COMMITMENTS AND CONTINGENCIES

Central Valley Project

In December 1970, the District entered into a contract with the US Bureau of Reclamation for access to up to 150,000 acre feet per year of Central Valley Project (CVP) water from a diversion point on the American River. The successor contract, the Long Term Renewal Contract, was executed in April 2006 with a 40 year term. The Long Term Renewal Contract provides for delivery of up to 133,000 acre feet per year of CVP water in dry years to supplement the District's surface water supplies. Deliveries to the District are limited to a 165,000 acre foot total over any three successive dry years. In years in which the District takes delivery of CVP water, the District's allocated CVP capital cost and the District's operations and maintenance deficit balance will be paid down commensurately with the quantity of water delivered. For example, if the District had to take delivery of 80,000 acre feet in fiscal year 15, the District's CVP capital and deficit balances would each be reduced by approximately 20%. The balances must be paid off by 2030.

REQUIRED SUPPLEMENTAL INFORMATION

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EAST BAY MUNICIPAL UTILITY DISTRICT
REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED JUNE 30, 2018
(Dollars in thousands)

(1) Pension Plan

Schedule of Changes in Employer's Net Pension Liability (in thousands):

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	\$41,106	\$37,828	\$36,791	\$34,987	\$34,857
Interest	144,392	138,135	131,595	127,558	120,810
Change of benefit terms					
Differences between expected and actual experience	(22,641)	5,278	(1,390)	438	(402)
Changes of assumptions		52,596		18,421	
Benefit payments, including refunds of employee contributions	(90,705)	(83,886)	(77,790)	(71,232)	(65,427)
Net change in total pension liability	72,152	149,951	89,206	110,172	89,838
Total pension liability - beginning	1,995,863	1,845,912	1,756,706	1,646,534	1,556,696
Total pension liability - ending (a)	<u>\$2,068,015</u>	<u>\$1,995,863</u>	<u>\$1,845,912</u>	<u>\$1,756,706</u>	<u>\$1,646,534</u>
Plan fiduciary net position					
Contributions - employer	\$67,096	\$65,218	\$64,177	\$61,660	\$53,795
Contributions - employee	15,820	14,741	13,260	11,963	10,427
Net investment income	197,977	13,934	59,288	216,601	136,630
Benefit payments, including refunds of employee contributions	(90,705)	(83,886)	(77,790)	(71,232)	(65,427)
Administrative expense	(1,403)	(1,289)	(1,269)	(1,233)	(1,200)
Net change in plan fiduciary net position	188,785	8,718	57,666	217,759	134,225
Plan fiduciary net position - beginning	1,391,771	1,383,053	1,325,387	1,107,628	973,403
Plan fiduciary net position - ending (b)	<u>\$1,580,556</u>	<u>\$1,391,771</u>	<u>\$1,383,053</u>	<u>\$1,325,387</u>	<u>\$1,107,628</u>
Plan's net pension liability - ending (a) - (b)	<u>\$487,459</u>	<u>\$604,092</u>	<u>\$462,859</u>	<u>\$431,319</u>	<u>\$538,906</u>

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT
REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED JUNE 30, 2018
(Dollars in thousands)**

(2) Pension Plan

Schedule of Employer's Net Pension Liability (in thousands):

	2018	2017	2016	2015	2014
Total pension liability	\$2,068,015	\$1,995,863	\$1,845,912	\$1,756,706	\$1,646,534
Plan fiduciary net position	(1,580,556)	(1,391,771)	(1,383,053)	(1,325,387)	(1,107,628)
Net pension liability	<u>\$487,459</u>	<u>\$604,092</u>	<u>\$462,859</u>	<u>\$431,319</u>	<u>\$538,906</u>
Plan fiduciary net position as a percentage of total pension liability	76.43%	69.73%	74.93%	75.45%	67.27%
Covered payroll *	\$182,032	\$174,586	\$166,886	\$159,513	\$153,707
Plan net pension liability as percentage of covered employee payroll	267.79%	346.01%	277.35%	270.40%	350.61%

* In accordance with GASB 82, the covered payroll amounts are defined as the payroll on which contributions to a pension plan are based. The covered payroll amounts for fiscal year 2014 through fiscal year 2016, were updated to adopt the provisions of GASB 82.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

(3) Pension Plan

Schedule of Employer's Contributions (in thousands):

Year ended June 30	Actuarially determined contributions	Contributions in relation to the actuarially determined contributions	Contributions deficiency (excess)	Covered-employee payroll *	Contributions as a percentage of covered employee payroll
2008	\$37,387	\$37,387	\$0	\$152,538	24.51%
2009	39,485	39,485	0	158,193	24.96%
2010	44,031	44,031	0	161,641	27.24%
2011	50,987	50,987	0	160,336	31.80%
2012	52,156	52,156	0	158,481	32.91%
2013	53,795	53,795	0	153,707	35.00%
2014	61,660	61,660	0	159,513	38.66%
2015	64,177	64,177	0	166,886	38.46%
2016	65,218	65,218	0	174,586	37.36%
2017	67,096	67,096	0	182,032	36.86%

* Derived by dividing the contributions in relation to the actuarial determined contributions by the contributions as a percentage of covered employee payroll. These amounts may therefore be different from the actual payrolls of the District. However, in accordance with GASB 82, the covered payroll amounts for the actuarial valuations for fiscal year 2013 through current are defined as the payroll on which contributions to the pension plan are based.

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT
REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED JUNE 30, 2018
(Dollars in thousands)**

(4) Pension Plan

Schedule of Investment Returns:

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money weighted rate of return, net of investment expense	16.46%	19.72%	4.46%	6.67%	19.42%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

(5) Post-Employment Healthcare Plan

Schedule of Changes in Employer's Net OPEB Liability (in thousands):

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total OPEB liability			
Service cost	\$5,276	\$4,514	\$4,460
Interest	8,797	9,374	9,159
Change of benefit terms			
Difference between actual and expected experience	(1,711)	(3,286)	(309)
Change of assumptions	(6,107)	12,471	
Benefit payments - cash*		(7,685)	(7,394)
Benefit payments - estimated implicit subsidy	(9,804)	(2,164)	(2,241)
Net change in total OPEB liability	(3,549)	13,224	3,675
Total OPEB liability - beginning	171,443	158,219	154,544
Total OPEB liability - ending (a)	<u>\$167,894</u>	<u>\$171,443</u>	<u>\$158,219</u>
Plan fiduciary net position			
Employer contributions - cash	\$9,764	\$9,454	\$8,964
Employer contributions - estimated implicit subsidy		2,164	2,241
Employer contributions - total	\$9,764	\$11,618	\$11,205
Employee contributions	198	184	167
Net investment income	3,706	271	938
Benefit payments - cash*		(7,685)	(7,394)
Benefit payments - estimated implicit subsidy	(9,804)	(2,164)	(2,241)
Administrative expense	(26)	(22)	(20)
Other	1,892		
Net change in plan fiduciary net position	5,730	2,202	2,655
Plan fiduciary net position - beginning	26,358	24,156	21,501
Plan fiduciary net position - ending (b)	<u>\$32,088</u>	<u>\$26,358</u>	<u>\$24,156</u>
Plan's net OPEB liability - ending (a) - (b)	<u>\$135,806</u>	<u>\$145,085</u>	<u>\$134,063</u>

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

* Benefit Payments and Employer contributions - cash and estimated implicit subsidy report together in FY 18

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT
REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED JUNE 30, 2018
(Dollars in thousands)**

(6) Post-Employment Healthcare Plan

Schedule of Employer's Net OPEB Liability (in thousands):

	2018	2017	2016
Total OPEB liability	\$167,894	\$171,443	\$158,219
Plan fiduciary net position	(32,088)	(26,358)	(24,156)
Employer net OPEB liability	<u>\$135,806</u>	<u>\$145,085</u>	<u>\$134,063</u>
Plan fiduciary net position as a percentage of total OPEB liability	19.11%	15.37%	15.27%
Covered payroll	\$182,032	\$174,586	\$166,886
Plan net OPEB liability as a percentage of covered payroll	74.61%	83.10%	80.33%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

(7) Post-Employment Healthcare Plan

Schedule of Employer's Contributions (in thousands):

Year ended June 30	Actuarially determined contributions	Contributions in relation to the actuarially determined contributions	Contributions deficiency (excess)	Covered payroll *	Contributions as a percentage of covered employee payroll
2008	\$7,216	\$7,216	\$0	\$152,538	4.73%
2009	6,318	6,318	0	158,193	3.99%
2010	7,725	7,725	0	161,641	4.78%
2011	7,494	7,494	0	160,336	4.67%
2012	7,495	7,495	0	158,481	4.73%
2013	7,772	7,772	0	153,707	5.06%
2014	8,457	8,457	0	159,513	5.30%
2015	8,964	8,964	0	166,886	5.37%
2016	9,454	9,454	0	174,586	5.42%
2017	9,764	9,764	0	182,032	5.36%

* Derived by dividing the contributions in relation to the actuarial determined contributions by the contributions as a percentage of covered employee payroll. These amounts may therefore be different from the actual payrolls of the District. However, in accordance with GASB 82, the covered payroll amounts for the actuarial valuations for fiscal year 2013 through current are defined as the

Unaudited

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED JUNE 30, 2018
(Dollars in thousands)

(8) Notes to Required Supplementary Information

The pension-related information presented in the required supplementary schedules was determined as part of the Pension actuarial valuation at the date indicated. Additional information as of the latest Pension actuarial valuation is as follows:

Valuation date	June 30, 2017
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll
Remaining amortization period	Plan changes are amortized over separate decreasing 15-year periods; assumptions changes are amortized over separate decreasing 25-year periods; experience gains/losses are amortized over separate decreasing 20-year periods.
Assets valuation method	Market value of assets less unrecognized returns in each last five years. Unrecognized return is equal to the difference between the actual market return and the of the expected return on the market value, and is recognized over a five year period, further adjusted, if necessary, to be within 30% of the market value.
Actuarial assumptions:	
Net Investment Return	7.25%, net of investment and administrative expenses.
Average projected salary increases*	Ranges from 4.00% to 9.50% based on years of service*
Inflation rate	3.00%
Cost-of-living adjustments	3.00% per annum
Mortality	<i>Pre-retirement:</i> Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Service Retirement and All Beneficiaries:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Disability Retirement:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward nine years for males and females

* Includes inflation of 3.00% plus across the board salary increases of 0.50% plus merit and promotional increases

Unaudited.

EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION
FOR THE YEAR ENDED JUNE 30, 2018
(Dollars in thousands)

(8) Notes to Required Supplementary Information (Continued)

The OPEB-related information presented in the required supplementary schedules was determined as part of the OPEB actuarial valuation at the date indicated. Additional information as of the latest OPEB actuarial valuation is as follows:

Valuation date	June 30, 2017
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll
Remaining amortization period	Plan changes, assumption changes, and experience gains/losses prior to July 1, 2011 are amortized over separate decreasing 30-year amortization periods. On or after July 1, 2011, plan changes are amortized over separate decreasing 15-year periods; assumption changes are amortized over separate decreasing 25-year periods; and experience gains/losses are amortized over separate decreasing 20-year periods.
Assets valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five year period, further adjusted, if necessary, to be within 30% of the market value.
Actuarial assumptions:	
Net Investment Return	5.53%, net of investment and administrative expenses.
Average projected salary increases*	Ranges from 4.00% to 9.50% based on years of service*
Inflation rate	3.00%
Health Care Trend	Non-Medicare: 7% graded to ultimate 4.50% over 10 years Medicare: 6.50% graded to ultimate 4.50% over 8 years
HIB increases	0.00%
Mortality	<i>Pre-retirement:</i> Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Service Retirement and All Beneficiaries:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward two years for males and one year for females <i>After Disability Retirement:</i> Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional improvement scale MP-2015, set forward nine years for males and females

* Includes inflation of 3.00% plus across the board salary increases of 0.50% plus merit and promotional increases

Unaudited.

SUPPLEMENTAL INFORMATION

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EAST BAY MUNICIPAL UTILITY DISTRICT
EMPLOYEE RETIREMENT SYSTEM TRUST FUND
COMBINING BALANCE SHEET

June 30, 2018

(With summarized comparative financial information as of June 30, 2017)

(DOLLARS IN THOUSANDS)

	2018			2017
	Pension plan	Post-employment	Total	Total
	benefits	healthcare		
	benefits	benefits		
Assets:				
Cash and cash equivalents, at fair value	\$40,348	\$848	\$41,196	\$48,988
Invested securities lending collateral	46,134	970	47,104	108,858
Prepaid expenses		536	536	518
Receivables:				
Brokers, securities sold	2,374	50	2,424	4,449
Employer	1,190	170	1,360	1,043
Plan members	288		288	220
Interest and dividends	2,618	55	2,673	2,341
Total receivables	6,470	275	6,745	8,053
Investments, at fair value:				
U.S. government obligations	105,251	2,213	107,464	66,948
Municipal bonds	2,413	51	2,464	2,135
Domestic corporate bonds	297,256	6,250	303,506	166,149
International bonds	17,899	376	18,275	16,628
Domestic stocks	762,454	16,030	778,484	1,005,785
International stocks	409,957	8,619	418,576	222,051
Real estate	87,784	1,845	89,629	84,282
Total investments	1,683,014	35,384	1,718,398	1,563,978
Total assets	1,775,966	38,013	1,813,979	1,730,395
Liabilities:				
Accounts payable and accrued expenses	2,122	45	2,167	2,061
Payables to brokers, securities purchased	11,232	236	11,468	6,832
Securities lending collateral	46,134	970	47,104	108,858
Total liabilities	59,488	1,251	60,739	117,751
Net position held in trust for pension benefits and post-employment healthcare benefits.	\$1,716,478	\$36,762	\$1,753,240	\$1,612,644

EAST BAY MUNICIPAL UTILITY DISTRICT
EMPLOYEES' RETIREMENT SYSTEM TRUST FUND
COMBINING STATEMENT OF CHANGES IN NET POSITION

For the Year Ended June 30, 2018

(With summarized comparative financial information for the year ended June 30, 2017)

(DOLLARS IN THOUSANDS)

	2018			2017
	Pension plan	Post-employment	Total	Total
	benefits	healthcare		
	benefits	benefits		
Additions:				
Contributions:				
Employer	\$71,221	\$9,875	\$81,096	\$76,860
Plan members	16,860	219	17,079	16,018
Total contributions	88,081	10,094	98,175	92,878
Investment income:				
Net (depreciation)				
in fair value of investments:				
Traded securities	120,700	2,396	123,096	176,883
Real estate	1,365	27	1,392	1,329
Interest	7,826	155	7,981	6,731
Dividends	21,786	432	22,218	21,014
Real estate operating (loss), net	1,143	23	1,166	1,120
	152,820	3,033	155,853	207,077
Less:				
Investment expense	(3,958)	(79)	(4,037)	(4,607)
Borrowers' rebates and other				
agent fees on securities				
lending transactions	(1,438)	(29)	(1,467)	(787)
Net investment (loss)	147,424	2,925	150,349	201,683
Total additions, net	235,505	13,019	248,524	294,561
Deductions:				
Benefits paid	97,669	8,315	105,984	98,152
Refund of contributions	393		393	465
Administrative expenses	1,521	30	1,551	1,429
Total deductions	99,583	8,345	107,928	100,046
Change in net position	135,922	4,674	140,596	194,515
Net position:				
Beginning of year	1,580,556	32,088	1,612,644	1,418,129
End of year	\$1,716,478	\$36,762	\$1,753,240	\$1,612,644

**INDEPENDENT AUDITOR'S REPORT ON
INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN
AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE
WITH *GOVERNMENT AUDITING STANDARDS***

Board of Directors
East Bay Municipal Utility District
Oakland, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of the East Bay Municipal Utility District, as of and for the year ended June 30, 2018 and have issued our report thereon dated August 27, 2018. Our report included an emphasis of a matter paragraph disclosing the implementation of a new accounting principle.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the District's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

We have also issued a separate Memorandum on Internal Control dated August 27, 2018 which is an integral part of our audit and should be read in conjunction with this report.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Maze + Associates". The signature is written in a cursive, flowing style.

Pleasant Hill, California
August 27, 2018



FINANCIAL REVIEW OF FISCAL YEAR 2018

Memorandum on Internal Controls
and
Required Communication

EAST BAY MUNICIPAL UTILITY DISTRICT
MEMORANDUM ON INTERNAL CONTROL
AND
REQUIRED COMMUNICATIONS
FOR THE YEAR ENDED
JUNE 30, 2018

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**EAST BAY MUNICIPAL UTILITY DISTRICT
MEMORANDUM ON INTERNAL CONTROL
AND
REQUIRED COMMUNICATIONS**

For the Year Ended June 30, 2018

Table of Contents

	<u>Page</u>
<i>Memorandum on Internal Control</i>	113
<i>Required Communications</i>	115
Significant Audit Findings:	
Accounting Policies	115
Unusual Transactions, Controversial or Emerging Areas	116
Accounting Estimates	116
Disclosures	116
Difficulties Encountered in Performing the Audit	116
Corrected and Uncorrected Misstatements	116
Disagreements with Management	116
Management Representations	117
Management Consultations with Other Independent Accountants	117
Other Audit Findings or Issues	117
Other Matters:	
Other Information Accompanying the Financial Statements	117

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MEMORANDUM ON INTERNAL CONTROL

To the Board of Directors of
the East Bay Municipal Utility District
Oakland, California

In planning and performing our audit of the financial statements of the East Bay Municipal Utility District (District) as of and for the year ended June 30, 2018, in accordance with auditing standards generally accepted in the United States of America, we considered the District's internal control over financial reporting (internal control) as a basis for designing our auditing procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the District's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

This communication is intended solely for the information and use of management, Board of Directors, others within the organization, and agencies and pass-through entities requiring compliance with *Government Auditing Standards*, and is not intended to be and should not be used by anyone other than these specified parties.

A handwritten signature in black ink that reads 'Maze + Associates' in a cursive, stylized font.

Pleasant Hill, California
August 27, 2018

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REQUIRED COMMUNICATIONS

To the Board of Directors of
the East Bay Municipal Utility District
Oakland, California

We have audited the basic financial statements of the East Bay Municipal Utility District (District) for the year ended June 30, 2018. Professional standards require that we communicate to you the following information related to our audit under generally accepted auditing standards and *Government Audit Standards*.

Significant Audit Findings

Accounting Policies

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the District are included in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year, except as follows:

Statement No. 75 – Accounting and Financial Reporting for Post-employment Benefits Other Than Pensions

The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for post-employment benefits other than pensions (other post-employment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. This Statement results from a comprehensive review of the effectiveness of existing standards of accounting and financial reporting for all post-employment benefits (pensions and OPEB) with regard to providing decision-useful information, supporting assessments of accountability and inter-period equity, and creating additional transparency.

This Statement replaces the requirements of Statements No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB. Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, establishes new accounting and financial reporting requirements for OPEB plans.

The scope of this Statement addresses accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. For defined benefit OPEB, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed.

This pronouncement became effective and required a restatement of beginning net position as discussed in Note 1R to the financial statements.

Unusual Transactions, Controversial or Emerging Areas

We noted no transactions entered into by the District during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting Estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the District's financial statements are depreciation, claims liability and actuarial estimates for the Employees' Retirement System.

Management's estimate of depreciation is based on the estimated useful lives of the capital assets. The claims liability is based on the District Attorney's estimates of current and potential litigation, as well as actuary studies provided for the District as of June 30, 2018. The value of the assets, liability and assumptions used to determine annual required contributions to the Employees' Retirement System is determined by an actuary study provided to the District as of June 30, 2018. We evaluated the key factors and assumptions used to develop the depreciation expense, claims liability and reviewed the current actuary study for claims liability and determined that they are reasonable in relation to the basic financial statements taken as a whole.

Disclosures

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. We did not propose any audit adjustments that, in our judgement, could have a significant effect, either individually or in the aggregate, on the District's financial reporting process.

Professional standards require us to accumulate all known and likely uncorrected misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. We have no such misstatements to report to the Board of Directors.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in a management representation letter dated August 27, 2018.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the District's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the District's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Information Accompanying the Financial Statements

We applied certain limited procedures to the required supplementary information that accompanies and supplements the basic financial statements. Our procedures consisted of inquiries of management regarding 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 did not audit the required supplementary information and do not express an opinion or provide any assurance on the required supplementary information.

We were engaged to report on the supplementary information which accompany the financial statements, but are not required supplementary information. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

This information is intended solely for the use of the Finance Committee, Board of Directors and management and is not intended to be, and should not be, used by anyone other than these specified parties.

Maze + Associates

Pleasant Hill, California
August 27, 2018

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FINANCIAL REVIEW OF FISCAL YEAR 2018

Annual Budget Performance



FY18 ANNUAL BUDGET PERFORMANCE

This section provides a budget analysis for the Water and Wastewater Systems of the East Bay Municipal Utility District for Fiscal Year 2018.

The objectives of this section are to:

- Provide an analysis of operating revenues and expenditures compared to budget; and
- Provide a summary of major capital project expenditures.

Water System Overview

- **Revenues & Expenses:** Total revenues were greater than budget by \$78.4 million. Operating expenses were less than budget by \$42.7 million.
- **Rate Stabilization Funds:** Actual year-end revenues and expense savings were stronger than anticipated which eliminated the planned draw of \$26.0 million from the Rate Stabilization Fund.

Wastewater System Overview

- **Revenues & Expenses:** Total revenues were greater than budget by \$14.7 million. Operating expenses were less than budget by \$5.0 million.

Details on revenues, operating expenses, and major capital project expenditures for each system are provided in this report.



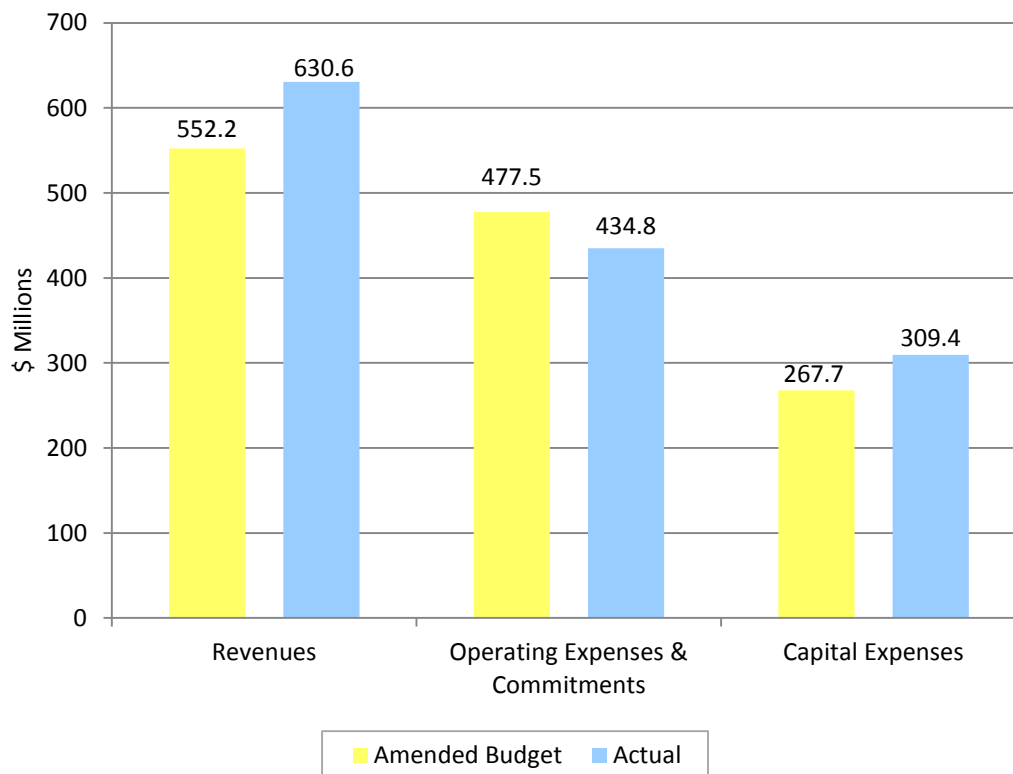
FY18 ANNUAL BUDGET PERFORMANCE

WATER SYSTEM

Summary of Revenues & Expenses

The following chart compares budget to actuals for revenues, operating expenses and capital cash flow expenditures.

- Total Water System revenues were \$630.6 million or 114% of fiscal year budgeted revenues of \$552.2 million.
- Operating expenses and commitments totaled \$434.8 million or 91% of the total amended budget of \$477.5 million.
- Capital cash flow expenses totaled \$309.4 million or 116% of the total budgeted cash flow of \$267.7 million. Spending fell within the total amount of appropriations approved by the Board.



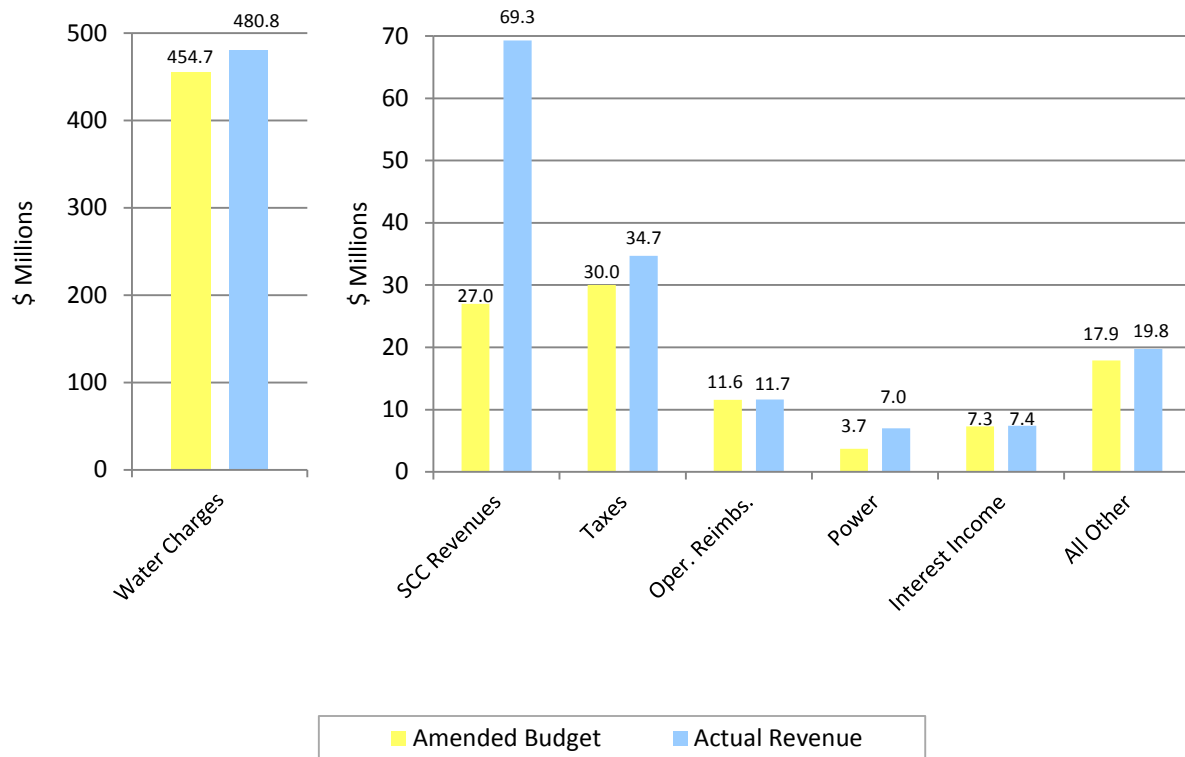
Actual year-end revenues and expense savings were stronger than forecasted which eliminated the planned draw of \$26.0 million from the Rate Stabilization Fund.



FY18 ANNUAL BUDGET PERFORMANCE

Water System Revenues

The following charts show the various sources of Water System revenue including a comparison to budget. Total revenues were \$630.6 million or 114% of budgeted revenues.



WATER REVENUES (\$ Millions)			
	Amended Budget	YTD Actuals	% of Budget
Water Charges	454.7	480.8	106%
SCC Revenues	27.0	69.3	257%
Taxes	30.0	34.7	116%
Operating Reimbursements	11.6	11.7	100%
Power	3.7	7.0	189%
Interest Income	7.3	7.4	101%
All Other	17.9	19.8	110%
Total Revenues	552.2	630.6	114%

Numbers in the table may be rounded.



FY18 ANNUAL BUDGET PERFORMANCE

Major revenue variances were:

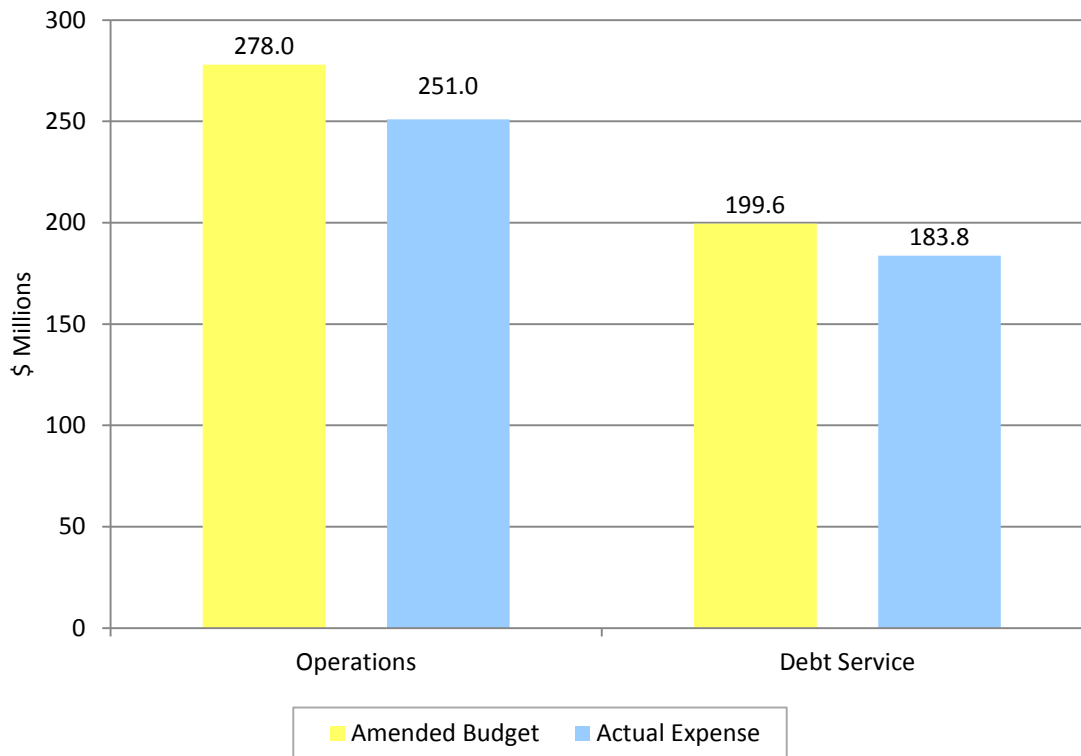
- **Water Charges** of \$480.8 million were 106% of the \$454.7 million budget which is based on billed water consumption of 137 MGD. Water consumption was 144.5 MGD which is 8.9% higher compared to 132.7 MGD for the prior fiscal year.
- **SCC Revenues** of \$69.3 million were 257% of the \$27.0 million budget due to the strong local building activity within the service area and a conservative approach to budgeting.
- **Taxes** of \$34.7 million were 116% of the \$30.0 million budget due to an increase in the assessed value of sold properties and a conservative approach to budgeting.
- **Power** revenues of \$7.0 million were 189% of the \$3.7 million budget due to significant runoff which resulted in additional hydroelectric production.
- **All Other** revenues were \$19.8 million was 110% of the \$17.9 million budget due to a \$1.2 million surplus property sale of Stonewall Reservoir and the sale of surplus vehicles that were not anticipated at the time the budget was developed.



FY18 ANNUAL BUDGET PERFORMANCE

Water System Operating Expenses and Commitments

The following charts depict the operating budget spending by expenditure category for the Water System. Operating expenses and commitments for the fiscal year totaled \$434.8 million or 91% of the total amended budget of \$477.5 million.



OPERATING EXPENDITURES BY CATEGORY (\$ Millions)			
	Amended Budget	YTD Actuals	% of Budget
Operations	278.0	251.0	90%
Debt Service	199.6	183.8	92%
Total	477.5	434.8	91%

Numbers in the table may be rounded.

Major expense variances were:

- **Operations** savings of \$27.0 million are attributable to lower overall operational expenditures primarily for self-insured liability and workers' compensation claims; lower costs for North Richmond Water Reclamation Plant since the plant has been out-of-service; fewer contract services including program costs for lead sampling in K-12 schools; labor savings; higher than budgeted offset for the administration of capital which decrease operating expense by a like amount; and unspent contingency funds. Labor savings are attributable to a large number of vacant positions driven by retirements, additional staff authorized in the budget and the recruitment lead time.
- **Debt Service** savings of approximately \$15.8 million is primarily due to a favorable interest rate environment and a conservative approach to budgeting.

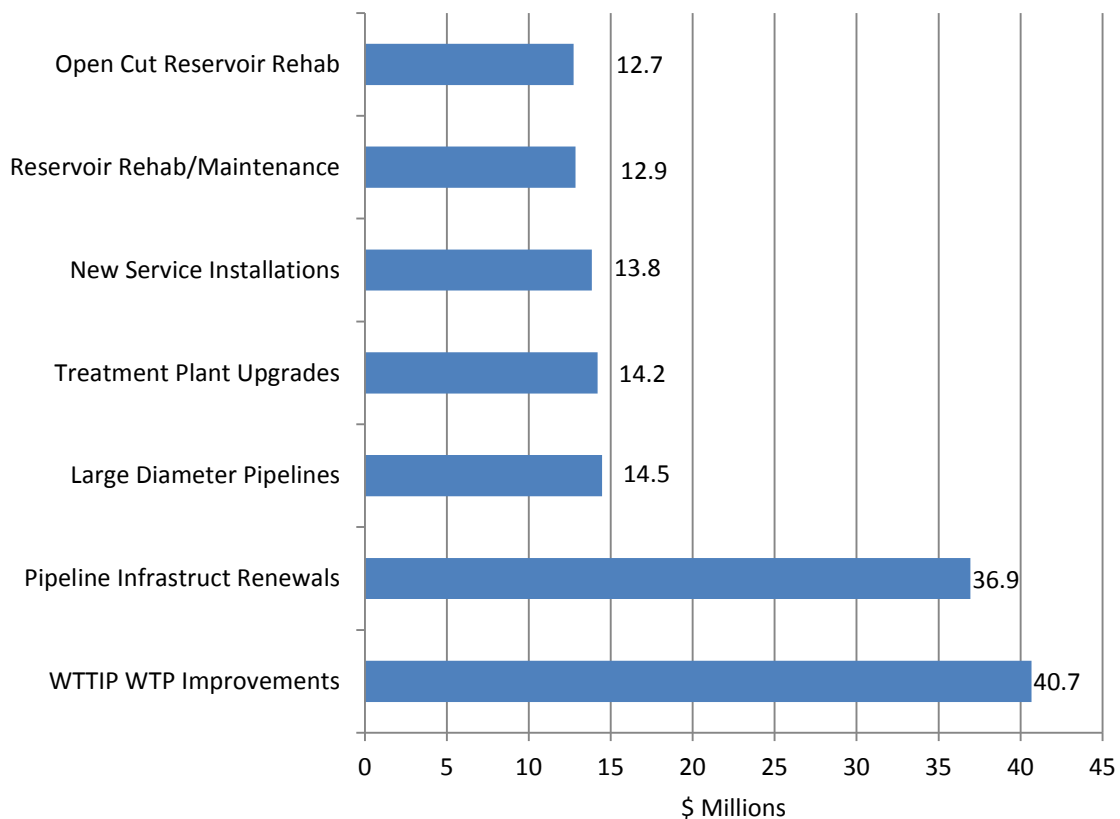


FY18 ANNUAL BUDGET PERFORMANCE

Water System Capital Expenditures and Commitments

For the fiscal year, capital cash flow expenditures totaled \$309.4 million or 116% of the total budgeted cash flow of \$267.7 million. Of this amount, direct costs associated with capital projects totaled \$261.3 million and the remaining \$48.1 million represents administration of capital expenses. Capital cash flow spending fell within the total amount of appropriations approved by the Board yet was ahead of budget primarily due to higher spending than planned for Sobrante and Upper San Leandro Water Treatment Plant Ozone Systems Improvement Project, an increase in the number of hydrants and new service installations than budgeted and greater than budgeted administration of capital.

The following chart illustrates the direct capital cash flow expenditures for the major Water System projects.





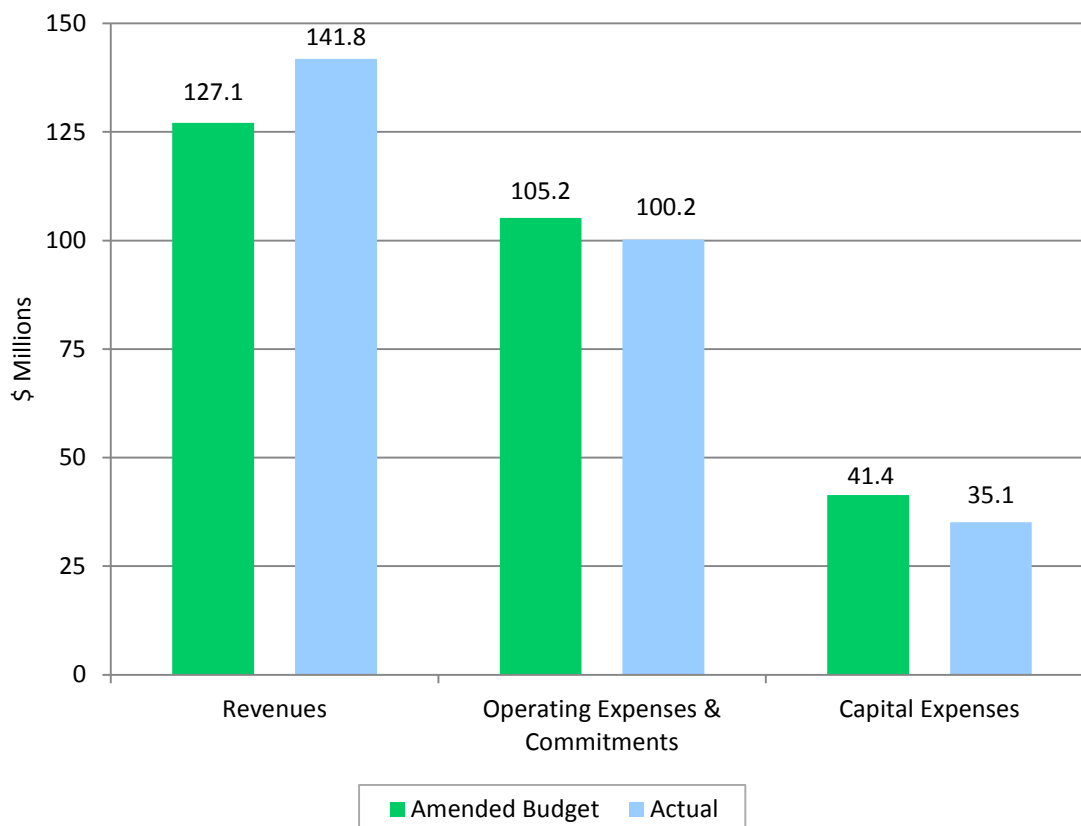
FY18 ANNUAL BUDGET PERFORMANCE

WASTEWATER SYSTEM

Summary of Revenues & Expenses

The following chart compares budget to actuals for revenues, operating expenses and capital cash flow expenditures:

- Total Wastewater System revenues were \$141.8 million or 112% of fiscal year budgeted revenues of \$127.1 million.
- Operating expenses and commitments totaled \$100.2 million or 95% of the total amended budget of \$105.2 million.
- Capital cash flow expenses totaled \$35.1 million or 85% of the total budgeted cash flow of \$41.4 million.

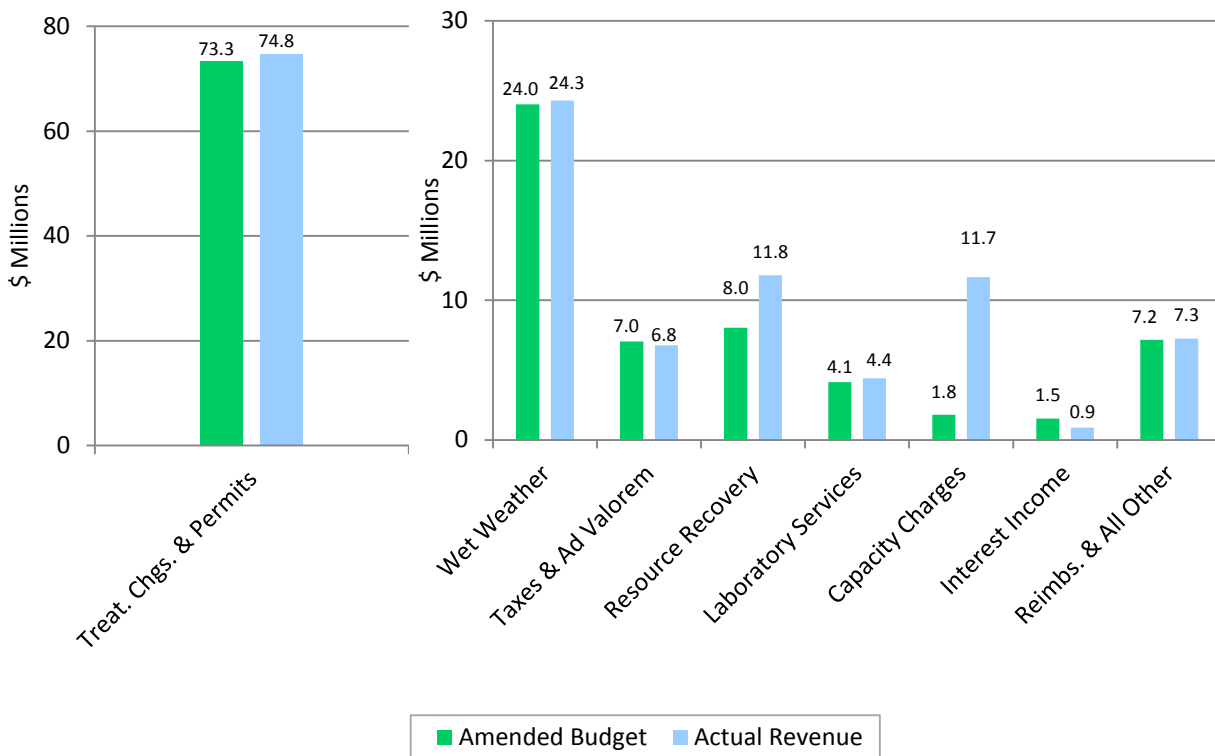




FY18 ANNUAL BUDGET PERFORMANCE

Wastewater System Revenues

The following charts show the various sources of Wastewater System revenue including a comparison to budget. Total revenues were \$141.8 million or 112% of budgeted revenues.



WASTEWATER REVENUES (\$ Millions)			
	Amended Budget	YTD Actuals	% of Budget
Treatment Charges & Permits	73.3	74.8	102%
Wet Weather	24.0	24.3	101%
Taxes & Ad Valorem Bond Levy	7.0	6.8	96%
Resource Recovery	8.0	11.8	147%
Laboratory Services	4.1	4.4	107%
Capacity Charges	1.8	11.7	647%
Interest Income	1.5	0.9	58%
Reimbursements & All Other	7.2	7.3	101%
Total Revenues	127.1	141.8	112%

Numbers in the table may be rounded.



FY18 ANNUAL BUDGET PERFORMANCE

Major revenue variances were:

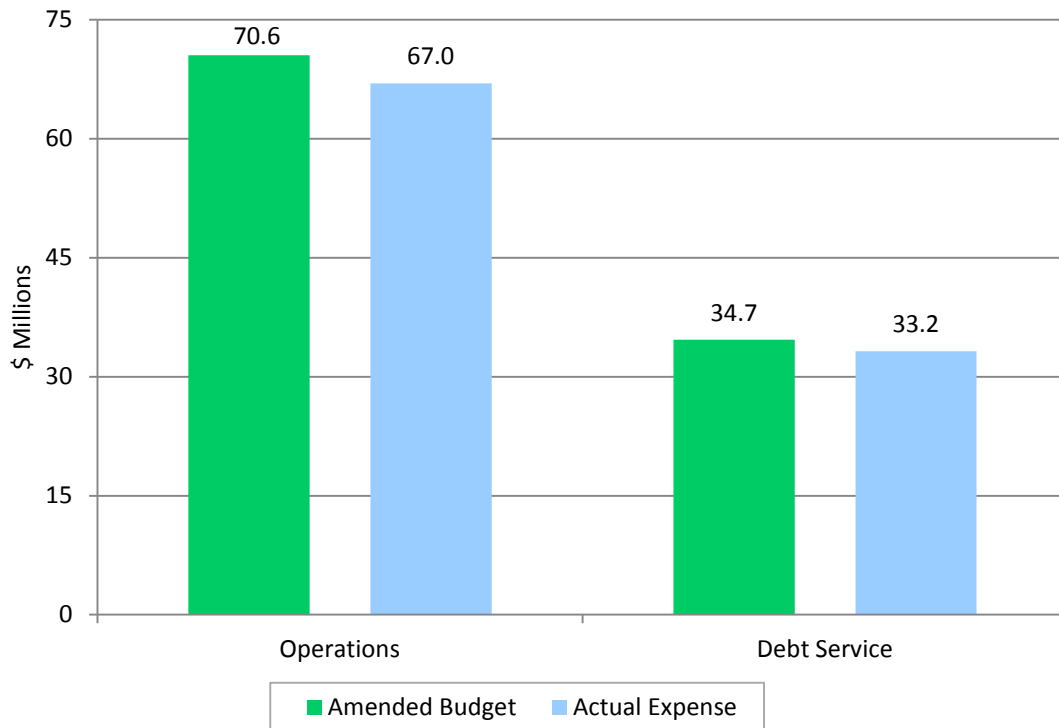
- **Resource Recovery** revenue totaled \$11.8 million or 147% of the \$8.0 million budget due to continued business above the budgeted level.
- **Capacity Charges** totaled \$11.7 million or 647% of the \$1.8 million budget due to higher than expected collection of capacity fees from unprecedented building activity. The increase in building activity in the SD-1 service area was proportionately higher than in the overall water system service area.
- **Laboratory Services** totaled \$4.4 million or 107% of the \$4.1 million budget due to additional revenue from outside agencies.
- **Interest Income** totaled \$0.9 million or 58% of the \$1.5 million budget due to lower than projected interest rates on short-term investments held in the portfolio.



FY18 ANNUAL BUDGET PERFORMANCE

Wastewater System Operating Expenses and Commitments

The following charts depict the operating budget spending by expenditure category for the Wastewater System. Operating expenses and commitments for the fiscal year totaled \$100.2 million or 95% of the total amended budget of \$105.2 million.



OPERATING EXPENDITURES BY CATEGORY (\$ Millions)			
	Amended Budget	YTD Actuals	% of Budget
Operations	70.6	67.0	95%
Debt Service	34.7	33.2	96%
Total	105.2	100.2	95%

Numbers in the table may be rounded.

Major expense variances were:

- **Operations** savings of approximately \$3.6 million were primarily attributable to lower than planned use of chemicals through optimization of solids thickening, as well as chemical dosing in the dechlorination processes; a higher than budgeted offset for the administration of capital which decreases operating expense by a like amount; and unspent contingency.
- **Debt Service** savings of approximately \$1.5 million were attributable to a favorable interest rate environment and a conservative approach to budgeting.

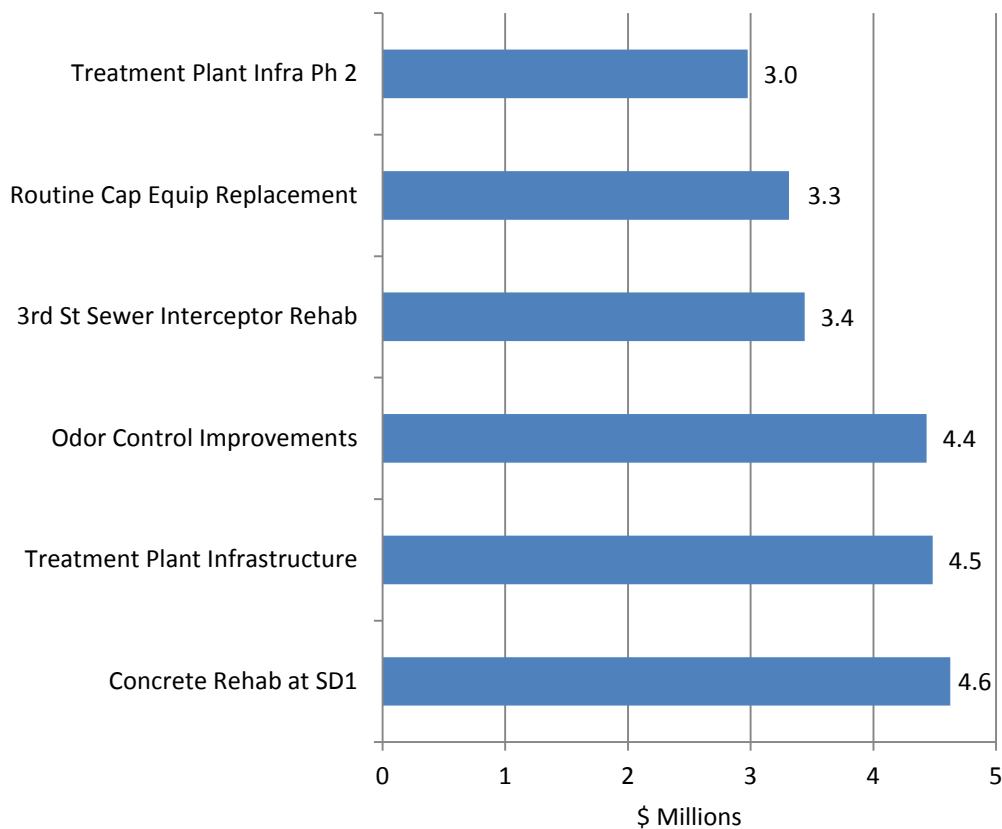


FY18 ANNUAL BUDGET PERFORMANCE

Wastewater System Capital Expenditures and Commitments

For the fiscal year, capital cash flow expenditures totaled \$35.1 million or 85% of the budgeted cash flow of \$41.4 million. Of this amount, direct costs associated with capital projects totaled \$31.5 million and the remaining \$3.6 million represents administration of capital expenses. Capital cash flow spending was less than budget primarily due to delays in the Digester Upgrade Project and 3rd St Sewer Interceptor Rehab Project, but was partially offset by greater than budgeted administration of capital.

The following chart illustrates the direct capital cash flow expenditures for the major Wastewater System projects.





FY18 ANNUAL BUDGET PERFORMANCE

GRANTS AND LOANS SUMMARY

GRANTS

The District received two grant awards totaling approximately \$16.0 million. The following table shows details on grant activities during the fiscal year.

Grant Action Details	Submittal Year	Amount (\$ Millions)	FY18 Action
Levee Improvements and Protection of Aqueducts and Reclamation Districts	FY16	16,000,000	Awarded
Wellness - Association of California Water Agencies Joint Powers Insurance Authority's (ACWA JPIA)	FY18	2,000	Awarded
Hazard Mitigation for Moraga Creek	FY18	3,000,000	Submitted
Mokelumne River Riparian Diversion Screen Project	FY18	160,000	Submitted
Sustainable Groundwater Planning	FY18	1,000,000	Pending
BARR Water Marketing Strategy	FY17	400,000	Pending
Hazard Mitigation for Briones Tower Repair	FY18	3,000,000	Submitted & Denied

The details of the grant awards are:

Levee Improvements and Protection of Aqueducts and Reclamation Districts: The Department of Water Resources (DWR) awarded funding of \$16.0 million for three projects to further improve levees adjacent to EBMUD's aqueducts. EBMUD and the Reclamation Districts negotiated an agreement enabling the Reclamation Districts to accept the DWR funding and implement the projects.

Wellness Association of California Water Agencies Joint Power Insurance Authority: The JPIA Wellness grant of \$2,000 paid for program expenses associated with the January employee wellbeing month.

LOANS

Two loans were approved for a total of approximately \$37.0 million. The following table shows details on loan activities during the fiscal year.

Loan Action Details	Date Applied	Amount (\$)	FY18 Action
South Reservoir Replacement - Drinking Water State Revolving Fund (DWSRF)	3/30/2016	18,946,632	Approved
Macarthur Davenport Pipeline Replacement - Drinking Water State Revolving Fund (DWSRF)	4/30/2016	18,041,600	Approved
South Interceptor/3 rd St. Rehab - State Revolving Fund - Clean Water State Revolving Fund (CWSRF)	5/22/2017	27,301,000	Pending
San Pablo Clearwell Replacement & Water Treatment Plant Rehabilitation Project	10/17/2017	27,836,000	Submitted & Withdrawn



FY18 ANNUAL BUDGET PERFORMANCE

ADMINISTRATION

During Fiscal Year 2018, the District monitored and administered approximately \$1.5 million in grants and \$67.1 million in loans previously awarded. An additional \$3.7 million in grant funded projects that benefit EBMUD was administered by other agencies.



FINANCIAL REVIEW OF FISCAL YEAR 2018

Financial Indicators



FY18 FINANCIAL INDICATORS

This section provides a trend analysis for Water and Wastewater Systems from FY09 to FY18.

Water System Overview

- **Financial Goals** exceeded targeted goals of Policy 4.02, Cash Reserves and Debt Management.
- **Financial Position** remained sound with an increase in assets and decrease in liabilities. Capital contributions increased due to local development.
- **Operating Indicators** remained strong with a stable customer base and solid collection controls, while rates remained below the median for comparable agencies.

Wastewater System Overview

- **Financial Goals** exceeded targeted goals of Policy 4.02, Cash Reserves and Debt Management.
- **Financial Position** remained sound with an increase in assets and decrease in liabilities. Capital contributions increased due local development.
- **Operating Indicators** remained strong with a stable customer base and solid collection controls, while rates remained above the median for comparable agencies.

Employees Retirement System

- **Retirement System** funding percentage is comparable to other similarly sized agencies.

Please refer to the specific within this report for more details.

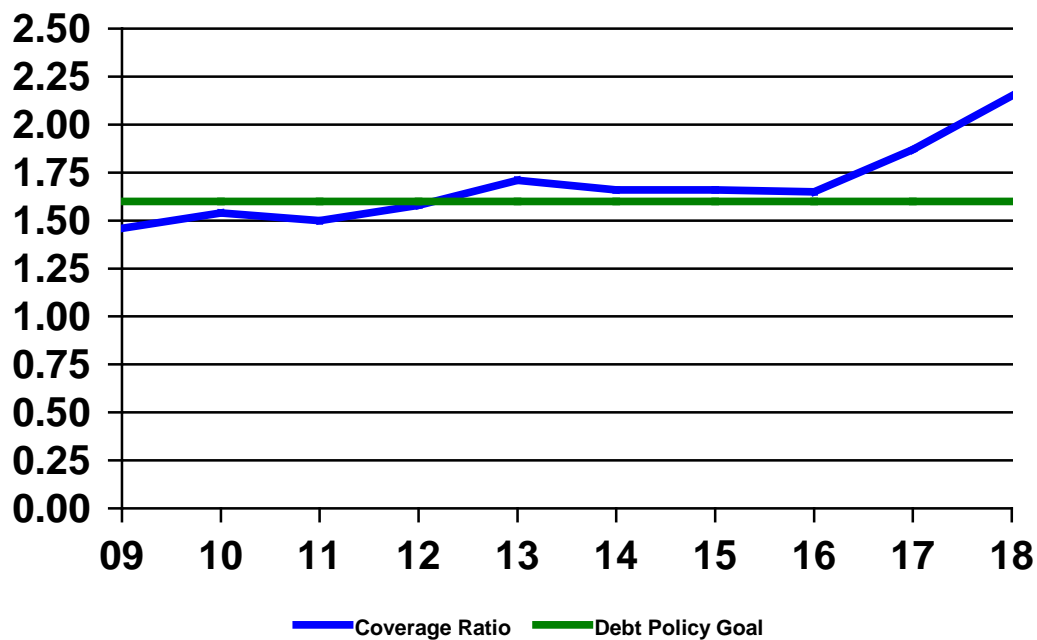


FY18 FINANCIAL GOALS (Policy 4.02)

Water – Revenue Debt Service Coverage Ratio

This ratio shows net revenue divided by revenue bond debt service cost. Coverage ratios are used to determine the ability to meet revenue bond interest and principal payments. The higher the ratio, the stronger the security for the revenue bonds.

The FY18 water system debt service coverage ratio of 2.15 met the KPI target, and has consistently exceeded the policy goal since FY13.



Coverage Ratio										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Actual	1.46	1.54	1.5	1.58	1.71	1.66	1.66	1.65	1.87	2.15
Target	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Performance	--	--	--	--	++	++	++	++	++	++

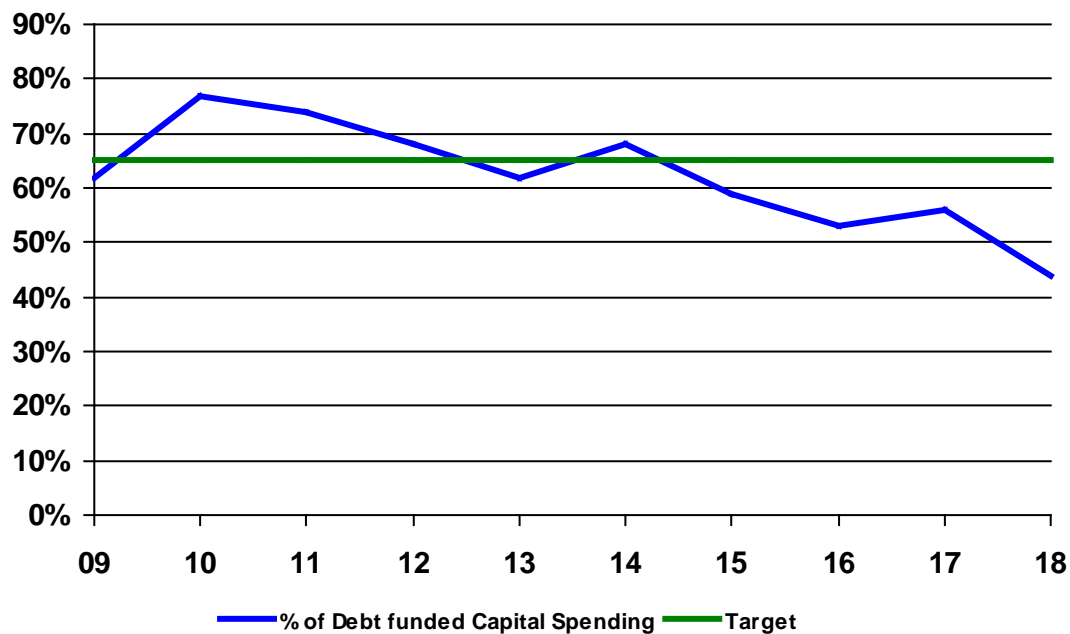


FY18 FINANCIAL GOALS (Policy 4.02)

Water – Percentage of Debt Funded Capital Spending

This percentage shows the amount of debt used to fund capital programs divided by total capital spending for each five-year planning period. The District's goal is to limit debt-funded capital spending to no more than 65%.

In FY18, the percentage of debt funded capital spending decreased from 56% to 44%. FY18 represents the fourth consecutive year the District has met the policy goal.



Percentage of Debt Funded Capital Spending										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Actual	62%	77%	74%	68%	62%	68%	59%	53%	56%	44%
Target	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Performance	++	--	--	--	++	--	++	++	++	++

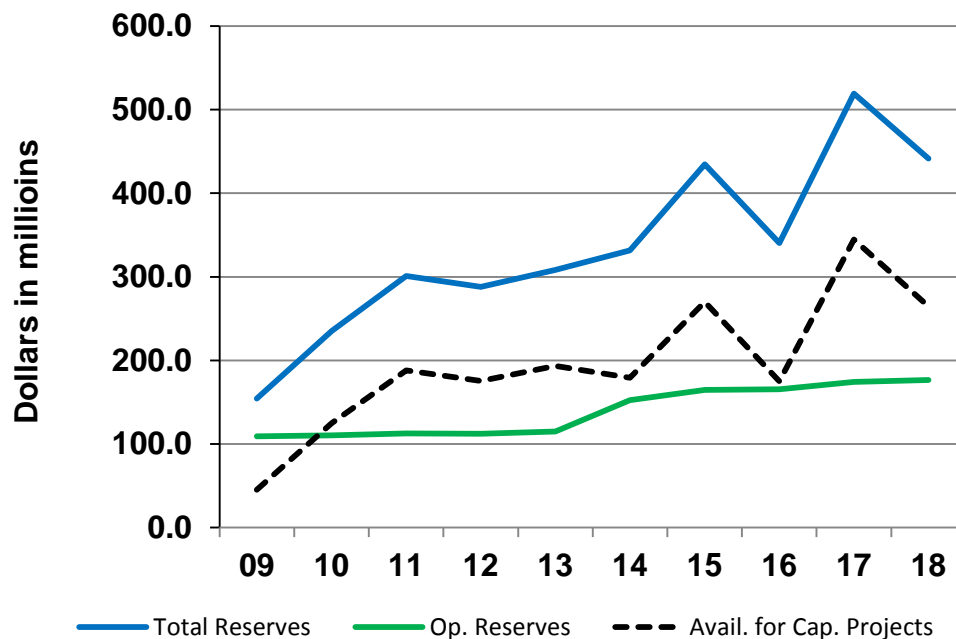


FY18 FINANCIAL GOALS (Policy 4.02)

Water – Unrestricted Reserve Balances

The Unrestricted Reserve Balances indicate the District's ability to meet unanticipated revenue declines or expenditure increases. Unrestricted reserves are committed by the Board of Directors. This is distinct from restricted reserves which are legally constrained by law or by third party.

The District goal is to meet or exceed the target operating reserve. The current unrestricted reserve balance of \$441.3 million exceeds the operating reserve balances of \$176.5 million established by the District's Financial Reserve Policy. Balances in excess of the operating reserves will be used to fund the Water System Capital Projects.



Reserve Balances (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Total Reserves	154.4	235.2	300.8	287.8	308.3	331.6	434.7	340.4	519.1	441.3
Operating Reserves	109.1	110.3	112.7	112.3	114.9	152.4	164.9	165.3	174.3	176.5
Avail. for Cap. Projects	45.3	124.9	188.1	175.5	193.4	179.2	269.8	175.1	344.8	264.8
Performance	++	++	++	++	++	++	++	++	++	++

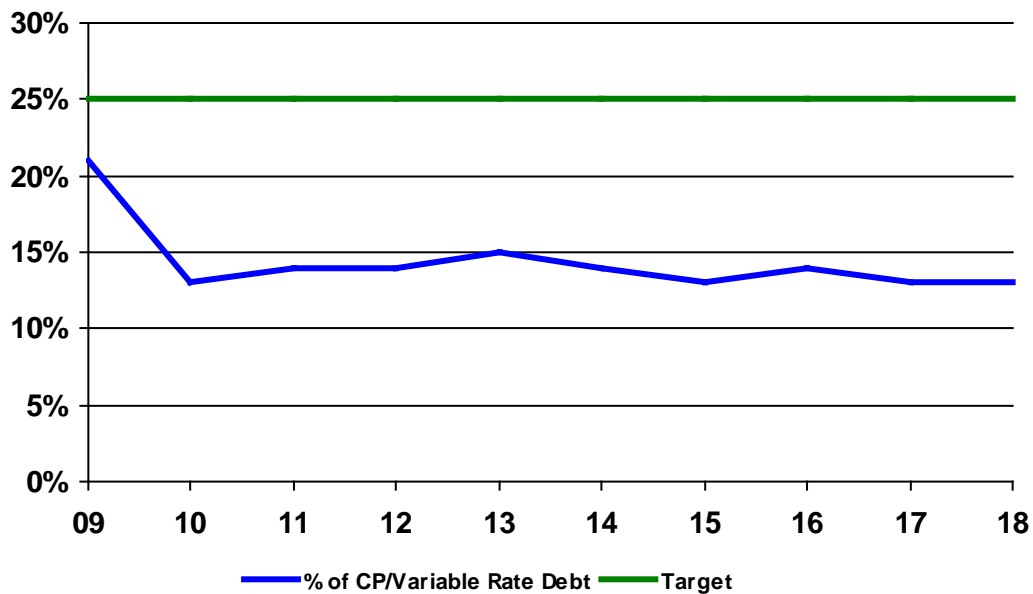


FY18 FINANCIAL GOALS (Policy 4.02)

Water – Percentage of Extended Commercial Paper and Un-hedged Variable Rate Debt

This percentage represents the total amount of commercial paper and un-hedged variable rate debt divided by the total outstanding long-term debt for each fiscal year period. The District's goal is to limit the commercial paper and un-hedged variable rate debt to no more than 25% of the total outstanding long-term debt.

In FY18, the water system met the KPI target with 13%.



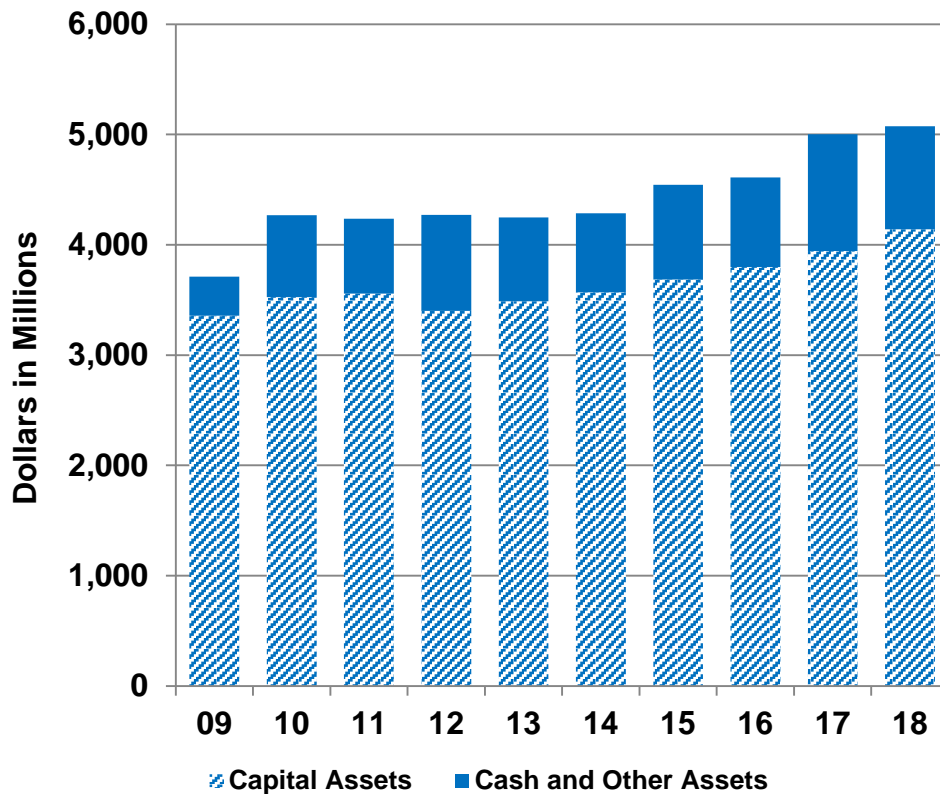
Percentage of Commercial Paper and Variable Rate Debt										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
% of CP+Var Debt	21%	13%	14%	14%	15%	14%	13%	14%	13%	13%
Target	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Performance	++	++	++	++	++	++	++	++	++	++



FY18 FINANCIAL POSITION

Water – Total Assets

Total Assets have increased in the past ten years from \$3.7 billion to \$5.1 billion. The amount of Capital Assets (e.g. buildings, pipelines, reservoirs, etc.) increased in FY18 to \$4.1 billion, or 82% of Total Assets.



Total Assets (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Capital Assets	3,357	3,524	3,556	3,400	3,485	3,568	3,684	3,796	3,941	4,140
Cash and Other Assets	353	744	679	869	761	715	859	814	1,060	932
Total Assets	3,710	4,268	4,235	4,269	4,246	4,283	4,543	4,610	5,001	5,072
% of Capital to Total Assets	91%	83%	84%	80%	82%	83%	81%	82%	79%	82%

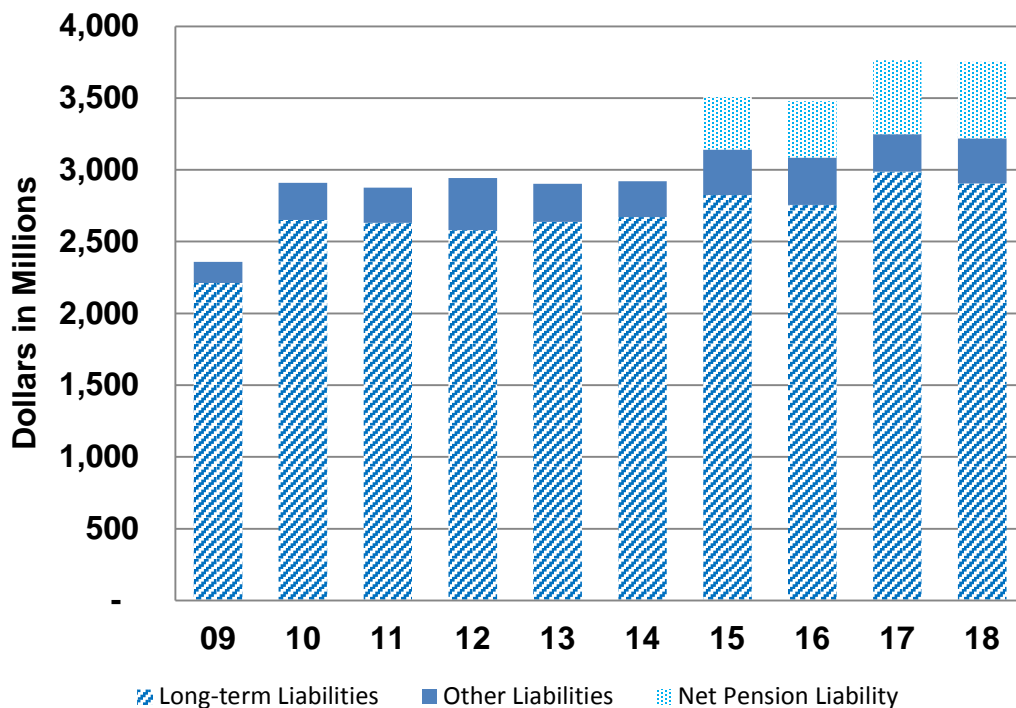


FY18 FINANCIAL POSITION

Water – Total Liabilities

Total Liabilities over the last ten years have increased from \$2.4 billion in FY09 to \$3.8 billion in FY18. The increases are in line with increased capital spending to improve the Water System's infrastructure, meet more stringent regulations, secure future water supply, and upgrade the water distribution system.

The percentage of debt to total liabilities decreasing trend provides more financial flexibility for the future.



Total Liabilities (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Net Pension and Net OPEB Liabilities *							365	393	515	532
Other Liabilities	147	258	246	364	266	248	318	329	261	314
Long-term Liabilities	2,211	2,650	2,630	2,578	2,637	2,671	2,823	2,756	2,986	2,905
Total Liabilities	2,358	2,908	2,876	2,942	2,903	2,919	3,506	3,478	3,762	3,751
% of Debt to Total Liabilities	94%	91%	91%	88%	91%	92%	81%	80%	79%	77%

*Net OPEB liability was added in FY18

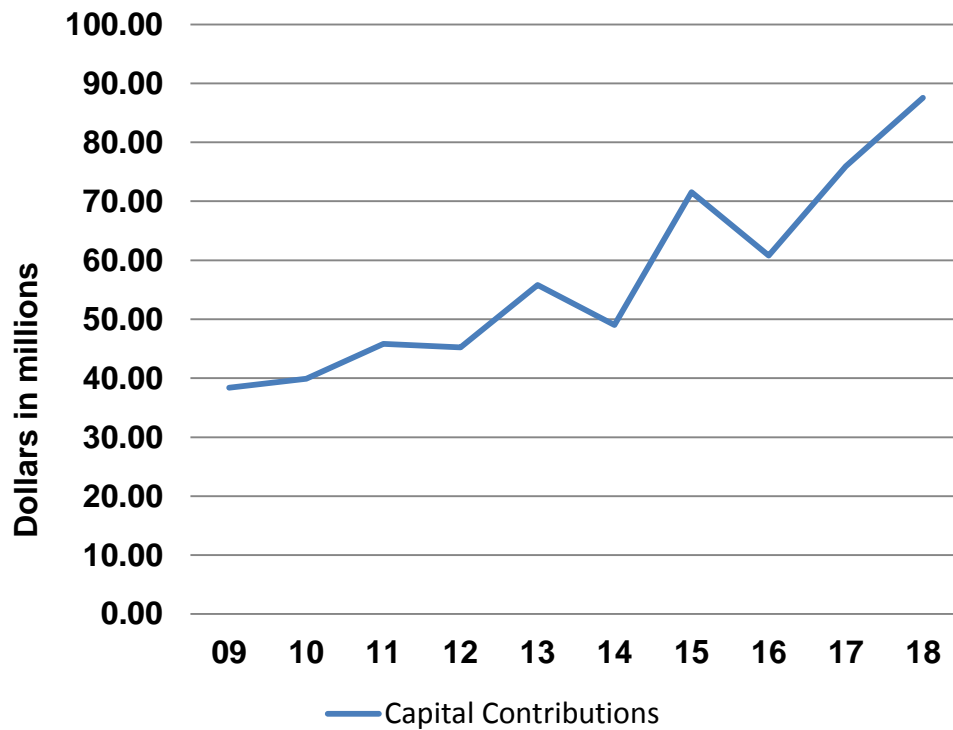


FY18 FINANCIAL POSITION

Water – Capital Contributions

Capital Contributions primarily consists of System Capacity Charges (SCC) and contributions when the District's facilities need to be relocated during construction projects. The District also receives state and federal grants to fund capital projects.

In FY18, Capital Contributions increased from \$75.91 million in FY17 to \$87.56 million primarily due to increased development in the Oakland area.



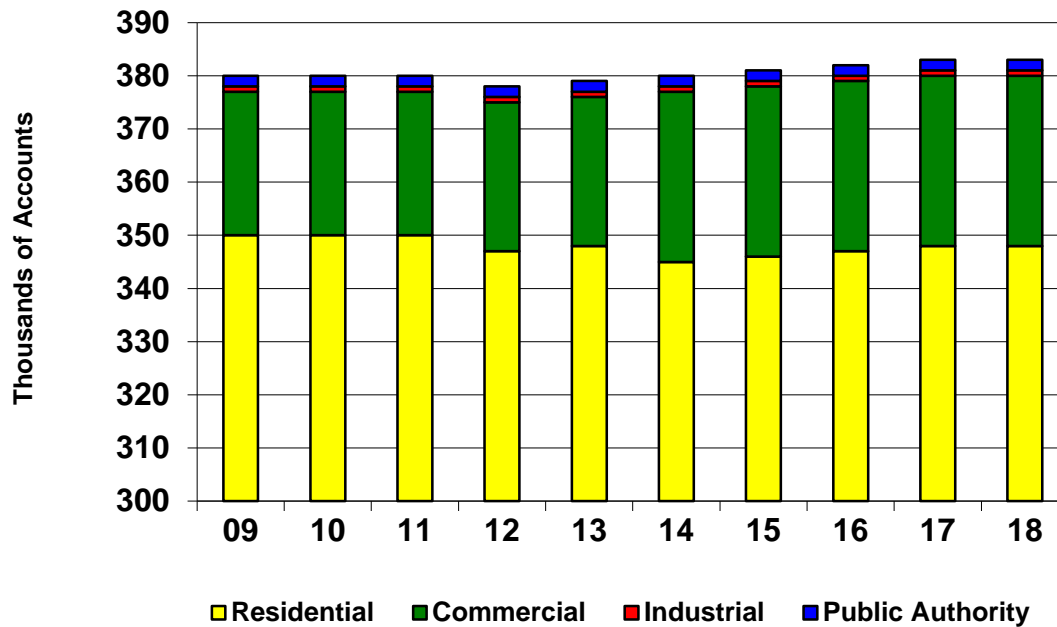
Capital Contributions (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
System Capacity Charges	10.84	12.55	17.63	16.08	22.67	20.37	29.73	39.32	51.46	69.27
Earned Contributions on Construction	10.84	6	6.48	5.87	4.54	5.24	17.08	17.05	14.36	15.52
Seismic Improvement Surcharge	15.48	16.66	18.1	19.17	20.59	22.68	22.16	0.03	0.01	-
Grants and Other Reimbursements	1.2	4.71	3.61	4.09	7.99	0.75	2.56	4.40	10.08	2.77
Capital Contributions	38.36	39.92	45.82	45.21	55.79	49.04	71.53	60.80	75.91	87.56



FY18 OPERATING INDICATORS

Water – Number of Accounts

The District provides water to approximately 383,284 accounts and a population of 1.4 million. The number of accounts has slightly increased over the past ten years. Accounts are classified as Residential, Commercial, Industrial, and Public Authority (Institutional/Public Agencies).



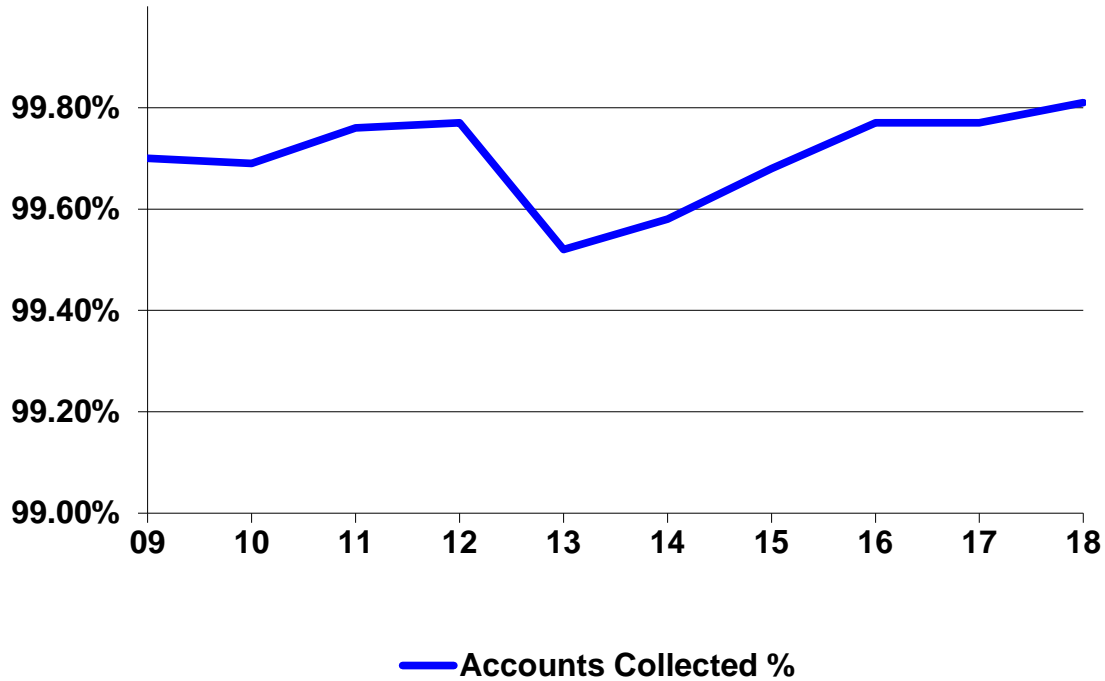
Number of Accounts (in thousands)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Residential	350	350	350	347	348	345	346	347	348	348
Commercial	27	27	27	28	28	32	32	32	32	32
Industrial	1	1	1	1	1	1	1	1	1	1
Public Authority	2	2	2	2	2	2	2	2	2	2
Total accounts	380	380	380	378	379	380	381	382	383	383



FY18 OPERATING INDICATORS

Water – Percentage of Billed Revenue Collected

The District's strong billing and collection process is reflected in the continuous high percentage of collections for all years. The uncollectible amount continues to be less than 0.5% of total revenue.



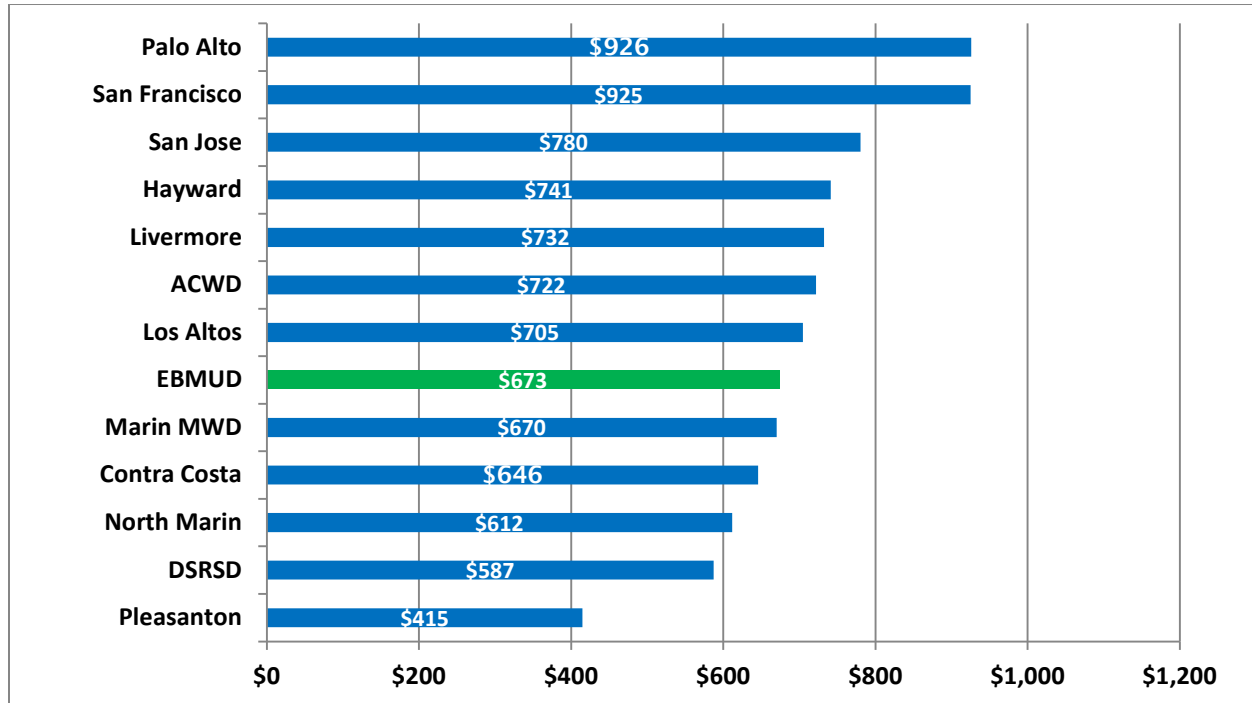
Percentage of Billed Revenue Collected										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Net Loss %	0.30%	0.31%	0.24%	0.23%	0.48%	0.42%	0.32%	0.23%	0.23%	0.19%
Accounts Collected %	99.70%	99.69%	99.76%	99.77%	99.52%	99.58%	99.68%	99.77%	99.77%	99.81%



FY18 OPERATING INDICATORS

Water – Comparative FY18 Single Family Residential Bills for Bay Area Agencies

The comparative annual charges are for a typical single family residential (SFR) account using 8 Ccf per month. The water system met the target to be “at or below the median” of other Bay Area agencies.



Comparison of SFR Bills (8 Ccf per month)	
Agency	Agency Bills
Pleasanton	415
Dublin-San Ramon	587
North Marin	612
Contra Costa	646
Marin MWD	670
EBMUD	673
Los Altos	705
ACWD	722
Livermore	732
Hayward	741
San Jose	780
San Francisco	925
Palo Alto	926

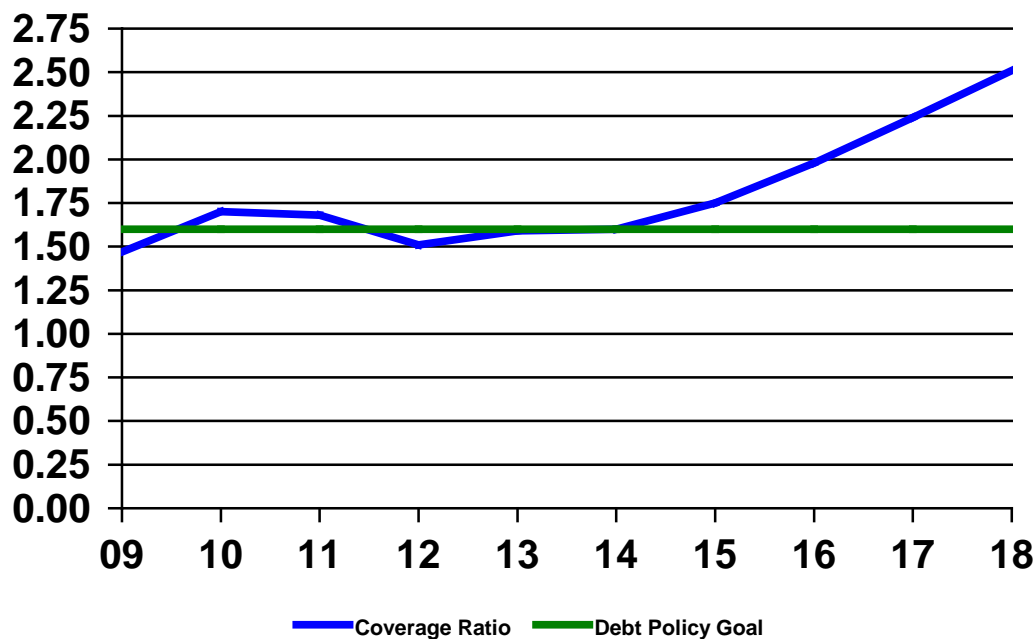


FY18 FINANCIAL GOALS (Policy 4.02)

Wastewater – Revenue Debt Service Coverage Ratio

This ratio shows the net revenue divided by the bond debt service cost. Coverage ratios are used to determine the ability to meet revenue bond interest and principal payments. The higher the ratio, the stronger the security for the revenue bonds.

The FY18 wastewater system debt service coverage ratio of 2.51 met the KPI target and has consistently met or exceeded the policy goal since FY14.



Coverage Ratio										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Actual	1.47	1.7	1.68	1.51	1.59	1.6	1.75	1.98	2.24	2.51
Target	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Performance	--	++	++	--	--	++	++	++	++	++

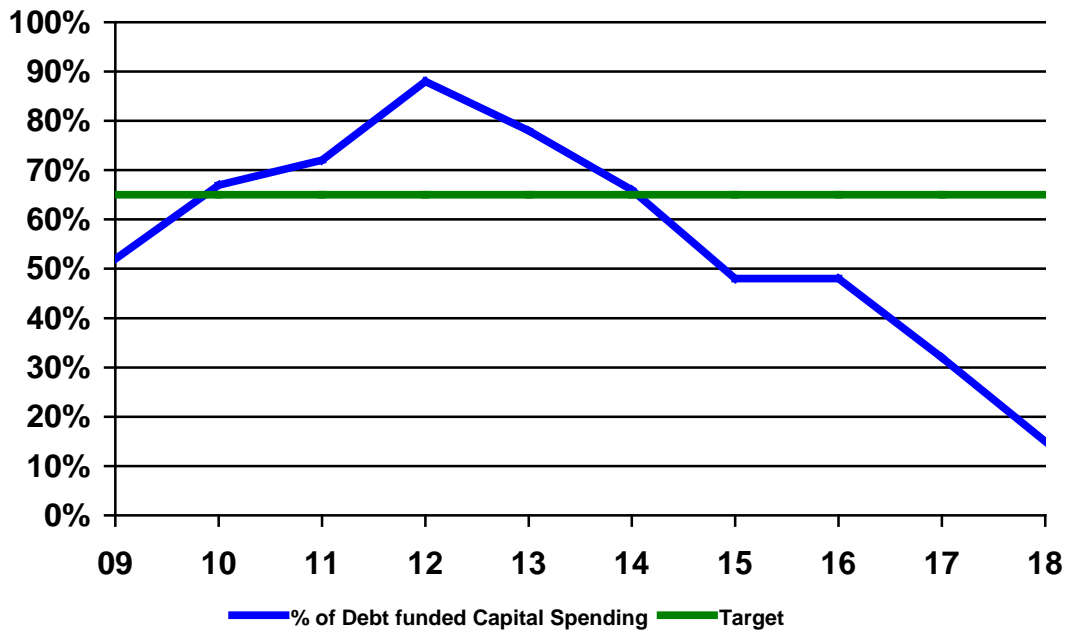


FY18 FINANCIAL GOALS (Policy 4.02)

Wastewater – Percentage of Debt Funded Capital Spending

This percentage shows the amount of debt used to fund capital programs divided by total capital spending for each five-year planning period. The District's goal is to limit debt-funded capital spending to no more than 65%.

In FY18, the percentage of debt funded capital spending decreased to 15%. FY18 represents the fourth consecutive year the District has met the policy goal.



Percentage of Debt Funded Capital Spending										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Actual	52%	67%	72%	88%	78%	66%	48%	48%	32%	15%
Target	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Performance	++	--	--	--	--	--	++	++	++	++

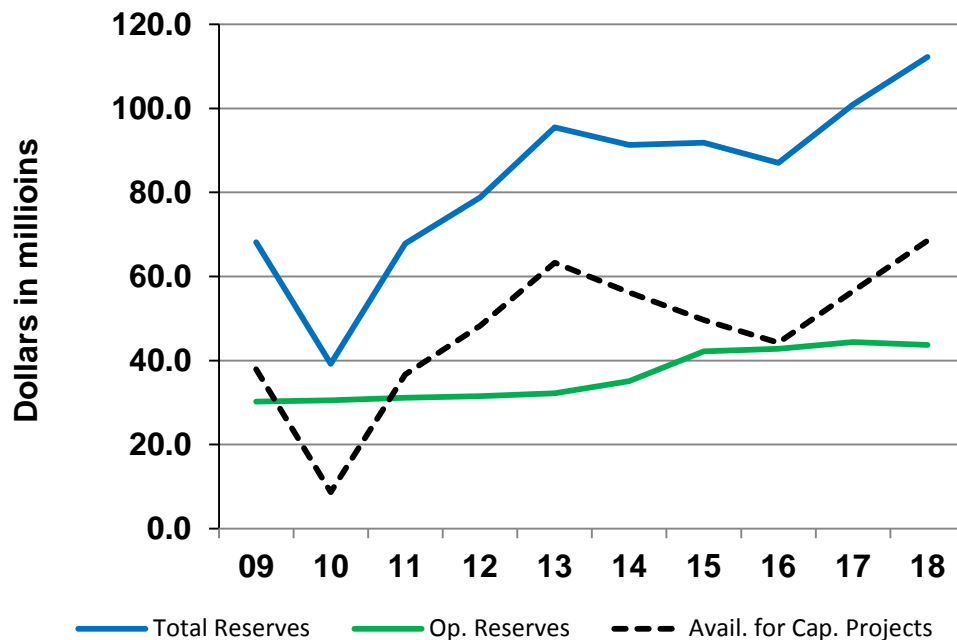


FY18 FINANCIAL GOALS (Policy 4.02)

Wastewater – Unrestricted Reserve Balances

The Unrestricted Reserve Balances indicate the District's ability to meet unanticipated revenue declines or expenditure increases. Unrestricted reserves are committed by the Board of Directors. This is distinct from restricted reserves which are legally constrained by law or by third party.

The District goal is to meet or exceed the target operating reserve. The current unrestricted reserve balance of \$112.2 million exceeds the operating reserve balances of \$43.7 million established by the District's Financial Reserve Policy. Balances in excess of the operating reserves will be used to fund the Wastewater System Capital Projects.



Reserve Balances (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Total Reserves	68.1	39.2	67.8	78.8	95.5	91.3	91.8	87.0	100.9	112.2
Operating Reserves	30.2	30.5	31.1	31.5	32.2	35.1	42.2	42.8	44.4	43.7
Avail. for Cap. Projects	37.9	8.7	36.7	48.3	63.3	56.2	49.6	44.2	56.5	68.5
Performance	++	++	++	++	++	++	++	++	++	++

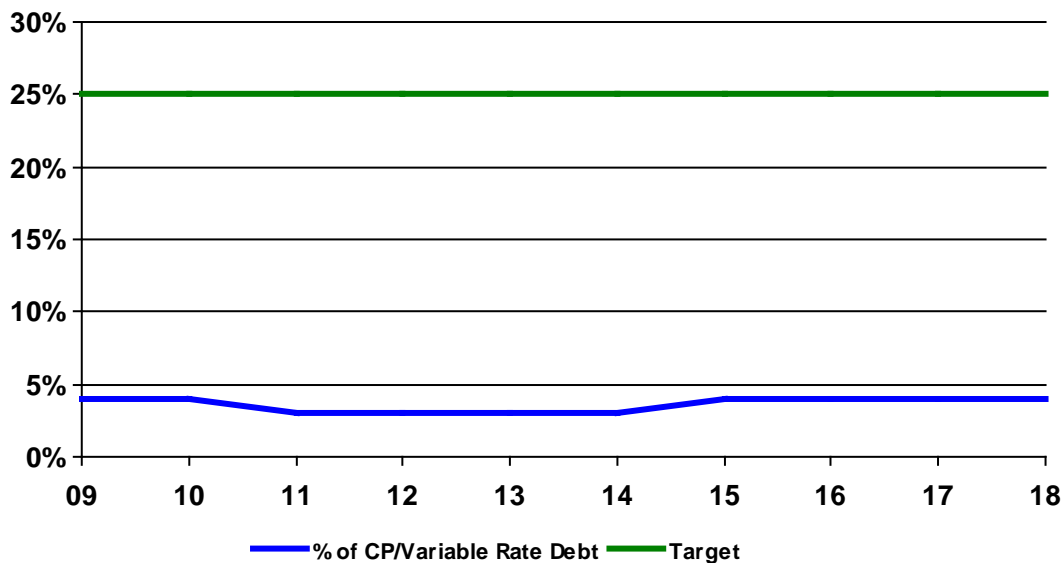


FY18 FINANCIAL GOALS (Policy 4.02)

Wastewater – Percentage of Commercial Paper and Variable Rate Debt

This percentage represents the total amount of commercial paper and un-hedged variable rate debt divided by the total outstanding long-term debt for each fiscal year period. The District's goal is to limit the commercial paper and un-hedged variable rate debt to no more than 25% of the total outstanding long-term debt.

In FY18, the wastewater system met the KPI target with a percentage of 4%. Currently the wastewater system only has extendable commercial paper.



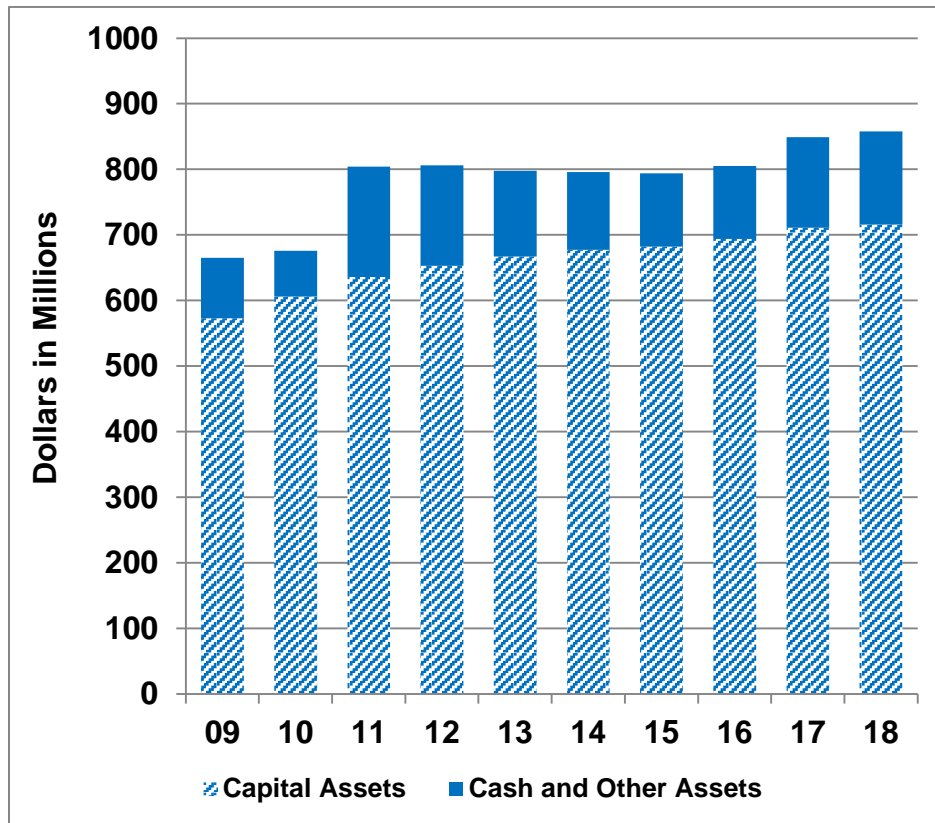
Percentage of Commercial Paper and Variable Rate Debt (in Millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
% of CP+Var Debt	4%	4%	3%	3%	3%	3%	4%	4%	4%	4%
Target	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Performance	++	++	++	++	++	++	++	++	++	++



FY18 FINANCIAL POSITION

Wastewater – Total Assets

Total Assets increased in the last ten years from \$665 million in FY09 to \$858 million in FY18. The amount of Capital Assets increased in FY18 to \$716 million, or 83% of Total Assets.



Total Assets (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Capital Assets	573	606	636	653	667	677	682	694	711	716
Cash and Other Assets	92	70	168	153	131	119	112	111	138	142
Total Assets	665	676	804	806	798	796	794	805	849	858
% of Capital to Total Assets	86%	90%	79%	81%	84%	85%	86%	86%	84%	83%

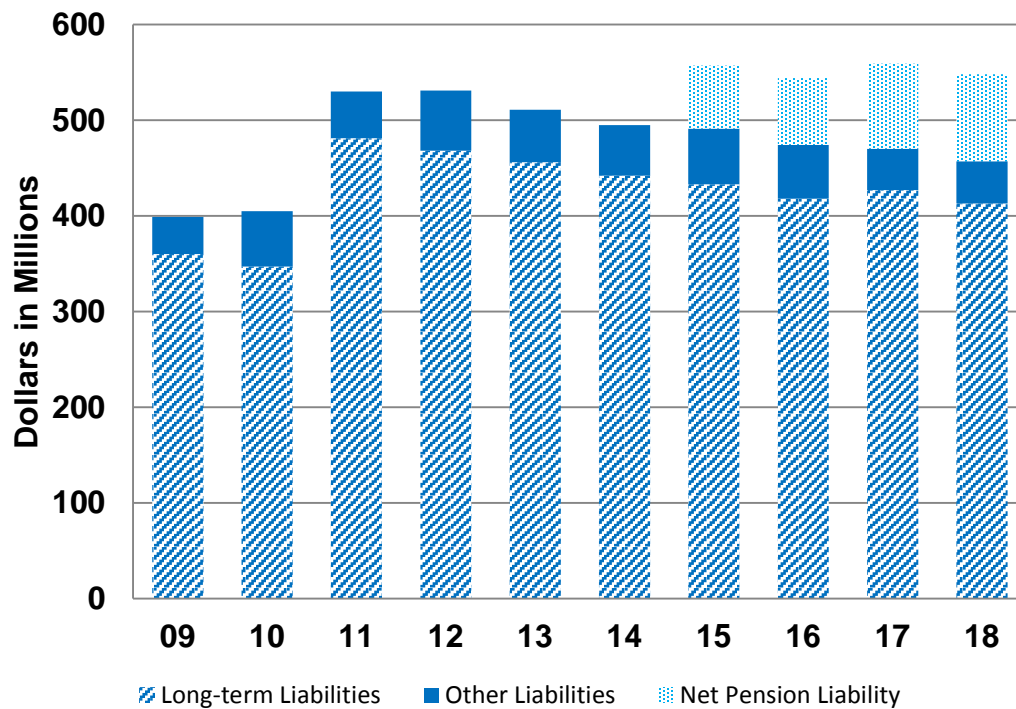


FY18 FINANCIAL POSITION

Wastewater – Total Liabilities

Total Liabilities over the last ten years have increased from \$399 million in FY09 to \$548 million in FY18.

The percentage of debt to total liabilities decreasing trend provides more financial flexibility for the future.



Total Liabilities (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Net Pension and Net OPEB Liabilities *							66	70	89	91
Other Liabilities	39	58	49	63	55	53	58	56	43	44
Long-term Liabilities	360	347	481	468	456	442	433	418	427	413
Total Liabilities	399	405	530	531	511	495	557	544	559	548
% of Debt to Total Liabilities	90%	86%	91%	88%	89%	89%	78%	77%	76%	75%

*Net OPEB liability was added in FY18

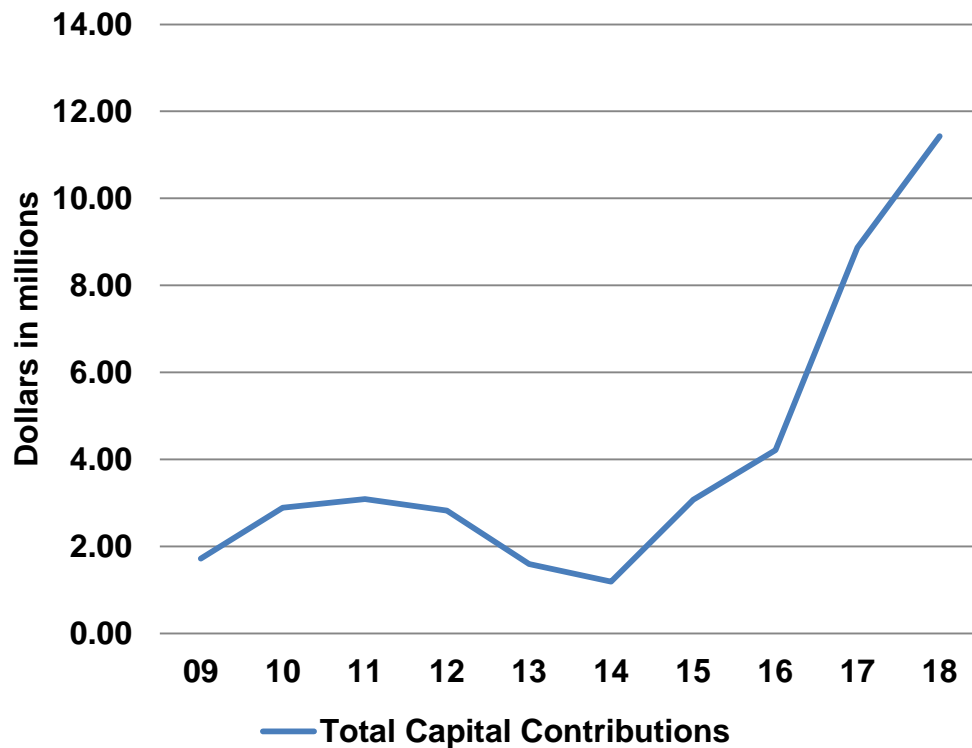


FY18 FINANCIAL POSITION

Wastewater – Capital Contributions

Capital Contributions primarily consists of Wastewater Capacity Fees. Additionally, the District receives contributions when the facilities need to be relocated during construction projects. The District also receives state and federal grants to fund capital projects.

In FY18, wastewater system capital contributions increased to \$11.43 million primarily due to an increase in infill projects, particularly in the Oakland area.



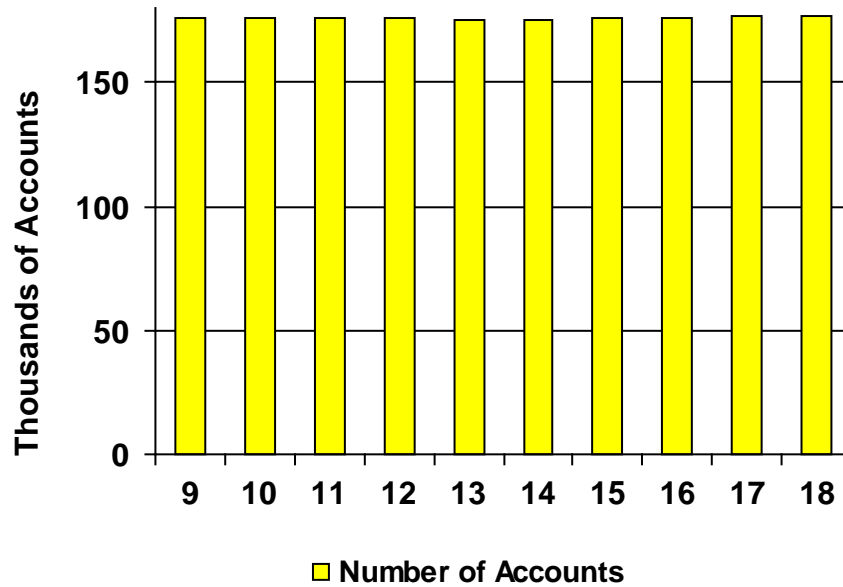
Capital Contributions (in millions)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Wastewater Capacity Fees	1.56	0.68	2.42	2.82	1.26	0.81	2.79	3.1	7.97	11.42
Earned Contributions on Construction	-	1.95	0.67	-	-	-	-	0.75	0.71	0.01
Grants and Other Reimbursements	0.16	0.26	-	-	0.33	0.39	0.28	0.32	0.19	-
Total Capital Contributions	1.72	2.89	3.09	2.82	1.59	1.19	3.07	4.21	8.87	11.43



FY18 OPERATING INDICATORS

Wastewater – Number of Accounts

The District provides wastewater treatment and sewage disposal service to approximately 176,947 accounts and a population of 680,000. The number of accounts has remained stable over the past 10 years.



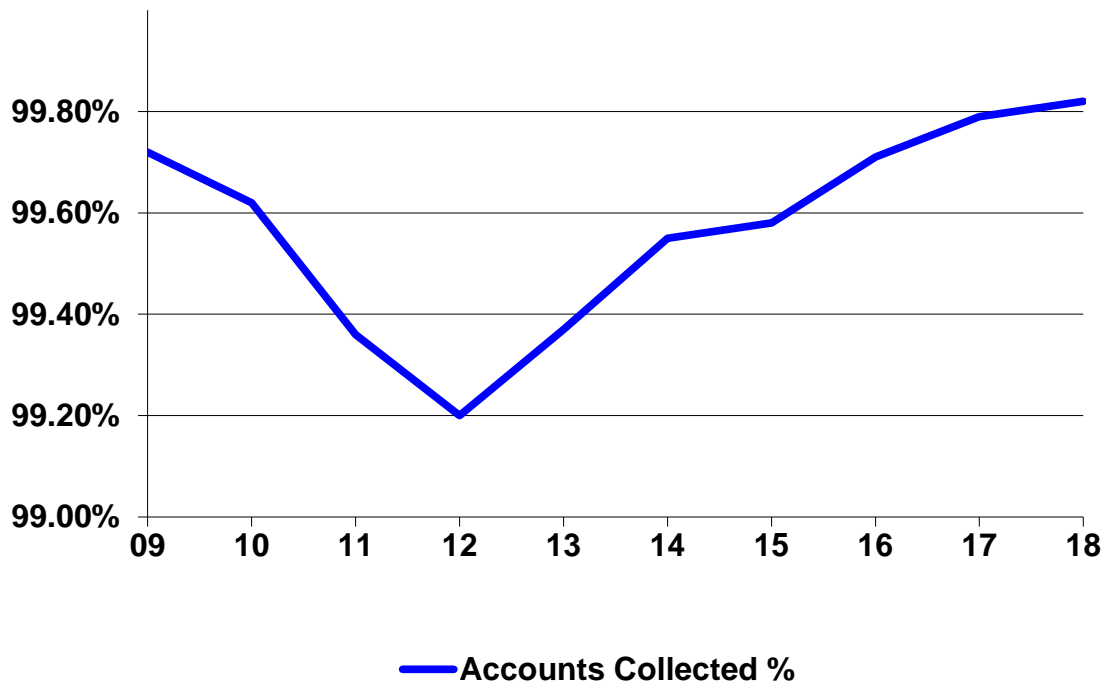
Number of Accounts (in thousands)										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Wastewater	176	176	176	176	175	175	176	176	177	177



FY18 OPERATING INDICATORS

Wastewater – Percentage of Billed Revenue Collected

The District's strong billing and collection process is reflected in the continuous high percentage of collections for all years. The uncollectible amount continues to be less than 0.5% of total revenue.



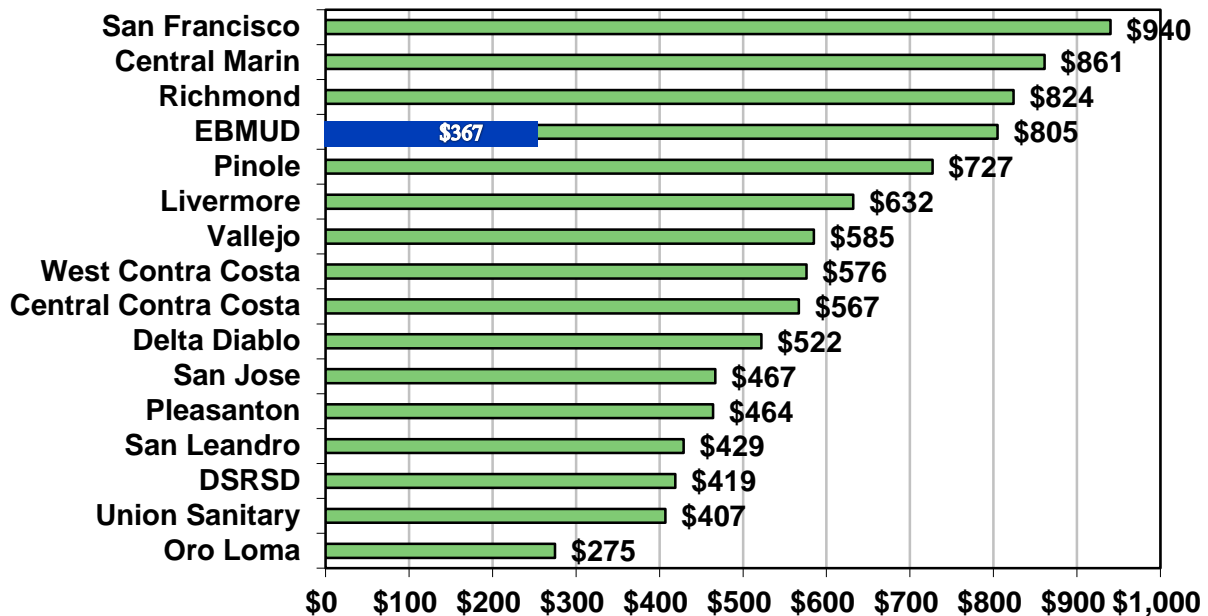
Percentage of Billed Revenue Collected										
Fiscal Year	09	10	11	12	13	14	15	16	17	18
Net Loss %	0.28%	0.38%	0.64%	0.80%	0.63%	0.45%	0.42%	0.29%	0.21%	0.18%
Accounts Collected %	99.72%	99.62%	99.36%	99.20%	99.37%	99.55%	99.58%	99.71%	99.79%	99.82%



FY18 OPERATING INDICATORS

Wastewater – Comparative FY18 Single Family Residential Bills for Bay Area Agencies

The comparative annual charges are for a typical single family residential (SFR) based on flow of 6 Ccf/mo. The EBMUD share is \$367 and the average charge for the collection system assessed by other agencies is \$438; the resulting total does not meet the target to be “at or below the median” of other Bay Area agencies.



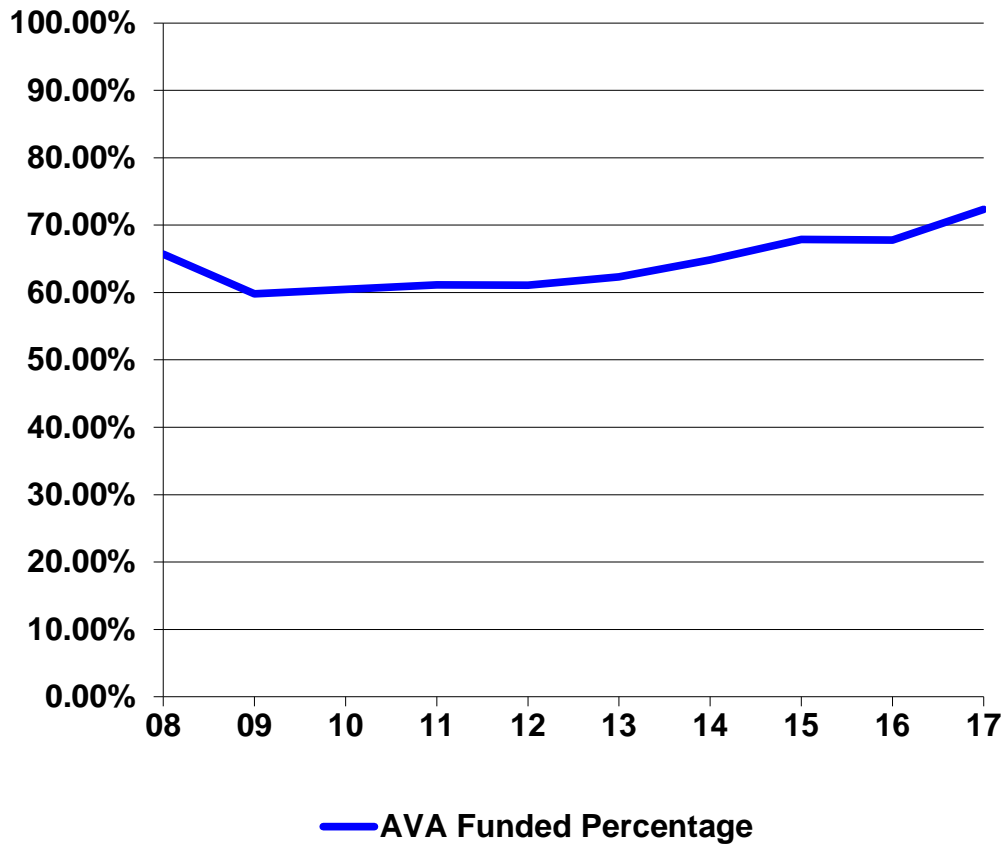
Comparison of SFR Bills (6 Ccf per month)	
Agency	Agency Bills
Oro Loma	275
Union Sanitary	407
DSRSD	419
San Leandro	429
Pleasanton	464
San Jose	467
Delta Diablo	522
Central Contra Costa	567
West Contra Costa	576
Vallejo	585
Livermore	632
Pinole	727
EBMUD	805
Richmond	824
Central Marin	861
San Francisco	940



FY17 RETIREMENT SYSTEM

Funded Pension and Health Benefit Obligation Percentage

The funded percentage of the pension and health benefit obligation reflects the difference between the actuarial accrued liability and the actuarial valuation of assets (AVA) held by the retirement system. Figures shown are through the year ended June 30, 2017, the date of the last completed actuarial valuation report. As of that date, the funded percentage of combined pension and health benefits has increased from 67.78% to 72.32%.



Funded Pension Benefit and Health Obligation Percentage										
Fiscal Year	08	09	10	11	12	13	14	15	16	17
HIB	5.11%	5.65%	7.43%	8.90%	10.30%	11.96%	13.98%	16.10%	18.30%	26.73%
Pension	72.36%	65.13%	65.60%	66.02%	65.62%	66.55%	68.90%	71.89%	71.44%	74.91%
Total Funded	65.69%	59.80%	60.46%	61.13%	61.11%	62.33%	64.83%	67.86%	67.78%	72.32%

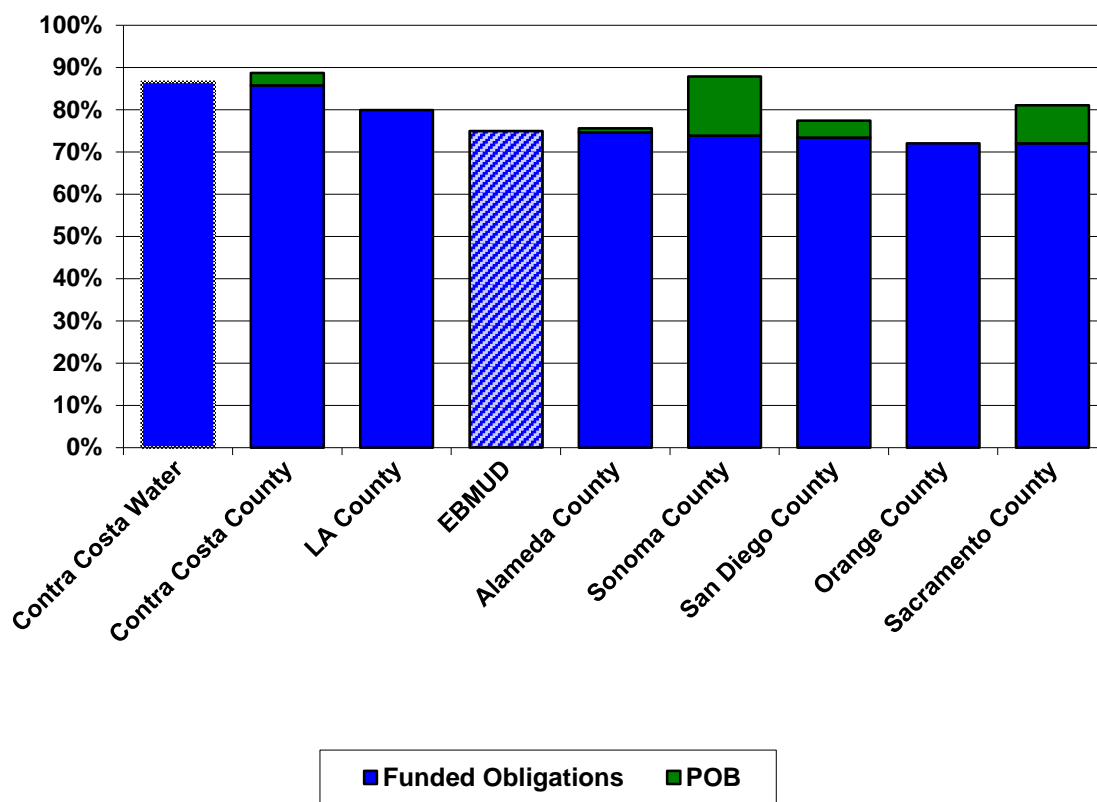


FY17 RETIREMENT SYSTEM

Comparative FY17 Funded Pension Obligation for Selected Agencies

The comparative funded percentage of pension obligation reflects the most current actuarial valuation as of FY17. Most all of the listed county government agencies issued pension obligation bonds (POB) to increase their funding levels. The chart allows the reader to see the relative funding level of the agencies without those bonds.

The investment rate of return of agencies shown is 7.25% except Orange County, Sacramento County, Contra Costa County and CCWD whose investment rate of return is 7%.



Agency	% of Funded w/o POB
Contra Costa Water	87%
Contra Costa County	86%
LA County	80%
EBMUD	75%
Alameda County	75%
Sonoma County	74%
San Diego County	73%
Orange County	72%
Sacramento County	72%

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

FROM: Alexander R. Coate, General Manager *ARC*

SUBJECT: Fiscal Year 2018 Key Performance Indicators Report

INTRODUCTION

The Fiscal Year (FY) 2018 Key Performance Indicators (KPIs) and targets were adopted by the Board as part of the July 2016 Strategic Plan, and measure progress in meeting the six Strategic Plan goals. Performance against the KPI targets is measured annually.

Attached is the FY18 Key Performance Indicators Report which will be discussed at the Finance/Administration Committee meeting on October 23, 2018.

STRATEGIC PLAN

The District's first Strategic Plan was adopted in May 2004. The Strategic Plan outlines the goals, strategies and objectives the District will pursue to achieve its mission to provide high quality service and preserve precious resources for future generations, and a set of criteria to measure progress. Significant progress has been made in executing many elements of the plan over the years. The 2016 Strategic Plan includes updated strategies, objectives and KPIs that are the basis for the FY18 KPI Report.

KEY PERFORMANCE INDICATORS

For FY18, the District either met or was on track to meet the target for 89 percent of its KPIs where targets were set. This is similar to the 86 percent in FY17 and the 87 percent in FY16. In FY18, a total of six targets were not met or on track. These unmet targets were for: pipeline breaks; valves exercised; wastewater rates; capital spending for both water and wastewater (two KPIs); and unplanned water service interruptions (4 to 12 hours). Details on these targets are provided in this report and will be discussed in the committee meeting.

ARC:SDS:DM

Attachment

Strategic Plan



Key Performance Indicators for Fiscal Year 2018





Table of Contents

Introduction.....2

Strategic Plan Overview2

Key Performance Indicator Summary..... 3

Long-Term Water Supply.....6

Water Quality and Environmental Protection11

Long-Term Infrastructure Investment14

Long-Term Financial Stability17

Customer and Community Services.....20

Workforce Planning and Development.....24

INTRODUCTION

These Key Performance Indicators (KPIs) reflect the various strategies contained within the July 2016 Strategic Plan goals, and include Fiscal Year (FY) 2018 performance targets for each KPI. Performance against the targets is measured annually and enables staff to evaluate progress in meeting the Strategic Plan goals. Typically, the Strategic Plan is updated every two years and some KPIs may be changed as part of the update.

STRATEGIC PLAN OVERVIEW

The Strategic Plan incorporates the District's mission and principles, and identifies its goals, strategies, objectives and key performance indicators. The Plan influences and guides staff in the management and allocation of resources and assets.

Our **mission** is to manage the natural resources with which the District is entrusted; to provide reliable, high quality water and wastewater services at fair and reasonable rates for the people of the East Bay; and to preserve and protect the environment for future generations.



Our **principles** provide the foundation of the Strategic Plan and form the basis of our business approach which strives to minimize waste, conserve energy and natural resources, promote long-term economic viability, protect the environment, operate within high standards to serve our customers and the community, and support safety and well-being for employees, communities, and customers.

Our principles are:

- 💧 Exercise responsible financial management
- 💧 Ensure fair and reasonable rates and charges
- 💧 Provide responsive quality customer service
- 💧 Promote ethical behavior in the conduct of District business
- 💧 Ensure fair and open processes involving the public
- 💧 Provide a healthy work environment
- 💧 Promote diversity and equality in personnel matters and contracting
- 💧 Promote environmental, economic, and social sustainability

Goals define what the District wants to achieve; they explain 'what' not 'how', and tell where we are going rather than how we will get there. **Strategies** define which actions to take to reach each goal, and may take several years to implement. **Objectives** reflect what we need to accomplish in the near term. **KPIs** measure how well we are doing in achieving our goals.

KEY PERFORMANCE INDICATOR SUMMARY

The FY18 KPI results are summarized in the table below. The District met or was on target to meet 89% of its KPIs where targets were set and data was available.

Key	Result	# KPIs
++	Target met	45
+	Target not met, but on track	5
--	Target not met	6
n/a	Target/Data not available	4
■	Performance measure only	3
	Total KPIs	63



A summary of the performance of each current KPI from FY16 through FY18, along with its FY18 target is shown in the following table.

KEY PERFORMANCE INDICATOR – SUMMARY	FY18 TARGET	FY18	FY17	FY16
Long-Term Water Supply				
Additional supply by 2040 to provide 85% reliability under design drought conditions and diversify through regional partnerships	Various	++	+	++
62 MGD savings from conservation programs / natural replacement by 2040	Various	++	++	++
20 MGD of recycled water capability by 2040	Various	+	++	++
Update the Climate Change Monitoring and Response Plan. Explore approaches for how to adapt to potential future conditions	Risk Assessment	n/a	n/a	++
Water Quality and Environmental Protection				
Mokelumne River fall-run chinook salmon escapement (long-term avg.)	4,734	++	++	++
% of water quality goals met	100%	+	+	+
% of water quality regulations met	100%	++	++	++
Number of NPDES and Waste Discharge Permit Notices of Violation received	0	++	+	+
Reduce indirect GHG emissions to zero by 2040 and direct emissions by 50% by 2040 compared to the 2000 baseline	36,177 MT CO2	++	++	++
Capture biogas sufficient to produce on-site energy in excess of MWWTP electric power demand	130% of demand	++	++	++
Implement Private Sewer Lateral Program to reduce wet weather flows and achieve a high compliance rate at point of sales	90%	++	++	++
Meet JSA Mokelumne River minimum flow releases 100% of the time	100%	++	++	++



KEY PERFORMANCE INDICATOR – SUMMARY	FY18 TARGET	FY18	FY17	FY16
Long-Term Infrastructure Investment				
Number of water system pipeline breaks per 100 miles of pipe	≤ 20	--	--	--
% of water system corrective work order hours classified high priority	≤ 10%	++	++	++
Miles of pipe surveyed	800	++	++	n/a
% of water system valves exercised	10%	--	--	++
Infrastructure leakage index	N/A - New Indicator	n/a	n/a	n/a
% of high priority meter repair orders completed in 60 days	90%	++	++	++
Miles of distribution pipe replaced	15	++	++	++
Design errors and omission change orders on construction contracts	< 3%	++	++	++
Number of steel water tanks rehabilitated	3	++	++	++
Cumulative % of interceptor assets with major defects that have been repaired	90%	++	++	--
Number of pumping plants rehabilitated	3	++	++	++
Long-Term Financial Stability				
Water rates as compared to other Bay Area agencies	≤ median	++	++	++
Wastewater rates as compared to other Bay Area agencies	≤ median	--	--	--
Water % of capital program funded from debt	≤65%	++	++	++
Wastewater % of capital program funded from debt	≤65%	++	++	++
Water debt service coverage	≥ 1.6 times	++	++	++
Wastewater debt service coverage	≥ 1.6 times	++	++	++
Water actual reserves as % of Target	≥ 100%	++	++	++
Wastewater actual reserves as % of Target	≥ 100%	++	++	++
% of planned audits completed	100%	++	--	--
% of audit findings resolved within 90 days	100%	++	++	++
Water operating expenditures as a percentage of operating budget	≤ 100%	++	++	++
Wastewater operating expenditures as a percentage of operating budget	≤ 100%	++	++	++
Water capital expenditures as a percentage of budgeted cash flow	90% - 110%	--	--	++
Wastewater capital expenditures as a percentage of budgeted cash flow	90% - 110%	--	--	++
Customer and Community Services				
% of customers rating the District's customer services field response as "Good" or "Excellent"	90%	++	++	++
% of customers rating "Overall Job" as "Good" or "Excellent"	70%	n/a	++	n/a
Average speed of answer to calls coming into the Contact Center	≤ 60 seconds	++	++	++
% of calls answered within the target of 60 seconds or less	80%	+	++	++
Abandonment rate	3%	++	++	++
Timely billing of customer statements as scheduled	99%	++	++	n/a
% of time customer dependent systems are available	99.9%	++	++	++



KEY PERFORMANCE INDICATOR – SUMMARY	FY18 TARGET	FY18	FY17	FY16
Unplanned water service interruptions per 1,000 active accounts: <ul style="list-style-type: none"> <4 hours 4-12 hours >12 hours 	≤ 10 ≤ 5 ≤ 2	++ -- ++	++ -- ++	++ -- ++
Electronic bill presentment and payment enhancements	No Target Set	n/a	+	+
Implement new telephony and Interactive Voice Response systems	Complete by December 2017	+	--	n/a
Odor complaints near the MWWTP	≤ 30 complaints	++	++	--
Update the District's Emergency Operation Plan every two years and conduct an EOT exercise annually	100%	++	++	++
Update all Business Continuity plans every two years and conduct an exercise for each annually	100%	++	++	++
Draft / update 2-3 event-specific emergency communication plans	100%	++	++	--
Workforce Planning and Development				
% of competing Leadership Program graduates who place on applicable promotional lists	75%	+	++	++
Annual average training hours per employee	30	++	++	++
Number of employees in development programs (academies, rotations, internships, mentorships)	Performance Measure Only	■	■	n/a
% of performance plans completed on time	>99%	++	++	+
% of performance appraisals completed on time	>99%	++	++	+
Number of injury & illness incidents resulting in time away from work per 100 employees	≤ 3.0	++	++	++
Annually implement outreach campaigns on wellness ("Well Being") themes	4	++	++	■
% of Exams Resulting in Hiring Lists within 60 Days	80%	++	++	++
% of District eligibility lists with AA hire opportunities	Performance Measure Only	■	■	■
Number of internships	Performance Measure Only	■	■	n/a

Long-Term Water Supply

Goal: Ensure a reliable high quality water supply for the future.

Strategy 1

Preserve current entitlements and augment the District's successful water supply projects by obtaining supplemental supplies to meet annual customer demands.



Strategy 2

Reduce potable water demand through water conservation and build on past water savings success to help ensure a reliable water supply.

Strategy 3

Reduce potable water demand through water recycling and build on past success to achieve a diversified and reliable water supply.

Strategy 4

Maintain an updated Climate Change Monitoring and Response Plan to inform the District's planning efforts for future water supply, water quality and infrastructure and support sound water and wastewater infrastructure investment decisions.




Key Performance Indicators - Long-Term Water Supply

Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
Supplemental Supply			
Additional supply by 2040 to provide 85% reliability under design drought conditions and diversify through regional partnerships	Negotiate a Warren Act contract with the Bureau of Reclamation for a long-term water transfer with PCWA	Re-initiated long-term Warren Act coordination with USBR based on new project description. Draft EIR/EIS is scheduled to be published in FY19	+
	Conduct technical and environmental studies to support a second long-term water transfer arrangement with Yuba County Water Agency (YCWA)	Both Boards approved the agreement with YCWA to pursue a 10,000 AF/Year water transfer during summer months through 2025. Technical work for implementing the water transfer continues	++
	Complete design and initiate construction for the DREAM Project in San Joaquin County	The State Water Board approved the temporary change petition for the DREAM Project in March. Construction of delivery facilities is complete. The project made its first deliveries of 111 AF in July. Design and construction of the aqueduct connection is on schedule	++
	Initiate Phase 2 of the Bay Area Regional Reliability (BARR) Feasibility Study	Reclamation approved the final BARR Drought Contingency Plan in Dec. 2017. In Sept. 2017, Reclamation notified EBMUD that the BARR Regional Water Market Project had been selected for a \$400,000 grant	++
Water Conservation			
62 MGD savings from conservation programs / natural replacement by 2040 (baseline year 1995)	1.2MGD average annual conservation savings	Conservation savings continued to exceed the target as a result of District conservation education, incentive and water management programs and customer demand reduction trends	++



Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
	18% reduction in per capita demand by 2018; 20% by 2020	The District is ahead of schedule to meet per capita reductions as a result of ongoing savings	++
	Implement Water Conservation Master Plan	Implementation included home water reports, leak notification, and landscape water budget services; conservation incentives; system water loss control; new water service plan check reviews; WaterSmart business awards; and more	++
	Achieve MOU Best Management Practice compliance	MOU sunseted as California Urban Water Conservation Council was restructured	N/A
Water Recycling			
20 MGD of recycled water capability by 2040	Complete majority of phase 2 customer site conversions in San Ramon and Danville	The majority of phase 2 customer site conversions have been completed	++
	For San Ramon phase 3 pump station, complete property acquisition and CEQA and begin design	CEQA and property acquisition is ongoing. Design has been deferred until supplemental supply is secured	+
	Complete majority of Emeryville customer site conversions	Customer retrofits are continuing	++
	Develop a long-term approach for improving WCWD effluent water quality that includes a higher level of clarity in the roles and responsibilities between EBMUD and WCWD	Completed new refinery agreement for the North Richmond project. New WCWD agreement to be deferred until WCWD management recruitment is complete	+
	Complete recycled water master plan update	Master plan update is continuing. Conducted board briefing and extended schedule for additional outreach	+
Climate Change			
Update the Climate Change Monitoring and Response Plan. Explore approaches for how to adapt to potential future conditions and identify "no regrets" infrastructure investment decisions	Using EPA's CREAT Model Version 3, conduct a broad climate risk assessment on major District infrastructure and operations	The Climate Change Monitoring & Response Plan has not been updated as the Sixth Assessment Report has not been released	N/A



Supplemental Supply: The Water Supply Management Program (WSMP) identified a portfolio of resources to secure an additional 32 MGD of supplemental supply by 2040. It builds on significant achievements, namely construction of the Freeport Regional Water Project and the Bayside Groundwater Phase 1 facilities. In FY18, progress continued on developing and obtaining approvals to implement a long-term water transfer arrangement with the Placer County Water Agency (PCWA). The PCWA project description was revised to mitigate potential project impacts and supporting hydrodynamic and temperature modeling of the American River was completed. Long-term Warren Act coordination with USBR has been re-initiated based on a new project description. An amendment to the agreement with the Yuba County Water Agency (YCWA) to pursue a 10,000 AF/Year water transfer during summer months through 2025 has been approved by both Boards. Technical work for implementing the water transfer has begun. Discussions continued with several Sacramento River settlement contractors for establishing another long-term transfer agreement.


Progress continued toward development of a groundwater banking demonstration project in partnership with San Joaquin County. The operations and funding agreements were executed in October 2017, and in March 2018 the State Board approved the project's temporary change petition for water rights coverage. Delivery facilities have been built. Design is underway of EBMUD facilities necessary to convey extracted water to the Mokelumne Aqueducts in a future year. The project made its first delivery of Mokelumne River water to farmers in July 2018.

EBMUD also partnered with the Contra Costa Water District (CCWD) on the initial stages of the Los Vaqueros Reservoir Expansion Project. While determining whether or not to participate in the project, EBMUD is participating in planning level efforts including preparation of environmental documents and funding applications. In July 2018, the California Water Commission awarded the Los Vaqueros Project \$457 million in funding from Proposition 1.

Water Conservation: In FY18, EBMUD continued implementing conservation strategies and programs identified in the Water Conservation Master Plan (WCMP). Activities advanced educational, technical and financial conservation services to assist customers with reducing their water use. Water management tools and services such as residential home water reports, irrigation landscape water budgets, and potential leak notifications to manage water use has remained an area of interest for customers and a key focus for the District's customer engagement efforts.

Although water consumption gradually increased during the post drought rebound period, customers continued to maintain water efficiency practices to sustain approximately a 12 percent overall demand reduction in comparison to the 2013 pre-drought base year. These water use and conservation trends are expected to continue at similar levels during average water years going forward, as the District works to lock in water conservation savings in support of long-term supply reliability goals.

In March 2018, the California Water Efficiency Partnership (formerly the California Urban Water Conservation Council) was officially launched as a new non-profit organization to provide leadership on water efficiency issues in California. As a result, the Best Management Practices Memorandum of Understanding resulting in compliance with the MOU is no longer an applicable KPI.



Water Recycling: The target for water recycling is to reduce demand for potable water by 20 MGD by the year 2040. Recycled water use of 9 MGD has been achieved through a combination of irrigation and industrial reuse projects. Existing recycled water uses include refinery processes, irrigation, and commercial applications in Richmond, Oakland, Emeryville, Alameda and San Ramon.

In FY18, a study was in progress to evaluate water quality treatment improvements for the East Bayshore project while irrigation customer conversions continued in Emeryville. The new agreement with the North Richmond refinery was completed. The DERWA treatment plant expansion project was completed and was approved for a \$2.5 million principal forgiveness loan from the state. Customer retrofit work continued in San Ramon to connect more users to the recycled water systems. CEQA and property acquisition work continued on EBMUD's proposed recycled water pump station in San Ramon. Also, work continued on updating the recycled water master plan.

Climate Change: This KPI ensures the District's future water supply and infrastructure planning incorporates adaptation to and mitigation of climate change. The Climate Change Monitoring & Response Plan (CCMRP) was updated in 2014 and summarizes the District's work on climate change based on the Intergovernmental Panel on Climate Change's (IPCC's) Fifth Assessment Report, and the 2014 US National Climate Assessment Report. New or revised recommended actions include:

- Conducting an inventory of the District's greenhouse gas emissions annually;
- Investigating new renewable energy projects consistent with Energy Policy 7.07; and
- Updating the District's Energy Management Strategy.

Staff continues to work on these actions.

The District completed climate change assessments using version 2.0 of the EPA's Climate Resilience Evaluation & Awareness Tool (CREAT). The EPA developed the CREAT software tool to assist water and wastewater utilities in understanding potential climate change threats and assessing the related risks at their individual utilities.

The IPCC is preparing its Sixth Assessment Report and the CCMRP will be reviewed and updated once the report is released. In addition, staff is investigating alternative approaches to advancing the District's adaptation and mitigation measures, including a sustainability master plan.

Water Quality and Environmental Protection

Goal: Meet or surpass environmental and public health standards and protect public trust values.

Strategy 1

Manage the Mokelumne and East Bay watersheds to ensure a high quality water supply and protect natural resources while providing appropriate public access.



Strategy 2

Operate and maintain District facilities to surpass federal and state drinking water regulations.

Strategy 3

Operate and maintain District facilities to anticipate and meet all water discharge, air emission, and land disposal requirements to protect and enhance the environment.

Strategy 4

Minimize impacts to the environment by reducing, recycling, reusing and reclaiming waste, and by conserving natural resources.

Strategy 5

Ensure protection and stewardship of San Francisco Bay.



Strategy 6

Operate Pardee and Camanche Reservoirs and facilities jointly as an integrated system to achieve multiple objectives including municipal water supply, stream flow regulation, environmental protection, flood control, hydropower, and releases for downstream requirements.

Key Performance Indicators - Water Quality and Environmental Protection

Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
Watershed Protection			
Mokelumne River fall-run chinook salmon escapement (long-term average)	4,734	13,021	++
Compliance with Drinking Water Regulations			
% of water quality goals met	100%	97%	+
% of water quality regulations met	100%	100%	++
Compliance with Wastewater Regulations			
Number of NPDES and Waste Discharge Permit Notices of violation received	0	0	++
Sustainable Resource Management			
Reduce indirect GHG emissions to zero by 2040 and direct emissions by 50% by 2040 compared to the 2000 baseline	36,177 MT CO2	20,884 MT CO2	++
Capture biogas sufficient to produce on-site energy in excess of Main Wastewater Treatment Plant electric power demand	130% of plant power demand	143%	++
Protect SF Bay			
Implement Private Sewer Lateral Program to reduce wet weather flows and achieve a high compliance rate at point of sales	90%	94%	++
Operate Pardee and Camanche			
Meet JSA Mokelumne River minimum flow releases 100% of the time	100%	100%	++

Watershed Protection: The target for the number of fish returning (escapement) to the Mokelumne River was based on the long-term average since 1940. FY18 performance represents the average escapement over the past six-years (2 cohorts). The escapement for FY18 alone was 19,954 fish, which is the highest return recorded since 1940.

Through the Lower Mokelumne River Partnership, the District initiated management actions including pulse flow events in the fall and other strategies to improve juvenile survival during drought years. As a result, the return to the Mokelumne was 411 percent of the long-term average. The Mokelumne population made up roughly 20 percent of California's commercial catch and 35 percent of the recreational ocean fisheries. The Mokelumne River Fish Hatchery continues its leadership role within Central Valley hatcheries and produced roughly 6 million juvenile Chinook salmon; most of the escapement on the Mokelumne is comprised of hatchery origin fish.



Compliance with Drinking Water Regulations: In FY18, the District again met 100 percent of state and federal drinking water regulations. At the end of the fiscal year, 97 percent of the District's internal water quality goals were met, the same as in FY17 and greater than the 94 percent in FY16. The District has voluntarily set 125 water quality goals that are more stringent than federal and state standards to further improve water quality for its customers. Levels of chlorinated disinfection byproducts exceeded District goals but remained below regulatory levels. Levels of n-nitrosodimethylamine (NDMA) and post-filter turbidity at the treatment plants ~~were~~ also exceeded District goals. Major taste and odor events were avoided while ozone facilities at two water treatment plants were offline to support construction. The District also continued its efforts to minimize customer's potential exposure to lead in water. Lead sampling for K-12 schools is ongoing, and staff anticipates no problems completing this program by the regulatory deadline. These issues are detailed in the August 2018 Water Quality Program Semi-Annual Update presented to the Planning Committee.

Compliance with Wastewater Regulations: The District met its goal with no violations of the National Pollutant Discharge Elimination Permit (NPDES) and Waste Discharge Requirements permits. In addition, there were no NPDES violations at the Main Wastewater Treatment Plant, demonstrating 222 consecutive months of continued compliance.

Sustainable Resource Management: District policy established a 2040 goal to be carbon-free for indirect emissions, and to reduce direct emissions by 50 percent compared to the 2000 baseline. The District's 2017 direct and indirect emissions were under the interim targets and overall emissions reductions are in line with the long-term goals. These results will be discussed at the October 2018 Sustainability/Energy Committee meeting.

The goals for producing on-site energy in excess of the electric power demand at the Main Wastewater Treatment Plant (MWWTP) are to reduce costs, increase revenues and minimize greenhouse gas emissions associated with wastewater operations. Supported by both energy conservation efforts and the Resource Recovery program, the on-site generation provided 143 percent of MWWTP energy demand, exceeding the new target of 130 percent. The MWWTP met this KPI for the fifth consecutive year.

Protect SF Bay: Cracks in Private Sewer Laterals (PSLs) lead to infiltration during wet weather, which cause discharges of partially treated wastewater into SF Bay through the Wet Weather Treatment facilities. Therefore, compliance with the District's point-of-sale PSL Program reduces wet weather discharges and protect the Bay. Over time the program will also position the District for compliance with the Wet Weather Consent Decree. The PSL Program achieved 94 percent compliance, exceeding the target and similar to the 95 percent in FY17.

Long-Term Infrastructure Investment

Goal: Maintain and improve the District's infrastructure in a cost effective manner to ensure sustainable delivery of reliable, high quality service now and in the future, addressing economic, environmental, and social concerns.

Strategy 1

Maintain coordinated master plans for all facilities and assets.

Strategy 2

Meet operational needs and reliability goals by effectively maintaining the infrastructure.



Strategy 3

Implement the master plans and set priorities in the operating and capital budget process to reflect the needs identified in those plans.



Key Performance Indicators - Long-Term Infrastructure Investment


Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
Effective Management of Infrastructure			
Number of water system pipeline breaks per 100 miles of pipe	≤ 20	21.4	--
% of water system corrective work order hours classified high priority	≤ 10%	3.4%	++
Miles of Pipe Surveyed	800	1,775	++
% of water system valves exercised	10%	6.1%	--
Infrastructure Leakage Index	N/A - New Indicator	3.06	N/A
% of high priority meter repair orders completed in 60 days	90%	97%	++
Capital Budget Priorities			
Miles of distribution pipe replaced	15	15.05	++
Design errors and omission change orders on construction contracts	<3%	3.0%	++
Number of steel water tanks rehabilitated	3	3	++
Cumulative % of interceptor assets with major defects that have been repaired	90%	93%	++
Number of pumping plants rehabilitated	3	3	++

Effective Management of Infrastructure: For the 4,246 miles of pipe in the system, there were a total of 891 breaks which is slightly less than FY17, and 25 percent less than FY16. However, the number of pipeline breaks still exceeded the target. The goal of the Pipeline Rebuild Program is to increase the miles of pipe replaced each year, which is expected to decrease the number of breaks.

There were 285 high priority work orders completed out of a total 8,412 corrective work orders, or 3.4 percent. This was an improvement over the 5.7 percent in FY17, and met the target of having less than 10 percent of water system corrective work orders classified as high priority.

In FY18, the District surveyed 1,775 miles of pipe, more than twice the target of 800 miles. EBMUD continued to pilot satellite imagery, and also installed 1,000 leak detection loggers on hydrants to monitor water distribution pipes near creeks. Other loggers were placed throughout the distribution system to monitor leaks before they surface in high risk areas, such as pipes in slide areas and/or near fault lines.

In FY18, a total of 3,523 of the 57,432 (6.1 percent) system valves were exercised, 1,741 of which were planned inspections and 1,782 were operated in response to main breaks. This does not meet the target of 10 percent, and is less than the 4,138 that were exercised in FY17 as staff was reassigned to



the Pipeline Rebuild program. This KPI covers only the system valves used to isolate leaks during main breaks and other maintenance activities.

The Infrastructure Leakage Index (ILI), a new KPI in FY17, is the ratio of Current Annual Real Losses (leaks in the distribution system) to Unavoidable Annual Real Losses to provide a benchmark for water loss in the distribution system. The Unavoidable Annual Real Loss is a calculation of the theoretical lowest leakage possible using the best available technologies. AWWA studies showed that the average ILI ranges between 2.5 and 3.0, where the lower the number the better. The District's 2017 calendar year index of 3.06 was calculated using AWWA software, and was greater than the 2016 index of 2.29 which indicates that losses in the water distribution system are slightly above the AWWA average. Water Treatment Plant (WTP) flow meters play a key role in the District's ILI value. In 2017, more accurate flow meters were installed at Orinda, the WTP that produces the greatest percentage of the District's water. The new flow meters are the probable cause of the increased ILI value for 2017. Verification of all WTP effluent flow meters will be conducted in the future.

In FY18, the target for meter repair orders completed within 60 days was met with 97 percent completed, similar to the 98 percent in FY17.

Capital Budget Priorities: Pipeline replacements again exceeded the target totaling 15.05 miles in FY18, similar to the 15.2 miles in FY17, and greater than the 13.5 miles replaced in FY16.

Design errors and omissions change orders on combined Water and Wastewater System contracts were 3.0 percent: the Water System was 3.5 percent on contracts worth \$46.1 million, an increase from contracts worth \$15.0 million in FY17; and Wastewater was 0.3 percent on contracts worth \$8.3 million, a decrease from contracts worth \$22.5 million in FY17.

In June 2018, the District awarded a contract to rehabilitate three steel reservoirs: Arcadian in Castro Valley, Larkey in Walnut Creek and Rheem in Lafayette. The work will extend the life of these water storage assets and includes demolishing deficient wood roofs, installing new aluminum dome roofs, installing exterior stairs and platforms for safe access, recoating the interior of the tanks, painting the exterior and installing security fencing.

The KPI regarding the repair of interceptor assets with major "Class D" rated defects tracks the progress in correcting defects or deterioration in the interceptor system. In FY18, 738 linear feet (LF) of "Class C" pipeline and 746 LF of "Class B" pipeline were rehabilitated. In addition, one "Class D" and two "Class C" manholes were rehabilitated. The FY18 work was part of a multi-year construction project under which much of the "Class D" rehabilitation had been addressed in a previous year.

The District met the KPI to replace, rehabilitate, or demolish an average of 3 pumping plants per fiscal year. In FY18, final designs and contract documents were completed to replace or rehabilitate three pumping plants: University in Berkeley, and Fire Trail and Jensen in Castro Valley. Pumping plant rehabilitation projects are normally awarded in the same fiscal year that they are designed. However, due to unanticipated delays in the City of Berkeley's Panoramic Hill Paving Project and additional time needed to address constructability issues, these pumping plant rehabilitation projects will be awarded in FY19.

Long-Term Financial Stability

Goal: Manage the District's finances to meet funding needs and maintain fair and reasonable water and wastewater rates.

Strategy 1

Maintain a Long-Range Financing Plan that sets forth the long-term funding needs of the District.



Strategy 2

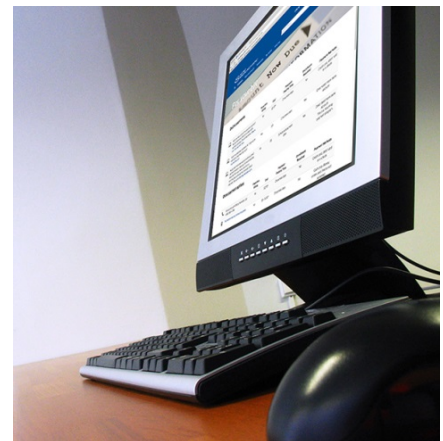
Implement water and wastewater rates and charges that are legal, fair, reasonable, and equitable.

Strategy 3

Ensure integrity, accountability and transparency in financial management.

Strategy 4

Implement technologies that improve the efficiency and effectiveness of business processes.




Key Performance Indicators - Long-Term Financial Stability

Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
Sufficient Revenue/Fair Rates & Charges			
Rates as compared to other Bay Area agencies	At or below median	Water – below median Wastewater – above median	++ --
Financial Position			
% of capital program funded from debt	≤ 65%	Water – 44% Wastewater – 15%	++ ++
Debt service coverage	≥ 1.6 times coverage	Water – 2.15 Wastewater – 2.51	++ ++
Actual reserves as % of target	≥ 100%	Water >100% Wastewater >100%	++ ++
Integrity, Accountability and Transparency			
% of planned audits completed	100%	100%	++
% of audit findings resolved within 90 days	100%	100%	++
Budget Performance			
Operating expenditures as a percentage of operating budget	≤ 100%	Water - 91% Wastewater - 95%	++ ++
Capital expenditures as a percentage of capital budgeted cash flow	90% - 110%	Water - 116% Wastewater –85%	-- --

Sufficient Revenue/Fair Rates & Charges: The District uses a comparison of rates and charges with other Bay Area agencies as an indicator of whether these costs are fair and reasonable. EBMUD's annual water bill for an average single family using 8 Ccf per month was below the median of surveyed agencies as 9 of the 12 agencies had higher bills. The annual wastewater bill for an average single family discharging 6 Ccf per month was above the median as 3 of the 15 agencies surveyed had higher bills. The wastewater bill includes non-EBMUD charges such as community collection charges that represent more than 50 percent of the overall bill.

Financial Position: The District has a policy to limit debt funded capital to no greater than 65 percent of the total capital program over each five-year planning period. The percent of the Water System capital program funded by debt was 44 percent, less than the 56 percent in FY17 and the 53 percent in FY16. The percent of the Wastewater System capital program funded by debt was 15 percent, a decrease from the 32 percent in FY16 and the 48 percent in FY16.

The District has a policy to maintain an annual revenue bond debt service coverage ratio of at least 1.6 times. The Water System debt coverage was 2.15 which exceeded the 1.87 and 1.65 coverage in FY17 and FY16 respectively. The Wastewater System debt coverage ratio was 2.51 which exceeded the 2.24 and 1.98 in FY17 and FY16 respectively.



The District's goal is to meet or exceed the target for operating reserves. The target reserve levels of \$148.8 million for the Water System and \$78.0 million for the Wastewater System were exceeded which allows the balance in excess of the target to be used to fund capital projects.

Integrity, Accountability and Transparency: The Internal Audit section provides assurance that assets are properly maintained, controlled and accounted for; financial and operating reports are accurate; and that staff complies with District policies and procedures as well as applicable regulations, ordinances and statutes. Audits of departments, programs, processes and/or functions are performed to assess the internal control environment and determine the adequacy and effectiveness of the preventive and or detective controls in place to mitigate risks.

Four of the five projects listed in the initial FY18 plan were completed, and one of the audits was postponed due to an initiative undertaken by staff. Instead, a review was conducted related to the recruitment process as well as follow-up on a previously completed review of the Customer Assistance Program. The status of internal audit efforts was provided as part of the Semi-Annual and Annual Internal Audit Report presented to the Finance/Administration Committee in January and July 2018.

Corrective actions have been initiated to address all recommendations related to the identified findings. Follow-up review and testing will be conducted on an ongoing basis to confirm corrective actions, once fully implemented, remain in place.

Budget Performance: This KPI measures the variance between spending and the amended budget, with a target not to exceed 100 percent of the operating budget which includes debt service, and capital spending to be between 90 and 110 percent of budget.

The FY18 Water System operating expenditures were 91 percent of budget primarily due to: lower expenditures for self-insured liability and workers' compensation claims; the North Richmond Water Reclamation Plant being out-of-service during the fiscal year; contract services such as program costs for lead sampling in K-12 schools; labor savings attributable to a large number of vacant positions driven by retirements and the recruitment lead time; higher than budgeted offset for the administration of capital; and unspent contingency funds. In FY17, water expenditures were 93 percent of budget. The FY18 Wastewater System operating expenditures were 95 percent of budget primarily due to lower than planned use of chemicals related to solids thickening and the dechlorination processes; a higher than budgeted offset for the administration of capital; and unspent contingency. In FY17, wastewater expenditures were 93 percent of budget.

Capital spending was 116 percent of budget for the Water System, but fell within the total amount of multi-year capital appropriations approved by the Board. The higher expenditures were primarily due to: spending more than planned for the ozone system improvements at the Sobrante and Upper San Leandro water treatment plants; an increase in the number of hydrants and new service installations; and greater than budgeted administration of capital. Capital spending was 85 percent of budget for the Wastewater System primarily due to contract delays in the Digester Upgrade project and 3rd Street Sewer Interceptor Rehabilitation project, but was partially offset by greater than budgeted administration of capital.

Customer and Community Services

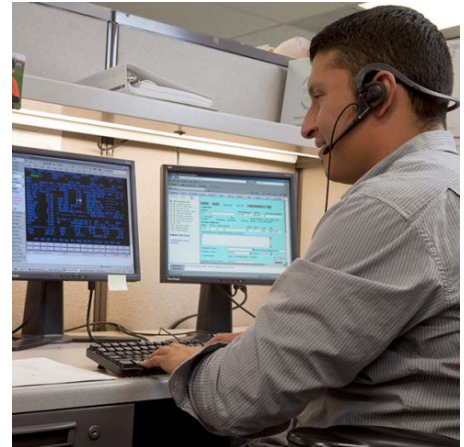
Goal: Maintain and enhance service excellence through continuous improvement.

Strategy 1

Understand customer expectations, opinions and satisfaction levels by obtaining feedback, and use input to inform our business decisions.

Strategy 2

Enhance the customer experience and improve operational efficiencies by investing in cost effective technology.



Strategy 3

Provide reliable, responsive, and quality service to customers at fair and reasonable rates and charges.

Strategy 4

Maintain an active Emergency Preparedness Program to plan for and manage the District's functions during an emergency and allow for an efficient and effective recovery following an emergency.




Key Performance Indicators - Customer and Community Services

Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
Customer Satisfaction			
% of customers rating customer services field response as "Good" or "Excellent"	90%	96%	++
% of customers rating "Overall Job" as "Good" or "Excellent"	70%	n/a	N/A
Average speed of answer to calls coming into the Contact Center	≤ 60 seconds	44 seconds	++
Contact Center service level: % of calls answered within the target of ≤60 seconds	80%	79%	+
Abandonment rate	3%	3%	++
Timely billing of customer statements as scheduled	99%	99.6%	++
% of time customer dependent systems are available	99.9%	99.9%	++
Unplanned water service interruptions per 1,000 active accounts			
< 4 hours	≤ 10	5.9	++
4-12 hours	≤ 5	5.5	--
> 12 hours	≤ 2	1.1	++
Electronic bill presentment & payment enhancements	No Target Set	Completed May 2017	N/A
Implement new telephony and Interactive Voice Response systems	Complete installation by December 2017	Completed March 2018	+
Odor complaints near the MWWTP	≤ 30 complaints	17	++
Emergency Preparedness			
Update the District's Emergency Operation Plan every two years and conduct an EOT exercise annually	100%	100%	++
Update all Business Continuity Plans every two years and conduct an exercise for each annually	100%	100%	++
Draft and/or update 2-3 event-specific emergency communication plans annually	100%	100%	++

Customer Satisfaction: In FY18, the District completed a total of 187 field service survey responses compared to 162 in FY17. Ratings continue to be high at 96 percent of customers rating service as "good or excellent" which is similar to the 96 percent in FY17 and the 98 percent in FY16.

The biennial residential customer opinion survey was not scheduled to take place in FY18. An RFP will be issued and the survey will take place in FY19 to gather, analyze and report on customer feedback



regarding the District's water and wastewater services. In FY17, 73 percent of surveyed customers rated the "overall job EBMUD is doing" as "good" or "excellent".

The Contact Center receives over 300,000 calls and emails annually. In FY18, the Contact Center effectively achieved its service level by answering 79 percent of calls within 60 seconds while implementing the new telephony system. The FY18 result is less than the 85 percent achieved in FY17, but greater than the 78 percent in FY16. The Contact Center met its goal of answering calls in less than 60 seconds with an average time of 44 seconds, and a call abandonment rate of 3 percent.

The timely billing of 99.6 percent of customer statements met the goal. Significant progress has been made in this area over the last four years. In FY18, the average weekly number of delayed bills was 372, higher than the 291 in FY17, but considerably lower than the 711 in FY16 and the 1,310 in FY15.

The availability of automated systems used by customers (Internet, Call Center and Dispatch Center telephones, Customer Information System, and Integrated Voice Response (IVR) self-service applications) is also a measure of customer satisfaction. The systems supporting the KPI had minimal system interruption during FY18, with the exception of intermittent customer call disruptions during two weeks in March 2018. During that period, the District was transitioning the Contact Center IVR system to an Internet-based call center.

Minimizing the impacts to customers from unplanned water service interruptions is vital. The District did not meet its KPI for interruptions lasting 4-12 hours, but achieved a 14 percent improvement compared to FY16, and improved in all three categories for the second year in a row. The improvement is likely due to a decrease in the number of main breaks which resulted in a reduced number of shutdowns required for repairs.

The District completed the electronic bill presentment and payment project in May 2017, which enables customers to pay via text and immediately sign up for electronic bill presentment and payment directly from EBMUD's website. The service portal was enhanced and integrated with the District's website, and customers are now able to view an array of information and access their service accounts. Since the implementation, customers have enrolled at a rate nearly five times higher than in previous years, improving customer satisfaction.

With the completion of the new telephony system in March 2018, the Contact Center is anticipating an improvement in the customer self-service IVR system and overall Contact Center phone technology. Staff continues to explore the new technology to improve the customer experience, performance management, and reporting capabilities.

Another KPI is to have no more than 30 odor complaints attributable to the Wastewater Treatment Plant. In FY18, the District met the target with 17 odor complaints received, which is less than the 28 complaints received in FY17. The continued decrease in the number of odor complaints is likely related to several factors including proactively planning work to minimize the potential for generating odors, continuing to optimize operational and maintenance practices to minimize the potential for creating odors, and proceeding with capital projects to enhance odor control management.



Emergency Preparedness: These KPIs measure the District’s ability to maintain an active emergency preparedness program by retaining current documentation and testing emergency response and business continuity plans. In FY18, the District continued to make significant progress in mitigating risk, preparing for a disaster, and improving its readiness to respond to emergencies.

The Emergency Operations Plan was updated in FY17. The District conducted or participated in 47 exercises, tests and drills including those with other agencies and mutual assistance partners. The exercises included: a key functional exercise of the Emergency Operations Team with a major main break and potential cross contamination with a sewer line; the bi-annual District-wide emergency communications drill; functional exercises of alternative work locations; and a functional exercise of the Board of Director’s Alternative Work Location Plan by conducting a Board meeting in Orinda.

For the sixth year in a row, the District met the KPI for updating Business Continuity plans (BCPs) every two years and conducting exercises for each BCP once a year.

Details concerning the BCP and emergency preparedness programs are contained in the Annual Readiness Report and Program Update presented to the Planning Committee in August 2018.

Workforce Planning and Development

Goal: Create an environment that attracts, retains and engages a high performing diverse workforce in support of the District's mission and core values.

Strategy 1

Maintain robust workforce plans to determine future needs, identify gaps and implement actions to close the gaps.

Strategy 2

Continue to develop employees to meet workforce demands.

Strategy 3

Integrate District values, recognize employee contributions, and establish clear performance measures to achieve a high performance culture.

Strategy 4

Enhance the District's ability to recruit a highly qualified, diverse staff.




Key Performance Indicators - Workforce Planning and Development

Key Performance Indicator	FY18 Target	FY18 Performance	Target Met?
Employee Development			
% of competing Leadership Program graduates who place on applicable promotional lists	75%	69%	+
Annual average training hours per employee	30	43	++
Number of employees in development programs (academies, rotations, internships, mentorships)	Performance Measure Only	361	N/A
Performance Culture			
% of performance plans completed on time	>99%	100%	++
% of performance appraisals completed on time	>99%	100%	++
Number of injury & illness incidents resulting in time away from work per 100 employees	≤ 3.0	1.1	++
Annually implement outreach campaigns on wellness ("Well Being") themes	4	40	++
Recruitment			
% of exams resulting in hiring lists within 60 days or less	80%	93%	++
% of District eligibility lists with AA hire opportunities	Performance Measure Only	90%	N/A
Number of Internships	Performance Measure Only	42	N/A

Employee Development: The effectiveness of our developmental academies (e.g., LEAD and Pathways) is measured by the percentage of competing Leadership Program graduates who place on promotional lists. In FY18, 69 percent of all LEAD and Pathways graduates placed on hire lists. LEAD Academy graduates placed at an 80 percent rate. With only six remaining Pathways graduates available for promotion, three of the six placed on hire lists. In FY17, 75 percent of all LEAD and Pathways graduates placed on hire lists.

The annual average number of training hours per employee is a common indicator benchmarked by employers. During FY18, employees averaged 43 training hours. This significant increase from 35.8 hours in FY17 is in large part due to the numbers of new employees, activation of new equipment (technical training), and HR Compliance training (harassment prevention).

The number of employees in development programs measures the engagement and the development of employees. In FY18, 361 employees participated in such programs including engineering rotations,



values and organizational improvement teams, internships, career counseling, and mentoring new employees. In FY17, 329 employees participated in such programs.

Performance Culture: This KPI measures the percent of employees with performance plans and appraisals completed within the past 13 months. For the first time in the fourteen years that this data has been tracked, 100 percent of employees have a current performance plan and appraisal in place.

The Employee Injury and Illness Lost Time Incidence Rate is used by OSHA and the Bureau of Labor Statistics to show the number of job-related injuries and illnesses that result in one or more lost workdays by employees. For FY18, the rate was 1.1 (there were 19 lost time injuries recorded, a decrease from the 24 in FY17) which is less than the FY17 rate of 1.5, and the FY16 rate of 1.3.

The number of wellness campaigns significantly increased this year numerous events held in January's Wellbeing Month. The fiscal year began with the JP Morgan Chase Corporate Challenge held in San Francisco which is a 3.5-mile running event open to groups of full-time employees from organizations within the business and public sectors. EBMUD had over 30 participants. The District kicked off a robust Wellbeing month in January with many employee volunteers designated as wellbeing champions who helped host 18 diabetes roadshow presentations, 9 presentations on sleep, personal finance and mindfulness, 12 workouts, the "Inspired by TED" event where 6 employees gave short talks on Wellbeing and the impact in their personal lives, and organic fruit delivery to all employees. The cost of these wellness events was partially offset by a \$2,000 grant received from the Association of California Water Agencies Joint Powers Insurance Authority. In May, the Wellbeing Champions promoted Bike to Work Month and the new tracking tools that allowed for EBMUD teams to challenge each other, as well as teams in other companies across the East Bay. Staff also hosted meetings with Fidelity Investments for financial wellbeing throughout the year.

Recruitment: The percent of exams resulting in hiring lists within 60 days is a measure of the hiring process, and is based on the time from the close of application filings to the establishment of eligible lists. In FY18, there were 116 exams completed and 108 resulted in hiring lists within 60 days. This is the fifth year in a row where the KPI exceeded 90 percent. In FY17, there were 85 exams completed.

The District tracks the diversity of candidates considered for employment to determine if recruitment efforts are attracting sufficiently diverse qualified candidates. In FY18, the AA Opportunity Rate (the percent of qualified underutilized candidates of the total qualified candidates considered during the hiring interviews) was 90 percent which is greater than the previous three years. This KPI does not measure the diversity of candidates actually hired. We report performance on this measurement, but do not set targets. Key outreach strategies launched in FY15 are attributable to the steady rise in AA opportunities. During FY19, the District will continue these outreach efforts as well as launch other outreach and workforce development programs to continue attracting qualified diverse candidates.

In FY18, the District launched the annual Summer Youth Program hosting 42 high school interns. This internship program introduces diverse members of the community to career opportunities with the District, including in the trades, and develop a pipeline of candidates for our future workforce. In FY17, two internship programs were launched with a total of 39 interns.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Proposed Fiscal Year 2019 (FY19) Financing Plan

SUMMARY

During FY19, the District is proposing to undertake two debt-related transactions. The first proposed transaction will extend the liquidity facility for the Commercial Paper Notes (Water Series) Subseries A-2 (approximately \$160 million). The existing liquidity facility expires on November 30, 2018. The second proposed transaction is the issuance of new money revenue bonds in late FY19 to support FY19 and FY20 Water System capital spending. Staff does not currently foresee the need to issue revenue bonds for the Wastewater System in FY19. Staff will continue to pursue low-interest state and federal loans when available. Staff will also continue to monitor the market for opportunities to restructure existing debt for de-risking and debt service savings. Any refunding or restructuring opportunity would be brought to the Board for consideration.

A presentation on this plan will be provided to the Finance/Administration Committee on October 23, 2018.

DISCUSSION

The District's financing activities generally fall into three basic categories:

- A. Administration of Existing Debt Portfolio — The District's debt portfolio requires payment of debt service, payment of ongoing debt-related fees, periodic renewal or replacement of liquidity facilities, and ongoing continuing disclosure activities.
- B. New Money Issuance — The District finances its capital plan through a combination of cash on hand and the issuance of debt. Periodically, the District enters the debt markets to raise funds for capital needs. This debt is secured by the revenue the District receives. The District also pursues other financing sources like State Revolving Fund loans or federal Water Infrastructure Finance and Innovation Act (WIFIA) loans.

- C. Market Opportunities — Changes in the financial markets may afford the District opportunities to achieve debt service savings and/or reduce certain risks of the debt portfolio.

The table below summarizes the planned financing transactions for FY19 in each of the three categories.

Description	Issue/Approximate Size	Date of Board Action	Pricing or Issuance Date
1. Extend Bank of America Revolving Credit Agreement for Commercial Paper Notes (Water Series) Subseries A-2	\$160 million	10/23/2018	10/31/2018
2. Issue additional new money Revenue Bonds	Water: Up to \$200 million Wastewater: None	TBD	TBD
3. Pursue State Revolving Fund or WIFIA loans	As appropriate	TBD	TBD
4. Issue refunding and de-risking financings	Based on market opportunities	TBD	TBD

A. Administration of Existing Debt Portfolio

Transaction:

- 1. Extend Bank of America Revolving Credit Agreement for Commercial Paper Notes (Water Series) Subseries A-2*

The District's Water System commercial paper program consists of two subseries: A-1 and A-2. Each subseries is supported by a bank credit facility to cover any failure of a commercial paper dealer to remarket the notes. The liquidity facility for the Subseries A-2 Notes is a Revolving Credit Agreement provided by Bank of America, N.A. in an amount of \$160 million. The original agreement was executed in December 2015 and expires on November 30, 2018. The liquidity facility must be extended or replaced prior to this date. The documents related to an extension of the agreement are the subject of a separate Finance/Administration Committee presentation on October 23, 2018 and will be presented to the Board for consideration at its regular meeting the same day.

B. New Money Issuance – Financing Capital Plan

Transactions:

- 2. Issue additional new money water revenue bonds*
- 3. Pursue State Revolving Fund and WIFIA loans*

2. Issue additional new money water revenue bonds

In the FY18 and FY19 budget the District forecasted approximately \$1.5 billion of total capital expenditures in the Water System for the five-year period through FY22. Bond funded new money needs for the Water System over this period were expected to be approximately \$783 million. The most recent Water Revenue Bond issue in June 2017 provided \$275 million in capital funding for FY17 and FY18. No Water Revenue Bonds were issued in FY18. The current budget projects debt needs of \$149 million for FY19. Staff currently foresees issuing up to \$200 million near the end of FY19 to cover approximately \$50 million in FY19 capital spending and \$150 million in FY20. Fewer debt proceeds are needed to fund FY19 capital than budgeted due to strong FY18 financial performance.

For the Wastewater System in the FY18 and FY19 budget the District forecasted approximately \$188 million of total capital expenditures for the five-year period through FY22. Bond funded new money needs for the Wastewater System over this five-year period were expected to be approximately \$65 million. Near the end of FY17, the District issued Wastewater Revenue Bonds which provided \$20.5 million in proceeds to cover a portion of FY18 capital expenses. Given the favorable financial results in FY18, staff currently projects no new money debt needs for the Wastewater System in FY19.

3. Pursue State Revolving Fund and WIFIA loans

While revenue bonds remain the District's primary source of debt, staff seeks out alternative sources of cost-effective debt funding. Currently the State Water Resources Control Board's (SWRCB) State Revolving Fund (SRF) program offers loans at low interest rates. While the loan applications require a significant amount of staff time and the loans are not guaranteed to be approved by the SWRCB, if approved, they offer a way for the District to save on interest costs. The interest rate for SRF loans is set annually based on one half of the State's general obligation bond rate.

Staff initially submitted applications for two SRF financings in FY16, which were ready for Board approval in September 2017. At that time, loans of up to \$22.2 million for the South Reservoir Replacement Project and \$18.7 million for the MacArthur Davenport Pipeline Replacement Project were approved by the Board. These loans have now been executed and the District is applying for loan disbursements. In addition, the District has applied for a third SRF loan for \$27.3 million to fund a Wastewater project which is in the approval process. One additional loan for \$27.8 million was submitted in FY18, but the District withdrew as the SWRCB had requirements not acceptable to the District.

Staff is also exploring the use of federal WIFIA loans for lower cost borrowing. The interest rate on a WIFIA loan is based on U.S. Treasury rates. While this rate would likely be above that of an SRF loan, it could be below the District's long term revenue bond borrowing costs. WIFIA loans can also offer greater repayment flexibility and longer terms compared with typical revenue bonds. In FY19, staff will work to consider a programmatic approach to future state and federal loans.

C. Market Opportunities - Achieving Debt Service Savings/De-risk Debt Portfolio

Transaction:

4. Issue refunding and de-risking financings

In recent years the Board has authorized bond financings resulting in a successful program of reducing both cost and risk while simplifying the debt portfolio. As a result, only 3.8 percent (\$105.3 million) of the Water debt portfolio remains synthetically fixed, and the Wastewater debt portfolio contains no synthetically fixed debt. Staff will continue to monitor the market to identify opportunities for de-risking and/or refunding for savings. Should any such opportunities prove attractive, they will be brought to the Board for consideration.

NEXT STEPS

The proposed financing plan for FY19 will be presented to the Board for consideration at its regular meeting on October 23, 2018.

ARC:SDS:RH

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Extend Revolving Credit Agreement for Commercial Paper Notes (Water Series) Tax-Exempt Subseries A-2

SUMMARY

Bank of America, N.A. (BANA) provides liquidity support for the District's Commercial Paper Notes (Water Series) Tax-Exempt Subseries A-2 (Subseries A-2 Commercial Paper Notes) through a Revolving Credit Agreement which expires on November 30, 2018. The Subseries A-2 Commercial Paper Notes are outstanding in the amount of \$160 million. In response to the District's Request for Proposals (RFP) for liquidity facilities, BANA offered to extend the Revolving Credit Agreement for three years, to November 2021, and lower its annual fee from 0.325 percent (32.5 basis points) to 0.30 percent (30 basis points). The amendment is cost-effective relative to other proposals received after incorporating transaction costs associated with changing liquidity providers. The amendment and related fee agreement will be presented and discussed with the Finance/Administration Committee on October 23, 2018.

DISCUSSION

The Water System's commercial paper notes are issued with maturities of up to 270 days. Issuers of commercial paper typically provide backup liquidity support when notes coming due cannot be rolled over (i.e., paid from proceeds of the sale of new notes). The District has covenanted to procure and maintain one or more liquidity facilities, enabling it to borrow an aggregate amount at least equal to the principal amount of commercial paper notes outstanding. The District's Water System has two subseries of commercial paper notes under this program: Subseries A-1 (\$199.8 million outstanding) and Subseries A-2 (\$160 million outstanding). The Subseries A-1 Commercial Paper Notes are supported by a liquidity facility from Sumitomo Mitsui Banking Corporation, acting through its New York Branch, expiring on December 1, 2020. The Subseries A-2 Commercial Paper Notes are supported by the Revolving Credit Agreement from BANA expiring on November 30, 2018.

In anticipation of the expiration of the existing BANA liquidity facility, the District and its financial advisor issued an RFP in July 2018 for a new liquidity facility. The District received

nine responses to the RFP. Of the firms submitting proposals, six offered liquidity facilities for the Subseries A-2 Commercial Paper Notes. The other three firms offered alternative proposals (such as refunding commercial paper with other products). Working with the District's financial advisor, staff narrowed the options to four proposals offering three-year liquidity facilities with the lowest annual costs. One of the four firms was BANA, which offered an extension of the existing liquidity facility. Through negotiations with the District and its financial advisor, BANA reduced its annual fee from 32.5 basis points to 30 basis points based on the District's current credit rating.

The transaction costs associated with selection of a liquidity provider are substantially higher for a new liquidity facility with a new bank compared with extending the existing Revolving Credit Agreement. The additional costs include bond counsel and bank counsel fees to draft new legal documents, along with higher financial advisor and rating agency fees. The District's financial advisor estimates transaction costs between \$133,000 and \$146,000 for a new liquidity facility compared with \$40,500 for an extension of the BANA agreement. In comparing the proposals, these transaction costs were spread across the three years the new agreement will likely be in place. Two banks provided proposals for three-year facilities covering the full \$160 million at an annual commitment fee lower than that of BANA (28.5 basis points and 29 basis points). However, after incorporating the higher transaction costs, BANA's all-in per annum cost is estimated to be the lowest of the three. A fourth bank provided a lower commitment fee but agreed to only cover half of the \$160 million in liquidity support required.

The BANA extension provides a reduction in the annual cost of liquidity support for the Subseries A-2 Commercial Paper Notes over the current agreement. The extension also offers lower transaction costs compared with establishing a new liquidity facility. When incorporating these transaction costs, the extension of the BANA liquidity Revolving Credit Agreement represents the most cost-effective approach compared with other proposals to cover the full \$160 million in the Subseries A-2 Commercial Paper Notes.

A summary of the key documents is as follows:

- First Amendment to the Revolving Credit Agreement amends the Revolving Credit Agreement entered into by the District and BANA for the Subseries A-2 Commercial Paper Notes in December 2015. The Revolving Credit Agreement provides the terms and conditions under which BANA provides liquidity support for the Subseries A-2 Commercial Paper Notes by agreeing to make available a \$160 million revolving line of credit. The First Amendment to the Revolving Credit Agreement provides for the extension of the stated expiration date of the Revolving Credit Agreement for approximately three years (to November 2021).
- Fee Agreement replaces the original fee agreement previously entered into by the District with BANA. This document provides the various fees the District will pay the bank under the Revolving Credit Agreement. The Fee Agreement provides fees to be charged during

Extend Revolving Credit Agreement for Commercial Paper Notes

Finance/Administration Committee

October 18, 2018

Page 3

the extended term of the Revolving Credit Agreement, including the annual commitment fee (subject to maintenance of the District's current credit ratings) of 30 basis points or approximately \$480,000 annually for the Subseries A-2 Commercial Paper Notes. In the original 2015 Fee Agreement related to the 2015 Revolving Credit Agreement, the annual commitment fee was 32.5 basis points or approximately \$520,000 annually.

NEXT STEPS

The amendment and related fee agreement with BANA will be presented to the Board for consideration at its regular meeting on October 23, 2018.

SDS:RLH

Attachments

I:\Sec\2018 Board Related Items\Committees 2018\102318 Finance Ctte\FIN - Ctte Item Extend Revolving Credit Agreement 102318.doc

**FIRST AMENDMENT TO
REVOLVING CREDIT AGREEMENT**

BETWEEN

EAST BAY MUNICIPAL UTILITY DISTRICT

AND

BANK OF AMERICA, N. A

DATED: OCTOBER 31, 2018

relating to

**EAST BAY MUNICIPAL UTILITY DISTRICT
COMMERCIAL PAPER NOTES (WATER SERIES) TAX-EXEMPT SUBSERIES A-2**

FIRST AMENDMENT TO REVOLVING CREDIT AGREEMENT

This **FIRST AMENDMENT to REVOLVING CREDIT AGREEMENT**, dated October 31, 2018 (this “*Amendment*”), is between the EAST BAY MUNICIPAL UTILITY DISTRICT (the “*District*”) and BANK OF AMERICA, N.A. (the “*Bank*”). Terms used herein with initial capital letters and not otherwise defined shall have the respective meanings attributed thereto in the Agreement (as defined below).

RECITALS

WHEREAS, the District and the Bank entered into the Revolving Credit Agreement, dated as of December 1, 2015 (the “*Original Agreement*”) and a Fee Agreement dated December 2, 2015 (the “*2015 Fee Agreement*”) pursuant to which the Bank agreed to provide liquidity support for the District’s Commercial Paper Notes (Water Series) Tax-Exempt Subseries A-2 (the “*Commercial Paper Notes*”), and such liquidity support under the Original Agreement is evidenced by the Revolving Loan Note and the Term Loan Note; and

WHEREAS, the Stated Expiration Date of the Original Agreement is currently November 30, 2018, and the District has requested that the Bank extend the term of the Original Agreement; and

WHEREAS, the Bank has agreed to extend the term of the Original Agreement on the terms and conditions set forth in this Amendment; and

WHEREAS, the District and the Bank now desire to, among other things, (i) extend the Stated Expiration Date of the Agreement from November 30, 2018 to November 30, 2021, (ii) make certain additional amendments to the Original Agreement, and (iii) execute a new fee agreement to document certain pricing changes (the “*New Fee Agreement*”); and

NOW, THEREFORE, in consideration of the respective agreements contained herein and in the Original Agreement, and intending to be legally bound, the District and the Bank hereby agree as follows.

ARTICLE I. INTENTION OF PARTIES, AGREEMENT PROVISIONS.

The District and the Bank have entered into this Amendment and the New Fee Agreement to, among other things, extend the Stated Expiration Date and change other terms set forth in the Original Agreement to, among other things, extend the Stated Expiration Date and amend other terms set forth in the Original Agreement and to reflect the delivery of the New Fee Agreement to replace the 2015 Fee Agreement. The terms of the Original Agreement, as amended by this Amendment (as so amended, the “*Agreement*”), shall govern the rights and obligations of the District, and the Bank in connection with the transactions contemplated by the Agreement. The Bank and the District hereby agree that no amendments are needed with respect to the Revolving Loan Note and the Term Loan Note.

ARTICLE II. AMENDMENTS. The Original Agreement is hereby amended as follows:

- (a) The definition of “Fee Agreement” in Section 1.1 of the Original Agreement is hereby amended by deleting it in its entirety and replacing it with the following:

“ ‘Fee Agreement’ means that certain Fee Agreement dated the First Amendment Effective Date, between the District and the Bank, as amended, supplemented, restated or otherwise modified from time to time in accordance with the terms hereof and thereof.”

- (b) The defined term “Stated Expiration Date” in Section 1.1 of the Original Agreement is hereby amended by deleting “November 30, 2018” therein and replacing it with “November 30, 2021”.

- (c) There is hereby added to Section 1.1 of the Original Agreement each of the following definitions, each of which is to be situated alphabetically:

“ ‘First Amendment’ means that certain First Amendment to Revolving Credit Agreement, dated October 31, 2018, between the District and the Bank.”

“ ‘First Amendment Effective Date’ means October 31, 2018.”

- (d) Section 3.2(c) of the Original Agreement is hereby amended as follows:

- i. By deleting “thirty (30)” and replacing it with “sixty (60)”; and
- ii. By adding the following sentence at the end thereof: “The Bank hereby agrees that it shall provide the District with such certificate within ninety (90) days of obtaining knowledge of the increased costs.”

- (e) Section 9.3 is hereby amended by deleting the information regarding the Bank after “With a copy to:” and replacing it with the following:

“Bank of America, N.A
WA1-501-34-03
800 5th Ave
Seattle, WA 98104
Attention: Satinder Parwana
Telephone: 206-358-6055
Email: satinder.parwana@baml.com”

ARTICLE III. CONDITIONS TO DELIVERY OF THIS AMENDMENT.

The amendments to the Original Agreement provided for in Article II hereof shall become effective on the First Amendment Effective Date; *provided* that each of the following conditions shall be fulfilled to the satisfaction of the Bank:

(a) **Documentation:**

- (i) An executed counterpart of this Amendment, each signed by the District and the Bank;
- (ii) Opinion of Counsel to the District regarding due authorization and execution of this Amendment in form and substance acceptable to the Bank;
- (iii) The District shall have paid or made arrangements for payment of all costs and expenses incurred by the Bank in connection with this transaction, including without limitation reasonable attorney's fees; provided, that the District shall pay the Bank's attorney's fees (which shall not exceed \$7,500) within 30 days following its receipt of an invoice from such counsel; and
- (iv) All other legal matters pertaining to the execution and delivery of this Amendment shall be satisfactory to the Bank and the execution and delivery hereof by the Bank shall constitute conclusive evidence that all such legal matters have been completed to the satisfaction of the Bank.

(b) **Representations and Warranties True.**

(i) The representations and warranties of the District contained in Article V of the Original Agreement and in this Amendment shall be true and correct with the same effect as though made on and as of the First Amendment Effective Date, except to the extent a representation or warranty relates specifically to an earlier date (in which case, such representation and warranty shall be true and correct as of such date) and except that the representations in Section 5.8 of the Original Agreement refers to the District's 2017 financial statements (instead of the 2015 financial statements) which has been previously provided to the Bank.

(ii) In addition to the foregoing representations, the District hereby represents and warrants as follows:

(A) The execution, delivery and performance by the District of this Amendment are within their powers, have been duly authorized by all necessary actions and do not contravene any law or any contractual restriction binding on or affecting the District;

(B) No further authorization, approval or other action by, and no notice to or filing, is required for the due execution, delivery and performance by the

District of this Amendment that has not been received as of the First Amendment Effective Date;

(C) The District will provide, or will cause to have provided, (i) written notice of this Amendment, together with an updated Exhibit F to the Issuing and Paying Agent Agreement reflecting the extension of the Stated Expiration Date of the Agreement, to the Issuing and Paying Agent and (ii) notice of the extension of the Stated Expiration Date of the Agreement, together with an executed copy of this Amendment, to the Rating Agencies; and

(D) The Agreement (as amended by this Amendment) constitute the legal, valid and binding obligation of the District enforceable against the District in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally, by general equitable principles (regardless of whether such enforceability is considered in a proceeding in equity or at law) and by limitations on legal remedies against public agencies in the State.

(c) Absence of Certain Events. (i) There shall not have occurred any material adverse change in the affairs, condition and/or operations, financial or otherwise, of the District since the date of the most recent financial information provided to the Bank pursuant to Section 6.1(a) of the Original Agreement that would impair the ability of the District to perform its obligations under the Agreement; on or prior to the First Amendment Effective Date, no change shall have occurred in any law, rule or regulation or in any interpretation thereof that, in the opinion of the Bank, would make it illegal for the Bank to execute and deliver this Amendment; and (ii) no event has occurred which constitutes an Event of Default under the Original Agreement.

ARTICLE IV. MISCELLANEOUS.

(a) The parties hereto acknowledge and confirm that, from and after the First Amendment Effective Date, any reference in the Original Agreement or in the other Related Documents to the "Agreement" shall mean and refer to the Original Agreement as amended hereby.

(b) Except as provided herein, the Original Agreement shall remain in full force and effect and unaffected hereby except, as set forth herein, from and after the First Amendment Effective Date.

(c) This Amendment and the Original Agreement, as amended hereby, shall be subject to Section 9.6 and Section 9.9 of the Agreement. In case any one or more of the provisions contained herein should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired hereby.

(d) This Amendment may be executed in one or more counterparts, each of which taken together shall constitute one original and all of which shall constitute one and the same instrument.

[Remainder of page intentionally left blank; signature pages to follow.]

IN WITNESS WHEREOF, the parties have duly executed this Amendment as of the day and year first above written.

EAST BAY MUNICIPAL UTILITY DISTRICT

By: _____

Name: Sophia D. Skoda

Title: Director of Finance

BANK OF AMERICA, N.A.

By: _____

Name: Grace Barvin

Title: Senior Vice President

FEE AGREEMENT

October 31, 2018

Reference is hereby made to that certain Revolving Credit Agreement dated as of December 1, 2015, as amended by that certain First Amendment to Revolving Credit Agreement dated October 31, 2018 (as further amended, supplemented, restated or otherwise modified from time to time, the “*Agreement*”), between the East Bay Municipal Utility District (the “*District*”) and Bank of America, N.A. (the “*Bank*”), relating to the District’s Commercial Paper Notes (Water Series) Tax-Exempt Subseries A-2. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Agreement.

The purpose of this Fee Agreement is to replace the Fee Agreement dated December 2, 2015 between the Bank and the District (the “*2015 Fee Agreement*”) and to confirm the agreement between the Bank and the District with respect to the Commitment Fees (as defined below) and certain other fees payable by the District to the Bank. This Fee Agreement is the Fee Agreement referenced in the Agreement, and the terms hereof are incorporated by reference into the Agreement.

ARTICLE I. FEES.

Section 1.1. Commitment Fee. The District hereby agrees to pay or cause to be paid to the Bank a non-refundable Commitment Fee (the “*Commitment Fee*”) with respect to the Available Commitment of the Bank under the Agreement in an amount equal to the rate per annum (the “*Commitment Fee Rate*”) specified below on the average daily Available Commitment from time to time in effect during each related period.

LEVEL	S&P RATING	MOODY’S RATING	FITCH RATING	COMMITMENT FEE RATE
Level 1:	AA or higher	Aa2 or higher	AA or higher	0.30%
Level 2:	AA-	Aa3	AA-	0.45%
Level 3:	A+	A1	A+	0.60%
Level 4:	A	A2	A	0.75%
Level 5:	A-	A3	A-	0.95%
Level 6:	BBB+	Baa1	BBB+	1.15%
Level 7:	BBB	Baa2	BBB	1.45%
Level 8:	BBB-	Baa3	BBB-	1.85%

The term “*Rating*” as used above shall mean the lowest long-term unenhanced debt rating assigned by each Rating Agency to any outstanding Water Bond. In the event of a split rating (*i.e.*, the Rating of one of the foregoing Rating Agencies is at a different Level than the Rating of any other Rating Agency), the Commitment Fee Rate shall be based upon the Level in which the lower of the two highest Ratings appears; *provided, however*, that if only two Rating Agencies

are then rating Water Bonds, the Commitment Fee Rate shall be based upon the Level in which the lower of the two Ratings appears; *provided, further*, that, for purposes of this sentence only, any Rating that appears in a higher numbered Level than the Level in which a Rating of another Rating Agency appears shall be deemed to be a “lower” Rating for purposes of determining the Commitment Fee Rate. Any change in the Commitment Fee Rate resulting from a change in a Rating shall be and become effective as of and on the date of the announcement of the change in a Rating. References to Ratings above are references to rating categories as presently determined by the Rating Agencies, and in the event of adoption of any new or changed rating system by any such Rating Agency, including, without limitation, any recalibration of the Ratings in connection with the adoption of a “global” rating scale, each of the Ratings from the Rating Agency in question referred to above shall be deemed to refer to the rating category under the new rating system which most closely approximates the applicable rating category as currently in effect. The District and the Bank acknowledge that as of the First Amendment Effective Date the Commitment Fee Rate is that specified above for Level 1. In the event that either (i) a Rating is suspended, withdrawn or otherwise unavailable from any Rating Agency for credit related reasons or (ii) there shall have occurred and be continuing any Event of Default, in each such case the Commitment Fee Rate shall increase by 1.50% per annum from the Commitment Fee Rate in effect on the date of the occurrence of such suspension, withdrawal, unavailability or Event of Default, as applicable (the “*Fee Increase*”); *provided, however*, that the Fee Increase shall not occur pursuant to clause (i) of this sentence if any such rating shall have been suspended or withdrawn by or becomes otherwise unavailable from a Rating Agency due to (a) the District’s failure to apply for such rating or failure to provide information to such Rating Agency, in each case as a result of such Rating Agency’s imposition or proposed imposition of conditions to issuing such rating with which the District cannot legally comply or (b) a determination by the District to cease maintaining such rating and following such withdrawal or suspension the District is in compliance with Section 6.29(iii) of the Agreement. The Commitment Fees shall be payable quarterly in arrears, together with interest on the Commitment Fees from the date payment is due until payment in full at the Default Rate. Such fee shall be payable in immediately available funds and computed on the basis of a 360-day year and the actual number of days elapsed.

In connection with the Commitment Fees payable pursuant to this Section 1.1 for any fee period, the Bank hereby agrees to use its best efforts to deliver an invoice to the District for such Commitment Fees at least thirty (30) days in advance of the payment due date; *provided, however*, that the failure to provide any such invoice shall not limit or otherwise affect the obligation of the District to pay such Commitment Fees when due.

The Commitment Fee shall be payable in immediately available funds quarterly in arrears commencing on the first Business Day of January 2019; *provided, however*, that in connection with the payment due on the first Business Day of January 2019, the Commitment Fee shall be computed as follows: (X) at a rate equal to 0.325% per annum for the period from and including October 1, 2018 to but not including the First Amendment Effective Date (subject to any adjustments as set forth in the 2015 Fee Agreement), and (Y) at a rate equal to 0.30% per annum for the period from and including the First Amendment Effective Date through and including December 31, 2018; and, thereafter, on the first Business Day of each subsequent January, April, July and October and thereafter to the Commitment Termination Date, and on the Commitment Termination Date, in all cases, covering the period from the date of the immediately preceding

payment to such Business Day. The Bank's determination of the Commitment Fee pursuant hereto shall be conclusive absent manifest error.

Section 1.2. Loan Fees. Upon the making of each Loan, the District agrees to pay to the Bank a non-refundable Loan fee equal to \$250, payable without any requirement of notice or demand by the Bank on the day on which such Loan is made by the Bank.

Section 1.3. Transfer Fee. Upon each transfer of the Agreement by the District in accordance with its terms or appointment of a successor Issuing and Paying Agent under the Issuing and Paying Agent Agreement, the District agrees to pay the Bank a non-refundable fee of \$2,500, and to reimburse the Bank for its actual costs and expenses associated with such transfer or appointment (including, without limitation, the reasonable fees and expenses of counsel to the Bank), payable on the date of such transfer or appointment.

Section 1.4. Amendment Fee. The District agrees to pay to the Bank on the date of each amendment, supplement, or modification to the Agreement (or any Related Document, the amendment, supplement or modification of which requires the consent of the Bank), a non-refundable fee equal to \$2,500, or such other fee as may be agreed to between the District and the Bank, plus, in each case, the reasonable fees and expenses of counsel to the Bank.

Section 1.5. Termination Fee. (a) Notwithstanding anything set forth herein or in the Agreement to the contrary, the District hereby agrees not to terminate the Agreement prior to the first anniversary of the First Amendment Effective Date, without the payment by the District to the Bank of a termination fee (the "*Termination Fee*") in an amount equal to the product of (i) the Commitment Fee Rate in effect pursuant to Section 1.1 hereof on the date of such termination, (ii) the Available Commitment in effect on the First Amendment Effective Date, and (iii) a fraction, the numerator of which is equal to the number of days from and including the date of such termination to and including the first anniversary of the First Amendment Effective Date, and the denominator of which is 360. Notwithstanding any provisions of this Section to the contrary, the District will not be required to pay the Termination Fee if (i) any two of Moody's, S&P or Fitch shall have withdrawn or suspended the short-term credit rating of the Bank for credit related reasons or lowered the short-term credit rating of the Bank below "*P-1*," "*A-1*" and "*F1*," respectively, and thereafter for so long as such withdrawal, suspension or reduction shall be continuing, (ii) the Bank submits to the District a request for payment of amounts payable pursuant to Section 3.2 of the Agreement or (iii) the District elects to refinance the Commercial Paper Notes in full from a source of funds which does not involve the issuance by a bank or other financial institution of a letter of credit, liquidity facility, or credit facility or a direct purchase of such debt by a bank or other financial institution.

(b) Notwithstanding the foregoing and anything set forth herein or in the Agreement to the contrary, the District agrees not to permanently reduce the Available Commitment under the Agreement prior to the first anniversary of the First Amendment Effective Date, without the payment by the District to the Bank of a reduction fee (the "*Reduction Fee*") in connection with each and every permanent reduction of the Available Commitment as set forth herein in an amount equal to the product of (A) the Commitment Fee Rate in effect on the date of such reduction, (B) the difference between the Commitment prior to such reduction and the Commitment after such reduction, and (C) a fraction, the numerator of which is equal to the

number of days from and including the date of such reduction to and including the first anniversary of the First Amendment Effective Date, and the denominator of which is 360. Notwithstanding any provisions of this Section to the contrary, the District will not be required to pay the Reduction Fee if (i) any two of Moody's, S&P or Fitch shall have withdrawn the short-term credit rating of the Bank or lowered the short-term credit rating of the Bank below "P-1," "A-1" and "F1," respectively, and thereafter for so long as such withdrawal or reduction shall be continuing, (ii) the Bank submits to the District a request for payment of amounts payable pursuant to Section 3.2 of the Agreement or (iii) the District elects to refinance Commercial Paper Notes in an amount equivalent to the amount of such reduction from a source of funds which does not involve the issuance by a bank or other financial institution of a letter of credit, liquidity facility, or credit facility or a direct purchase of such debt by a bank or other financial institution.

ARTICLE II. MISCELLANEOUS.

Section 2.1. Out-of-Pocket Expenses. The District shall pay to the Bank promptly upon receipt of invoice any and all reasonable fees and expenses of the Bank (including the out-of-pocket expenses of the Bank and the reasonable fees and disbursements of counsel to the Bank) all payable in accordance with this Fee Agreement and Section 9.2(a) of the Agreement.

Section 2.2. Payment Account. As provided in the Agreement, all payments hereunder shall be made by means of wire transfer of funds to the Bank's Payment Account.

Section 2.3. Amendments. No amendment to this Fee Agreement shall become effective without the prior written consent of the District and the Bank.

Section 2.4. Governing Law. THIS FEE AGREEMENT SHALL BE DEEMED TO BE A CONTRACT MADE UNDER AND SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK WITHOUT GIVING EFFECT TO CONFLICTS OF LAWS PROVISIONS (OTHER THAN NEW YORK GENERAL OBLIGATIONS LAWS 5-1401 AND 5-1402); PROVIDED THAT THE POWER AND AUTHORITY OF THE DISTRICT TO ENTER INTO AND ITS RIGHTS AND OBLIGATIONS UNDER THIS FEE AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF CALIFORNIA.

Section 2.5. Counterparts. This Fee Agreement may be executed in two or more counterparts, each of which shall constitute an original but both or all of which, when taken together, shall constitute but one instrument. Delivery of a counterpart hereof by facsimile transmission or by e-mail transmission of an Adobe portable document file (also known as a "PDF" file) shall be effective as delivery of an original executed counterpart hereof.

Section 2.6. Severability. Any provision of this Fee Agreement which is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition, unenforceability or non-authorization without invalidating the remaining provisions hereof or affecting the validity, enforceability or legality of such provision in any other jurisdiction.

Section 2.7. 2015 Fee Agreement Replacement. For the avoidance of doubt, this Fee Agreement replaces in its entirety that certain Fee Agreement dated December 2, 2015 between the Bank and the District, and the parties hereby agree and confirm that the such fee letter is no longer in force and effect.

[SIGNATURES BEGIN ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties hereto have caused this Fee Agreement to be duly executed and delivered by their respective officers thereunto duly authorized on the date first set forth above.

EAST BAY MUNICIPAL UTILITY DISTRICT

By: _____

Name: Sophia D. Skoda

Title: Director of Finance

BANK OF AMERICA, N.A .

By: _____

Name: Grace Barvin

Title: Senior Vice President

Signature Page to Fee Agreement

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ANC*

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Monthly Investment Transactions Report

SUMMARY

In accordance with Board Resolution No. 30127 and Policy 4.07 – Investment Policy, staff presents a monthly transactions report for the Finance/Administration Committee to review and for the Board to consider each month. The September 2018 report is being submitted for Board consideration. This item will be reviewed by the Finance/Administration Committee on October 23, 2018.

DISCUSSION

Pursuant to Policy 4.07 – Investment Policy, staff produces a monthly report of investment transactions generated by Treasury staff (buys, sales, deposits, withdrawals) as well as transactions that occur as a feature of the securities held (interest, calls, maturities). Information on portfolio performance, balances, and other factors are presented in the quarterly investment report.

In September 2018, the portfolio increased from \$657.9 million to \$669.9 million. Net transactions increased the total by \$11.7 million and interest received added \$0.3 million. Deposits into short-term liquidity funds totaled \$57.7 million and \$29.4 million was withdrawn. The District purchased \$0.3 million in securities and \$8.9 million in securities matured. No securities were sold or called. Net transactions at the District's commercial bank resulted in a decrease of \$8.0 million.

This item supports the District's Long-Term Financial Stability Strategic Plan goal to ensure integrity, accountability and transparency in financial management.

ARC:SDS:RLH

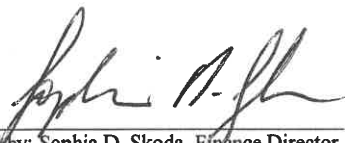
Attachment

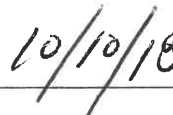
Monthly Investment Transactions Report
September 2018

This report is presented to the Board pursuant to Government Code Section 53607 and in accordance with the District's Investment Policy 4.07.

The attached report details transactions in the District's portfolio as follows:

- **Monthly Investment Transactions Summary** **Page 1**
- **Monthly Investment Activity** **Page 2**
 - Buys **Page 3**
 - Deposits **Page 4**
 - Matured **Page 5**
 - Calls **Page 6**
 - Sales **Page 7**
 - Withdrawals **Page 8**
- **Monthly Interest Activity** **Page 9**
 - Interest Received (Transferred to Wells Fargo) **Page 10**
 - Interest Received (Reinvested) **Page 11**


Approved by: Sophia D. Skoda, Finance Director


Date

SDS:DSK:MH



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Transactions Summary
September 2018

Portfolio	Beginning Balance*	Monthly Net Transaction Activity	Monthly Interest Activity	Ending Balance
001 - Water System Consolidated	500,657,579.08	19,336,000.00	91,765.52	520,085,344.60
007 - Wastewater Consolidated	107,613,170.26	2,075,000.00	39,196.69	109,727,366.95
049 - Ferc Partnership	2,000,000.00	-	-	2,000,000.00
009 - BACWA	3,027,600.00	-	-	3,027,600.00
015 - DERWA	-	-	-	-
002 - FRWA	2,150,000.00	-	-	2,150,000.00
014 - IICP	150,500.00	-	-	150,500.00
010 - UMRWA	64,000.00	-	-	64,000.00
003 - Employees Retirement	5,098,846.55	(1,671,000.00)	-	3,427,846.55
065 - Water S2008A DSRF	3,318,104.74	-	4,233.33	3,322,338.07
068 - Water 2010A DSRF	344,309.82	-	439.28	344,749.10
099 - Wells Fargo**	33,496,952.73	(8,048,462.15)	114,721.30	25,563,211.88
Total	657,921,063.18	11,691,537.85	250,356.12	669,862,957.15

* Portfolio balance presented at face value.

**Wells Fargo's month-end available balance per bank statement. Gross amount; not allocated by fund and not included in balances above.

Mark Han
 Prepared by: Matt Houck, Accounting Technician
Sandy Lindley
 Reviewed by: Sandy Lindley, Accounting Supervisor
D. Scott Klein
 Approved by: D. Scott Klein, Controller



10-9-2018
 Date
10/9/18
 Date
10-9-18
 Date



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio	Buys	Deposits	Matured	Calls	Sales	Withdrawals	Non-Investment Transactions*	Net Transaction Activity
001 - Water System Consolidated	-	45,000,000.00	(5,664,000.00)	-	-	(20,000,000.00)	-	19,336,000.00
007 - Wastewater Consolidated	275,000.00	5,000,000.00	(3,200,000.00)	-	-	-	-	2,075,000.00
049 - Ferc Partnership	-	-	-	-	-	-	-	-
009 - BACWA	-	-	-	-	-	-	-	-
015 - DERWA	-	-	-	-	-	-	-	-
002 - FRWA	-	-	-	-	-	-	-	-
014 - IICP	-	-	-	-	-	-	-	-
010 - UMRWA	-	-	-	-	-	-	-	-
003 - Employees Retirement	-	7,709,000.00	-	-	-	-	-	-
065 - Water S2008A DSRF	-	-	-	-	-	(9,380,000.00)	-	(1,671,000.00)
068 - Water 2010A DSRF	-	-	-	-	-	-	-	-
Investment Activity Total	275,000.00	57,709,000.00	(8,864,000.00)	-	-	(29,380,000.00)	-	19,740,000.00
099 - Wells Fargo	(275,000.00)	(57,709,000.00)	8,864,000.00	-	-	29,380,000.00	11,691,537.85	(8,048,462.15)
Total	-	-	-	-	-	-	11,691,537.85	11,691,537.85

*Non-investment transactions are net receipts and expenditures in Wells Fargo resulting from activities other than investment and interest transactions detailed in this report.

 Reviewed by: Damien Charley, Principal Mgmt Analyst Date: 10/10/18	 Approved by: Robert L. Hannay, Treasury Manager Date: 10/10/18
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EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Buys										
007 - Wastewater Consolidated	Municipal Bonds	California St 6.2 10/1/2019-09	13063A7G3	09/24/2018	09/26/2018	10/01/2019	275,000.00	284,075.00	8,288.19	292,363.19
								275,000.00	284,075.00	8,288.19
									8,288.19	292,363.19



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Deposits										
001 - Water System Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/06/2018	09/06/2018	N/A	10,000,000.00	10,000,000.00	0.00	10,000,000.00
001 - Water System Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/12/2018	09/12/2018	N/A	10,000,000.00	10,000,000.00	0.00	10,000,000.00
001 - Water System Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/28/2018	09/28/2018	N/A	25,000,000.00	25,000,000.00	0.00	25,000,000.00
					Sub Total		45,000,000.00			
003 - Employees Retirement	LAIF Local Government Investment Pool	LAIF LGIP	LGIP1005	09/07/2018	09/07/2018	N/A	3,849,000.00	3,849,000.00	0.00	3,849,000.00
003 - Employees Retirement	LAIF Local Government Investment Pool	LAIF LGIP	LGIP1005	09/20/2018	09/20/2018	N/A	3,860,000.00	3,860,000.00	0.00	3,860,000.00
					Sub Total		7,709,000.00			
007 - Wastewater Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/12/2018	09/12/2018	N/A	5,000,000.00	5,000,000.00	0.00	5,000,000.00
					Sub Total		5,000,000.00			
							57,709,000.00	57,709,000.00	0.00	57,709,000.00



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Matured										
001 - Water System Consolidated	Municipal Bonds	Los Angeles County Redevelopment 1 9/1/2018	54465AGJ5	09/01/2018	09/01/2018	09/01/2018	3,250,000.00	3,250,000.00	0.00	3,250,000.00
001 - Water System Consolidated	Municipal Bonds	Successor Agency to the Redevelopment Agency of th	79730WBF6	09/01/2018	09/01/2018	09/01/2018	2,000,000.00	2,000,000.00	0.00	2,000,000.00
001 - Water System Consolidated	Municipal Bonds	Yorba Linda Redevelopment Agency Successor Agency	986176AM7	09/01/2018	09/01/2018	09/01/2018	295,000.00	295,000.00	0.00	295,000.00
001 - Water System Consolidated	Federal Agency/Issues Coupon	FAMC 1.14 9/4/2018	3132X0B77	09/04/2018	09/04/2018	09/04/2018	119,000.00	119,000.00	0.00	119,000.00
					Sub Total		5,664,000.00			
007 - Wastewater Consolidated	Municipal Bonds	Los Angeles County Redevelopment 1 9/1/2018	54465AGJ5	09/01/2018	09/01/2018	09/01/2018	2,000,000.00	2,000,000.00	0.00	2,000,000.00
007 - Wastewater Consolidated	Municipal Bonds	Palm Springs CA Cmnty Redevelopment Agency Success	69667ABP0	09/01/2018	09/01/2018	09/01/2018	100,000.00	100,000.00	0.00	100,000.00
007 - Wastewater Consolidated	Federal Agency/Issues Coupon	FAMC 1.875 9/5/2018	31315P2G3	09/05/2018	09/05/2018	09/05/2018	500,000.00	500,000.00	0.00	500,000.00
007 - Wastewater Consolidated	Federal Agency/Issues Coupon	FAMC 1.55 9/6/2018	31315PQC6	09/06/2018	09/06/2018	09/06/2018	500,000.00	500,000.00	0.00	500,000.00
007 - Wastewater Consolidated	Federal Agency/Issues Coupon	FHLB 1.125 9/20/2018-13	313382DS9	09/20/2018	09/20/2018	09/20/2018	100,000.00	100,000.00	0.00	100,000.00
					Sub Total		3,200,000.00			
							8,864,000.00	8,864,000.00	0.00	8,864,000.00



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Calls										

*No Transaction this Period

0.00	0.00	0.00	0.00
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EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Amount/Share	Face	Principal	Interest/ Dividends	Total
Sales											

*No Transaction this Period

0.00	0.00	0.00	0.00
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EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Withdrawals										
001 - Water System Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/21/2018	09/21/2018	N/A	20,000,000.00	20,000,000.00	0.00	20,000,000.00
003 - Employees Retirement	LAIF Local Government Investment Pool	LAIF LGIP	LGIP1005	09/28/2018	09/28/2018	N/A	9,380,000.00	9,380,000.00	0.00	9,380,000.00
							29,380,000.00	29,380,000.00	0.00	29,380,000.00



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Interest Activity
September 2018

Portfolio	Total Interest Received	Interest Transferred to Wells Fargo*	Net Interest Activity (Reinvested)**
001 - Water System Consolidated	176,430.57	(84,665.05)	91,765.52
007 - Wastewater Consolidated	69,252.94	(30,056.25)	39,196.69
049 - Ferc Partnership	-	-	-
009 - BACWA	-	-	-
015 - DERWA	-	-	-
002 - FRWA	-	-	-
014 - IICP	-	-	-
010 - UMRWA	-	-	-
003 - Employees Retirement	-	-	-
065 - Water S2008A DSRF	4,233.33	-	4,233.33
068 - Water 2010A DSRF	439.28	-	439.28
Interest Transactions Total	250,356.12	(114,721.30)	135,634.82
099 - Wells Fargo	-	114,721.30	114,721.30
Total	250,356.12	-	250,356.12

*Coupon and other interest received; reinvestment unavailable.

**Coupon and other interest payments reinvested in specific portfolio.

Prepared by: Matt Houck, Accounting Technician
Reviewed by: Sandy Lindley, Accounting Supervisor
Approved by: D. Scott Klein, Controller

10-9-2018
 Date
10/9/18
 Date
10-9-18
 Date



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Interest Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Amount/Shares	Face Principal	Interest/Dividends	Total
Interest Received (Transferred to Wells Fargo)										
001 - Water System Consolidated	Municipal Bonds	Alameda County Improvement Commission Successor Ag	010775BA1	09/01/2018	09/01/2018	09/01/2020	0.00	0.00	2,250.00	2,250.00
001 - Water System Consolidated	Municipal Bonds	Los Angeles County Redevelopment 1 9/1/2018	54465AGJ5	09/01/2018	09/01/2018	09/01/2018	0.00	0.00	16,250.00	16,250.00
001 - Water System Consolidated	Municipal Bonds	Santa Cruz County Redevelopment Successor Agency 1	80182YC08	09/01/2018	09/01/2018	09/01/2019	0.00	0.00	3,823.75	3,823.75
001 - Water System Consolidated	Municipal Bonds	Santa Cruz County Redevelopment Successor Agency 2	80182YCR6	09/01/2018	09/01/2018	09/01/2020	0.00	0.00	7,638.00	7,638.00
001 - Water System Consolidated	Municipal Bonds	Successor Agency to the Redevelopment Agency of th	79730WBF6	09/01/2018	09/01/2018	09/01/2018	0.00	0.00	12,500.00	12,500.00
001 - Water System Consolidated	Municipal Bonds	Yorba Linda Redevelopment Agency Successor Agency	986176AM7	09/01/2018	09/01/2018	09/01/2018	0.00	0.00	2,212.50	2,212.50
001 - Water System Consolidated	Municipal Bonds	Yorba Linda Redevelopment Agency Successor Agency	986176AP0	09/01/2018	09/01/2018	09/01/2022	0.00	0.00	2,056.25	2,056.25
001 - Water System Consolidated	Municipal Bonds	Yorba Linda Redevelopment Agency Successor Agency	986176AR6	09/01/2018	09/01/2018	09/01/2018	0.00	0.00	4,106.25	4,106.25
001 - Water System Consolidated	Federal Agency Issues Coupon	FAMC 1.14 9/4/2018	3132X0BT7	09/04/2018	09/04/2018	09/04/2018	0.00	0.00	678.30	678.30
001 - Water System Consolidated	Federal Agency Issues Coupon	FHLMC 1.5 9/9/2019-18	3134GA7A6	09/09/2018	09/09/2018	09/09/2019	0.00	0.00	3,150.00	3,150.00
001 - Water System Consolidated	Federal Agency Issues Coupon	FHLMC Step 9/23/2021-16	3134GAHM9	09/23/2018	09/23/2018	09/23/2021	0.00	0.00	30,000.00	30,000.00
Sub Total								84,665.05		
007 - Wastewater Consolidated	Municipal Bonds	Lake Elsinore Redevelopment Agency Successor Agency	86459ABQ4	09/01/2018	09/01/2018	03/01/2019	0.00	0.00	1,006.25	1,006.25
007 - Wastewater Consolidated	Municipal Bonds	Los Angeles County Redevelopment 1 9/1/2018	54465AGJ5	09/01/2018	09/01/2018	09/01/2018	0.00	0.00	10,000.00	10,000.00
007 - Wastewater Consolidated	Municipal Bonds	Palm Springs CA Cmnty Redevelopment Agency Success	69657ABR6	09/01/2018	09/01/2018	09/01/2020	0.00	0.00	2,850.00	2,850.00
007 - Wastewater Consolidated	Municipal Bonds	Palm Springs CA Cmnty Redevelopment Agency Success	69657ABP0	09/01/2018	09/01/2018	09/01/2018	0.00	0.00	750.00	750.00
007 - Wastewater Consolidated	Municipal Bonds	Palm Springs CA Cmnty Redevelopment Agency Success	69657ABS4	09/01/2018	09/01/2018	09/01/2021	0.00	0.00	1,350.00	1,350.00
007 - Wastewater Consolidated	Municipal Bonds	Successor Agency to the Redevelopment Agency of th	79730WBG4	09/01/2018	09/01/2018	09/01/2019	0.00	0.00	4,225.00	4,225.00
007 - Wastewater Consolidated	Federal Agency Issues Coupon	FAMC 1.875 9/5/2018	3131SPZG3	09/05/2018	09/05/2018	09/05/2018	0.00	0.00	4,687.50	4,687.50
007 - Wastewater Consolidated	Federal Agency Issues Coupon	FAMC 1.55 9/6/2018	3131SPQC6	09/06/2018	09/06/2018	09/06/2018	0.00	0.00	3,875.00	3,875.00
007 - Wastewater Consolidated	Federal Agency Issues Coupon	FHLB 1.125 9/20/2018-13	313382DS9	09/20/2018	09/20/2018	09/20/2018	0.00	0.00	562.50	562.50
007 - Wastewater Consolidated	Federal Agency Issues Coupon	FAMC 1.5 5/15/2019	3132X0QX2	09/21/2018	09/21/2018	05/15/2019	0.00	0.00	750.00	750.00
Sub Total								30,056.25		

0.00 0.00 114,721.30 114,721.30



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Interest Activity
September 2018

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Amount/Shares	Face Principal	Interest/Dividends	Total
Interest Received (Reinvested)										
001 - Water System Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/30/2018	09/30/2018	N/A	0.00	0.00	91,732.26	91,732.26
001 - Water System Consolidated	Money Market Mutual Funds	Federated MM	MM3767	09/30/2018	09/30/2018	N/A	0.00	0.00	33.26	33.26
007 - Wastewater Consolidated	CAMP CA Asset Mgmt Program	CAMP MM	CAMP6035	09/30/2018	09/30/2018	N/A	0.00	0.00	39,187.80	39,187.80
007 - Wastewater Consolidated	Money Market Mutual Funds	Federated MM	MM3767	09/30/2018	09/30/2018	N/A	0.00	0.00	8.89	8.89
065 - Water S2008A DSRF	Money Market Mutual Funds	Dreyfus MM	MM6999	09/05/2018	09/05/2018	N/A	0.00	0.00	4,233.33	4,233.33
068 - Water 2010A DSRF	Money Market Mutual Funds	Dreyfus MM	MM2642	09/05/2018	09/05/2018	N/A	0.00	0.00	439.28	439.28
								Sub Total		439.28

0.00	0.00	135,634.82	135,634.82
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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Quarterly Payroll, Disbursement and Real Estate Summary Reports for the Water and Wastewater Systems for Quarter Ended September 30, 2018

SUMMARY

File the September 30, 2018 quarterly payroll, disbursement and real estate reports for the Water and Wastewater Systems with the Board. These reports will be reviewed with the Finance/Administration Committee on October 23, 2018.

DISCUSSION

As directed by Resolution Nos. 32834-94 and 32837-94, attached is a record of the payment of demands and real estate transactions covering the quarter July through September. The disposed properties were sold and leased at fair price.

SDS:SK:lc

Attachments

I:\Sec\2018 Board Related Items\Committees 2018\102318 Finance Ctte\FIN - Ctte Item Qtrly Payroll Disbursement, Real Estate Summ Rpts 102318.doc

**EAST BAY MUNICIPAL UTILITY DISTRICT
FIRST FISCAL QUARTERLY PAYROLL AND DISBURSEMENT SUMMARY REPORT**

**PAYROLL SUMMARY
(RESOLUTION NO. 32834-94)**

	July 2018		August 2018		September 2018		QUARTERLY TOTALS	
	WSG	WWG	WSG	WWG	WSG	WWG	WSG	WWG
<i>District Payments</i>								
Gross Pay	\$ 14,302,390	\$ 2,453,004	\$ 14,284,369	\$ 2,412,630	\$ 16,105,502	\$ 2,682,109	\$ 44,692,260	\$ 7,547,743
Retirement	\$ 5,417,242	\$ 931,610	\$ 5,399,822	\$ 926,087	\$ 5,423,002	\$ 930,835	\$ 16,240,066	\$ 2,788,531
FICA	\$ 1,078,429	\$ 185,547	\$ 1,056,360	\$ 180,556	\$ 1,119,921	\$ 189,160	\$ 3,254,711	\$ 555,264
Kaiser	\$ 1,699,631	\$ 280,923	\$ 1,701,335	\$ 280,602	\$ 1,700,738	\$ 279,451	\$ 5,101,703	\$ 840,975
Health-Net	\$ 309,129	\$ 29,568	\$ 307,369	\$ 28,613	\$ 307,368	\$ 28,613	\$ 923,866	\$ 86,793
Blue Cross	\$ 309,531	\$ 33,421	\$ 302,683	\$ 30,681	\$ 300,444	\$ 31,669	\$ 912,658	\$ 95,772
VSP	\$ 29,335	\$ 4,563	\$ 29,178	\$ 4,506	\$ 30,488	\$ 4,740	\$ 89,001	\$ 13,809
Delta Dental	\$ 205,239	\$ 47,800	\$ 230,685	\$ 37,804	\$ 198,506	\$ 21,155	\$ 634,430	\$ 106,760
Life Insurance	\$ 32,698	\$ 5,634	\$ (70,571)	\$ (11,634)	\$ 136,490	\$ 22,629	\$ 98,618	\$ 16,629
LTD	\$ 37,937	\$ 6,441	\$ -	\$ -	\$ 75,668	\$ 12,665	\$ 113,606	\$ 19,107
Unemploy Ins	\$ -	\$ -	\$ 12,102	\$ 47	\$ -	\$ -	\$ 12,102	\$ 47
TOTAL	\$ 23,421,561	\$ 3,978,511	\$ 23,253,332	\$ 3,889,892	\$ 25,398,127	\$ 4,203,027	\$ 72,073,020	\$ 12,071,430

**DISBURSEMENT SUMMARY
(RESOLUTION NO. 32837-94)**

	July 2018		August 2018		September 2018		QUARTERLY TOTALS	
	WSG	WWG	WSG	WWG	WSG	WWG	WSG	WWG
Voucher Payments	\$ 37,714,337	\$ 3,401,037	\$ 26,034,920	\$ 5,213,297	\$ 25,794,157	\$ 4,055,221	\$ 89,543,414	\$ 12,669,555
Customer Refunds	\$ 101,143	\$ -	\$ 97,606	\$ -	\$ 96,491	\$ -	\$ 295,239	\$ -
Electronic payments	\$ 709,801	\$ 4,575	\$ 551,003	\$ 2,500	\$ 1,113,951	\$ 13,533	\$ 2,374,755	\$ 20,608
Peard payments	\$ 922,001	\$ -	\$ 764,544	\$ -	\$ 797,798	\$ -	\$ 2,484,342	\$ -
TOTAL	\$ 39,447,281	\$ 3,405,612	\$ 27,448,073	\$ 5,215,797	\$ 27,802,397	\$ 4,068,754	\$ 94,697,750	\$ 12,690,163

NOTE:

By: 
Sophia D. Skoda, Director of Finance

Date: 10/16/18

By: 
D. Scott Klein, Controller

Date: 10-10-18

REAL ESTATE SERVICES QUARTERLY REPORT

July-September 2018

PROPERTY PURCHASES

OWNER	LOCATION	SIZE	TYPE	PROJECT/PURPOSE	AMOUNT PAID	DATE
Oaktown Properties	9000 International Blvd, Oakland	10,000 sq/ft	Temporary Construction Easement	Staging Area for Plymouth Cluster Project (9/11/18-9/30/18) (10/1/18-10/31/18)	\$3,333.00	9/11/2018
Acts Full Gospel Church	1433 55 th Ave., Oakland	10,000 sq/ft	Temporary Construction Easement	International Blvd. Pipeline Replacement #2009016 (9/1/18-9/30/18)	\$3,000.00	8/28/2018
City of Oakland	Park Blvd, Oakland APN: 029A-1330-027-4	10,000 sq/ft	Temporary Construction Easement	Sunny Hills & Georgia Street Project (9/3/18-10/2/18)	\$3,000.00	8/28/18
City Of Oakland	Park Blvd, Oakland APN: 029A-1330-027-4	10,000 sq/ft	Temporary Construction Easement	Sunny Hills & Georgia Street Project Application & Processing Fee Deposit + (8/3/18-9/2/18 Rental Fee)	\$7,940.00	7/31/18

PROPERTY DISPOSITIONS

APPLICANT	LOCATION	TYPE	PURPOSE	AMOUNT RECEIVED	DATE
Town of Moraga	East Side of Canyon Rd, SW of Camino Pablo Rd, Moraga	Application Fee	Fee for Purchase of Property	\$12,600.00	7/9/2018
Classic Parking	Oakport	Lease	Parking (7/20/18-7/22/18)	\$8,043.00	7/31/2018

Classic Parking	Oakport	Lease	Parking (8/10/18-8/24/18)	\$5,362.00	8/10/2018
Classic Parking	Oakport	Lease	Parking (8/7/18)	\$2,681.00	8/17/18
PGE	Oakport	TCE	Staging (9/1/18-9/30/18)	\$14,727.00	9/17/18
Contra Costa County	Alhambra Valley Rd/ Castro Ranch Rd, Pinole	Sale	Sale of Portion of Prop 41-A	\$4,000.00	9/19/18
Charles & Suha Scurich	Prop 528 – 62 Spyglass Hill	Lease	Long term 25 year lease	\$28,000.00	9/24/18
COPA, INC	Oakport	Lease	Music Festival (7/29/18)	\$2,780.00	7/24/18

Approved by:


 Matt Elawady, Real Estate Services Manager

10.16.18
 Date

Cc: Marina Hughes
 Sandy Lindley
 Andrew Lee

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 18, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Quarterly Investment Report – September 30, 2018

SUMMARY

In accordance with Section 53646 of the California Government Code, the Treasurer of the District hereby submits to the General Manager, the Internal Auditor, and the Board of Directors a quarterly investment report. Attached is the September 30, 2018 quarterly investment report. This report will be reviewed with the Finance/Administration Committee on October 23, 2018.

DISCUSSION

The investments held by the District on September 30, 2018 are shown in Attachment A and totaled \$669.9 million. The portfolio is in compliance with the Board's adopted policy regarding District investments and as of September 30, 2018 had an average yield to maturity of 1.69 percent. The portfolio includes Water System Debt Service Reserve Funds of approximately \$3.7 million that are invested in short-term money market funds. Investments also reflect working capital of the District's Employee Retirement System (ERS) and Joint Powers Authorities.

Attachment B shows the composition and credit allocation of the District's investment portfolio. It also shows a comparison of the yield of the District's portfolio against the yield on the 90-day Treasury Bill and the Federal Funds Rate. On September 28, 2018, the Federal Funds Rate was 2.25 percent and the yield on the 90-day Treasury Bill was 2.19 percent. A forecast of the projected cash balance of the Water and Wastewater System General Funds for the six months through March 2019 is also included. In compliance with Section 53646(b)3 of the California Government Code, this report denotes that the District projects it will meet expenditure requirements for the next six months from a combination of maturing investments and revenues from budgeted operations.

ARC:SDS:RLH

Attachments




EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Portfolio Summary
September 30, 2018

ATTACHMENT A

Description	Face Amount Shares	Market Value	Book Value	% of Portfolio	YTM @ Cost	Days To Maturity
Federal Agency Issues Coupon	445,749,706	441,793,313	445,511,182	66.37	1.60	434
CAMP CA Asset Mgmt Program	90,762,000	90,762,000	90,762,000	13.63	2.14	1
LAIF Local Government Investment Pool	68,427,847	68,427,847	68,427,847	10.28	2.00	1
Cash	25,563,212	25,563,212	25,563,212	3.84	0.80	1
Medium Term Notes	21,411,000	21,347,113	21,398,815	3.21	1.59	107
Municipal Bonds	14,255,000	14,068,628	14,257,335	2.11	1.98	494
Money Market Mutual Funds	3,694,193	3,694,193	3,694,193	0.55	1.78	1
Total/Average	669,862,957	665,656,306	669,614,582	100.00	1.69	302


Sophia D. Skoda
Director of Finance


Date

*LAIF includes Retirement funds of \$3,427,846.55



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Non-Cash Portfolio Holdings by Fund
September 30, 2018

ATTACHMENT A

Water:

Description	Face Amount Shares	Market Value	Book Value
Federal Agency Issues Coupon	401,721,706	398,124,792	401,508,448
CAMP CA Asset Mgmt Program	65,584,450	65,584,450	65,584,450
LAIF Local Government Investment Pool	22,351,800	22,351,800	22,351,800
Medium Term Notes	19,886,000	19,828,816	19,878,059
Municipal Bonds	10,520,000	10,371,367	10,518,673
Money Market Mutual Funds	21,389	21,389	21,389
Total/Average	520,085,345	516,282,615	519,862,819

Wastewater:

Description	Face Amount Shares	Market Value	Book Value
Federal Agency Issues Coupon	43,263,000	42,908,067	43,238,613
LAIF Local Government Investment Pool	36,021,100	36,021,100	36,021,100
CAMP CA Asset Mgmt Program	25,177,551	25,177,551	25,177,551
Municipal Bonds	3,735,000	3,697,261	3,738,662
Medium Term Notes	1,525,000	1,518,297	1,520,756
Money Market Mutual Funds	5,716	5,716	5,716
Total/Average	109,727,367	109,327,992	109,702,397



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Non-Cash Portfolio Holdings by Fund
September 30, 2018

ATTACHMENT A

JPA:

BACWA	Face Amount Shares	Market Value	Book Value
LAIF Local Government Investment Pool	2,262,600	2,262,600	2,262,600
Federal Agency Issues Coupon	765,000	760,454	764,121
Total/Average	3,027,600	3,023,054	3,026,721

DERWA

LAIF Local Government Investment Pool	0	0	0
Total/Average	0	0	0

FRWA

LAIF Local Government Investment Pool	2,150,000	2,150,000	2,150,000
Total/Average	2,150,000	2,150,000	2,150,000

IICP

LAIF Local Government Investment Pool	150,500	150,500	150,500
Total/Average	150,500	150,500	150,500

UMRWA

LAIF Local Government Investment Pool	64,000	64,000	64,000
Total/Average	64,000	64,000	64,000



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Non-Cash Portfolio Holdings by Fund
September 30, 2018

ATTACHMENT A

Other:

Employee Retirement System	Face Amount Shares	Market Value	Book Value
LAIF Local Government Investment Pool	3,427,847	3,427,847	3,427,847
Total/Average	3,427,847	3,427,847	3,427,847

FERC

LAIF Local Government Investment Pool	2,000,000	2,000,000	2,000,000
Total/Average	2,000,000	2,000,000	2,000,000

DSRF Water 2008A

Money Market Mutual Funds	3,322,338	3,322,338	3,322,338
Total/Average	3,322,338	3,322,338	3,322,338

DSRF Water 2010A

Money Market Mutual Funds	344,749	344,749	344,749
Total/Average	344,749	344,749	344,749



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Portfolio Details by Fund - Investments
September 30, 2018

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
Water:										
Federal Agency Issues Coupon										
FNMA 1.1 10/29/2018-16	3135G0G64	10/30/2015	20,000,000	19,982,800	20,000,000	20,000,000	Aaa	AA+	1.10	29
FFCB 1.25 11/21/2018	3133EHN55	6/27/2017	15,000,000	14,981,100	14,998,583	14,986,050	Aaa	AA+	1.32	52
FHLMC Step 5/22/2020-17	3134GBNG3	7/21/2017	11,975,000	11,901,354	11,975,000	11,975,000	Aaa	AA+	2.03	600
FHLB 1.6 5/22/2020-18	3130ABYZ3	8/23/2017	10,500,000	10,295,985	10,499,215	10,498,688	Aaa	AA+	1.61	600
FFCB 1.12 5/3/2019-17	3133EGD77	8/7/2017	10,000,000	9,920,700	9,980,840	9,943,500	Aaa	AA+	1.45	215
FHLMC 1.08 10/19/2018-16	3134G7V57	11/8/2017	10,000,000	9,994,400	9,997,626	9,956,900	Aaa	AA+	1.54	19
FHLMC Step 8/24/2021-17	3134GAEM2	8/24/2016	9,000,000	8,882,910	8,999,217	8,998,650	Aaa	AA+	2.08	1059
FHLB Step 11/24/2021-17	3130AA2M9	11/30/2016	8,750,000	8,701,438	8,733,399	8,723,750	Aaa	AA+	2.05	1151
FHLMC 1.5 11/27/2019-17	3134GA4E1	6/27/2017	6,700,000	6,606,736	6,702,407	6,705,025	Aaa	AA+	1.47	423
FHLB 1.2 5/23/2019-16	3130A7ZW8	6/26/2017	6,000,000	5,950,440	5,989,810	5,969,820	Aaa	AA+	1.47	235
FHLB Step 11/28/2018-17	3134GAWZ3	11/28/2016	5,650,000	5,647,966	5,649,297	5,641,299	Aaa	AA+	1.31	59
FHLMC Step 11/22/2019-17	3134GAWK6	11/22/2016	5,425,000	5,391,202	5,419,823	5,411,438	Aaa	AA+	1.74	418
FHLMC 1.55 11/27/2019-17	3134GA2P8	6/30/2017	5,420,000	5,348,727	5,421,277	5,422,656	Aaa	AA+	1.53	423
FFCB 1.25 5/23/2019-16	3133EFD20	9/27/2017	5,000,000	4,959,650	4,992,011	4,979,500	Aaa	AA+	1.50	235
FHLB 1.07 11/26/2018-17	3130A7XG5	8/16/2017	5,000,000	4,991,400	4,997,840	4,982,300	Aaa	AA+	1.35	57
FHLMC Step 7/19/2021-17	3134G9N52	7/19/2016	5,000,000	4,882,700	5,000,000	5,000,000	Aaa	AA+	1.73	1023
FHLMC Step 7/27/2021-17	3134G9L47	7/27/2016	5,000,000	4,858,500	5,000,000	5,000,000	Aaa	AA+	1.62	1031
FHLMC Step 8/25/2021-16	3134GACG7	8/25/2016	5,000,000	4,898,800	5,000,000	5,000,000	Aaa	AA+	2.21	1060
FHLMC Step 8/25/2021-17	3134G95P8	8/25/2016	5,000,000	4,881,550	5,000,000	5,000,000	Aaa	AA+	1.89	1060
FHLMC 1.45 5/28/2019-17	3134GBNZ1	7/12/2017	4,470,000	4,438,978	4,469,593	4,468,838	Aaa	AA+	1.46	240
FHLB Step 11/23/2020-17	3130A9XU0	11/23/2016	4,400,000	4,328,060	4,394,681	4,390,100	Aaa	AA+	1.70	785
FHLMC Step 11/23/2020-17	3134GAWW0	11/23/2016	4,275,000	4,223,786	4,268,109	4,262,175	Aaa	AA+	1.84	785
FHLB 1.65 5/28/2020-18	3130AC7J7	8/28/2017	4,185,000	4,106,448	4,184,899	4,184,833	Aaa	AA+	1.65	606
FHLB 1.24 5/23/2019-13	313382ZB2	9/20/2017	4,100,000	4,067,159	4,094,867	4,086,675	Aaa	AA+	1.44	235
FHLB Step 3/30/2021-16	3130A9HD6	9/30/2016	4,000,000	3,961,960	4,000,000	4,000,000	Aaa	AA+	2.30	912
FHLMC Step 6/30/2020-16	3134G9YE1	6/30/2016	4,000,000	3,968,840	4,000,000	4,000,000	Aaa	AA+	1.74	639
FHLMC Step 9/23/2021-16	3134GAHM9	9/23/2016	4,000,000	3,941,040	3,998,807	3,998,000	Aaa	AA+	2.09	1089
FNMA 1.25 7/26/2019-17	3135G0N25	7/26/2016	4,000,000	3,956,040	4,000,000	4,000,000	Aaa	AA+	1.25	299
FNMA Step 7/26/2019-16	3136G3ZA6	7/26/2016	4,000,000	3,988,400	4,000,000	4,000,000	Aaa	AA+	1.41	299
FNMA Step 7/28/2021-17	3136G3T96	7/28/2016	4,000,000	3,887,200	4,000,000	4,000,000	Aaa	AA+	1.69	1032
FHLMC 1.25 5/24/2019-17	3134G9QL4	10/11/2017	3,965,000	3,932,646	3,958,323	3,948,307	Aaa	AA+	1.51	236
FFCB 1.34 11/2/2018	3133EHB51	10/2/2017	3,900,000	3,897,036	3,899,912	3,898,947	Aaa	AA+	1.37	33
FHLMC Step 10/28/2021-17	3134GASR6	10/28/2016	3,550,000	3,494,975	3,548,907	3,548,225	Aaa	AA+	2.04	1124

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
FNMA 1.25 11/15/2019-17	3135G0R62	7/20/2017	3,515,000	3,454,894	3,504,778	3,493,910	Aaa	AA+	1.51	411
FHLB Step 12/28/2021-17	3130AABN7	12/28/2016	3,510,000	3,511,860	3,508,292	3,507,368	Aaa	AA+	3.08	1185
FFCB 1.03 4/5/2019-16	3133EGJW6	11/14/2017	3,500,000	3,473,785	3,488,278	3,468,220	Aaa	AA+	1.69	187
FHLMC 1.3 11/27/2019-17	3134GAWD2	7/12/2017	3,500,000	3,443,510	3,492,734	3,485,090	Aaa	AA+	1.48	423
FNMA 1.25 11/25/2019-17	3135G0R70	7/14/2017	3,500,000	3,438,680	3,490,126	3,479,735	Aaa	AA+	1.50	421
FHLMC Step 7/14/2020-16	3134G9J81	7/14/2016	3,365,000	3,307,492	3,364,850	3,364,664	Aaa	AA+	1.53	653
FFCB 1.74 11/25/2020-17	3133EHKS1	6/23/2017	3,325,000	3,247,960	3,322,908	3,321,675	Aaa	AA+	1.77	787
FHLMC 1.125 11/26/2018-17	3134G9QH3	7/11/2017	3,215,000	3,209,599	3,213,943	3,205,677	Aaa	AA+	1.34	57
FHLMC 1.2 5/23/2019-16	3134GAAR5	8/23/2016	3,200,000	3,173,248	3,200,000	3,200,000	Aaa	AA+	1.20	235
FHLMC Step 11/26/2019-17	3134GAZN7	11/30/2016	3,190,000	3,168,595	3,187,779	3,184,258	Aaa	AA+	1.56	422
FHLMC Step 7/27/2021-17	3134G9K63	7/27/2016	3,180,000	3,107,242	3,179,551	3,179,205	Aaa	AA+	1.76	1031
FHLMC 1.25 5/24/2019-16	3134G9LD7	7/18/2017	3,050,000	3,024,380	3,047,227	3,042,070	Aaa	AA+	1.39	236
FHLB Step 5/24/2021-17	3130AABG0	8/14/2017	3,025,000	3,006,578	3,024,830	3,024,758	Aaa	AA+	2.57	967
FFCB 1.3 11/7/2019	3133EA7D4	9/22/2017	3,000,000	2,956,560	2,992,241	2,985,060	Aaa	AA+	1.54	403
FHLMC 1.3 5/24/2019-16	3134G9MU8	7/18/2017	3,000,000	2,975,970	2,998,427	2,995,500	Aaa	AA+	1.38	236
FHLMC Step 7/19/2021-17	3134G9N52	7/19/2016	3,000,000	2,929,620	3,000,000	3,000,000	Aaa	AA+	1.73	1023
FNMA 1.75 11/26/2019	3135G0ZY2	7/11/2017	3,000,000	2,968,230	3,009,044	3,018,603	Aaa	AA+	1.48	422
FNMA Step 10/28/2019-16	3136G3E43	7/28/2016	3,000,000	2,985,240	2,999,752	2,999,250	Aaa	AA+	1.54	393
FNMA Step 7/19/2021-17	3136G3ZZ1	7/19/2016	3,000,000	2,914,980	3,000,000	3,000,000	Aaa	AA+	1.73	1023
FNMA Step 7/26/2019-17	3136G3F67	7/26/2016	3,000,000	2,991,960	3,000,000	3,000,000	Aaa	AA+	1.46	299
FHLMC Step 10/28/2021-17	3134GASC9	10/28/2016	2,960,000	2,912,107	2,957,722	2,956,300	Aaa	AA+	2.03	1124
FHLMC 1.85 11/27/2020-17	3134GA2Q6	10/4/2017	2,925,000	2,862,727	2,924,699	2,924,561	Aaa	AA+	1.86	789
FFCB 0.89 11/16/2018	3133EGJ48	7/25/2017	2,836,000	2,830,895	2,834,483	2,820,544	Aaa	AA+	1.31	47
FHLMC Step 10/28/2019-17	3134GASN5	1/25/2018	2,750,000	2,725,883	2,736,933	2,728,688	Aaa	AA+	2.12	393
FHLMC Step 10/28/2019-17	3134GAUR3	10/28/2016	2,500,000	2,491,500	2,500,000	2,500,000	Aaa	AA+	1.57	393
FHLMC Step 7/26/2019-17	3134G9J24	7/26/2016	2,500,000	2,495,625	2,499,932	2,499,750	Aaa	AA+	1.50	299
FHLMC Step 8/28/2019-17	3134GAEV2	8/30/2016	2,500,000	2,496,325	2,500,000	2,500,000	Aaa	AA+	1.71	332
FHLMC Step 9/30/2021-16	3134GAGL2	9/30/2016	2,468,000	2,463,237	2,467,704	2,467,506	Aaa	AA+	2.27	1096
FFCB 0.89 11/16/2018	3133EGJ48	9/18/2017	2,439,000	2,434,610	2,437,632	2,426,659	Aaa	AA+	1.33	47
FHLMC 1.25 5/24/2019-16	3134G9LD7	11/16/2017	2,400,000	2,379,840	2,393,099	2,383,800	Aaa	AA+	1.70	236
FHLMC 1.4 2/25/2019-17	3134GAW26	10/4/2017	2,400,000	2,390,760	2,399,302	2,397,600	Aaa	AA+	1.47	148
FHLMC Step 8/28/2019-17	3134GAEV2	8/30/2016	2,400,000	2,396,472	2,400,000	2,400,000	Aaa	AA+	1.71	332
FHLMC Step 11/22/2019-17	3134GAWK6	11/22/2016	2,250,000	2,235,983	2,248,712	2,246,625	Aaa	AA+	1.71	418
FFCB 1.39 4/17/2019-17	3133EHFP3	9/22/2017	2,200,000	2,187,240	2,199,235	2,197,800	Aaa	AA+	1.45	199
FHLB 1.02 5/24/2019-17	3130A8YU1	6/23/2017	2,200,000	2,179,188	2,194,674	2,184,204	Aaa	AA+	1.40	236
FNMA 1 10/26/2018-17	3136G3ZS7	11/6/2017	2,190,000	2,188,182	2,189,207	2,179,203	Aaa	AA+	1.51	26
FHLMC Step 11/23/2020-17	3134GAWW0	11/23/2016	2,150,000	2,124,243	2,146,534	2,143,550	Aaa	AA+	1.84	785
FHLB 1.1 11/28/2018-16	3130A7YG4	12/12/2017	2,140,000	2,136,276	2,137,788	2,126,839	Aaa	AA+	1.75	59
FHLMC 1.125 11/28/2018-17	3134GAYE8	8/17/2017	2,095,000	2,091,334	2,094,345	2,089,804	Aaa	AA+	1.32	59
FHLMC Step 11/26/2019-17	3134GAZN7	11/30/2016	2,050,000	2,036,245	2,049,524	2,048,770	Aaa	AA+	1.52	422
FFCB 1.15 11/23/2018-16	3133EFD95	8/3/2017	2,000,000	1,997,160	1,999,400	1,994,702	Aaa	AA+	1.36	54
FHLB 1.05 10/26/2018-16	3130A8RP0	9/19/2017	2,000,000	1,998,480	1,999,620	1,994,120	Aaa	AA+	1.32	26

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
FHLMC 1 11/28/2018-16	3134GAHA5	8/30/2016	2,000,000	1,995,980	2,000,000	2,000,000	Aaa	AA+	1.00	59
FHLMC 1 11/29/2018-15	3134G44S4	8/4/2017	2,000,000	1,995,900	1,998,886	1,991,050	Aaa	AA+	1.34	60
FHLMC 1.125 5/22/2019-17	3134G92M8	9/18/2017	2,000,000	1,982,420	1,996,438	1,990,700	Aaa	AA+	1.41	234
FHLMC 1.125 5/28/2019-17	3134GAXB5	9/19/2017	2,000,000	1,981,900	1,995,792	1,989,200	Aaa	AA+	1.45	240
FHLMC Step 1/25/2019-17	3134G9Y43	7/25/2016	2,000,000	1,999,140	2,000,000	2,000,000	Aaa	AA+	1.22	117
FHLMC Step 11/25/2020-18	3134GB3T7	12/12/2017	2,000,000	1,973,880	1,998,979	1,998,600	Aaa	AA+	2.22	787
FNMA Step 7/26/2019-17	3136G3F67	7/26/2016	2,000,000	1,994,640	2,000,000	2,000,000	Aaa	AA+	1.46	299
FNMA Step 7/26/2019-17	3136G3ZT5	7/26/2016	2,000,000	1,990,200	2,000,000	2,000,000	Aaa	AA+	1.25	299
FHLMC Step 9/30/2019-17	3134GAMF8	9/30/2016	1,930,000	1,922,975	1,930,000	1,930,000	Aaa	AA+	1.62	365
FNMA Step 7/26/2019-17	3136G3F67	10/4/2017	1,890,000	1,884,935	1,889,598	1,889,112	Aaa	AA+	1.90	299
FFCB 2 5/17/2021-17	3133EHJP9	7/24/2017	1,830,000	1,788,313	1,830,139	1,830,201	Aaa	AA+	2.00	960
FHLMC Step 10/28/2021-17	3134GASK1	10/28/2016	1,800,000	1,784,286	1,800,000	1,800,000	Aaa	AA+	2.27	1124
FHLB 1.375 11/2/2018	3130ACR89	11/8/2017	1,750,000	1,748,810	1,749,796	1,747,778	Aaa	AA+	1.51	33
FNMA 1.4 6/13/2019-16	3135G0K85	8/11/2017	1,720,000	1,706,773	1,719,488	1,718,658	Aaa	AA+	1.44	256
FFCB 1.18 11/26/2019	3133EC4K7	6/28/2017	1,700,000	1,671,525	1,694,267	1,688,032	Aaa	AA+	1.48	422
FNMA 1.05 11/26/2018-14	3136G06Q9	9/19/2017	1,700,000	1,696,957	1,699,215	1,694,033	Aaa	AA+	1.35	57
FHLB 1.2 10/26/2018-17	3130AAM47	7/19/2017	1,550,000	1,548,977	1,549,891	1,548,063	Aaa	AA+	1.30	26
FFCB 1.2 2/11/2019-16	3133EFTY8	8/11/2017	1,537,000	1,529,084	1,535,950	1,532,696	Aaa	AA+	1.39	134
FFCB 1.06 11/19/2018-16	3133EGBE4	6/23/2017	1,500,000	1,497,390	1,499,421	1,494,045	Aaa	AA+	1.35	50
FHLB 1 11/23/2018-17	3130A8Y98	7/25/2017	1,500,000	1,497,420	1,499,250	1,493,250	Aaa	AA+	1.34	54
FHLB 1.45 11/8/2019-13	313380ZN0	8/1/2017	1,500,000	1,477,875	1,498,450	1,496,820	Aaa	AA+	1.55	404
FHLB Step 11/17/2021-17	3130A9UU3	11/17/2016	1,500,000	1,469,190	1,495,301	1,492,500	Aaa	AA+	1.91	1144
FNMA 1.25 6/13/2019-16	3135G0K77	9/22/2017	1,400,000	1,387,708	1,397,464	1,393,770	Aaa	AA+	1.51	256
FFCB 1 10/17/2018	3133EFN37	8/16/2017	1,195,000	1,194,307	1,194,816	1,190,387	Aaa	AA+	1.33	17
FHLMC Step 6/28/2019-16	3134G9VN4	9/20/2017	1,174,000	1,168,024	1,173,581	1,173,002	Aaa	AA+	1.68	271
FHLB 1.375 5/28/2019	3130ABF92	9/22/2017	1,130,000	1,121,672	1,129,527	1,128,791	Aaa	AA+	1.44	240
FFCB 1.12 5/3/2019-17	3133EGD77	8/10/2017	1,000,000	992,070	998,365	995,200	Aaa	AA+	1.40	215
FFCB 1.18 10/18/2019-16	3133EGLD5	7/19/2017	1,000,000	985,180	996,706	992,940	Aaa	AA+	1.50	383
FFCB 1.65 5/15/2019	3133EDLR1	9/19/2017	1,000,000	994,840	1,001,299	1,003,450	Aaa	AA+	1.44	227
FHLB 1.1 11/28/2018-16	3130A7YG4	10/13/2017	1,000,000	998,260	999,396	995,790	Aaa	AA+	1.48	59
FHLB 1.25 11/13/2019-15	313382W33	7/21/2017	1,000,000	984,040	997,657	995,160	Aaa	AA+	1.46	409
FHLB 1.25 11/30/2018	3130A6UJ4	9/21/2017	1,000,000	998,440	999,750	998,216	Aaa	AA+	1.40	61
FHLB Step 9/29/2020-18	3130ACFY5	10/4/2017	1,000,000	984,410	998,996	998,500	Aaa	AA+	1.94	730
FHLMC 1.1 6/28/2019-16	3134G9G84	10/3/2017	1,000,000	989,420	996,789	992,500	Aaa	AA+	1.54	271
FHLMC Step 4/4/2019-17	3134G8TL3	2/9/2018	1,000,000	997,740	999,445	998,750	Aaa	AA+	2.01	186
FNMA 1.15 5/24/2019-17	3136G3AR6	9/19/2017	1,000,000	991,500	998,226	995,400	Aaa	AA+	1.43	236
FNMA 1.25 6/24/2019-14	3136G14U0	9/20/2017	1,000,000	990,310	998,195	995,660	Aaa	AA+	1.45	267
FNMA 1.25 11/26/2019-17	3136G3PE9	7/19/2017	1,000,000	983,650	997,753	995,420	Aaa	AA+	1.45	422
FNMA 1.4 11/27/2019-13	3136G13Z0	8/17/2017	1,000,000	984,690	998,856	997,750	Aaa	AA+	1.50	423
FNMA 1.625 11/27/2018	3135G0YT4	2/9/2018	1,000,000	999,060	999,542	997,700	Aaa	AA+	1.92	58
FHLB 1.42 5/28/2019-17	3130AC5B6	8/28/2017	970,000	963,152	970,000	970,000	Aaa	AA+	1.42	240
FHLMC Step 11/27/2020-16	3134G75M9	8/7/2017	900,000	889,074	898,530	897,750	Aaa	AA+	2.67	789

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
FHLB 1.42 5/28/2019-17	3130AC5B6	8/28/2017	850,000	843,399	850,000	850,000	Aaa	AA+	1.42	240
FFCB 1.15 11/23/2018-16	3133EFD95	7/27/2017	800,000	798,864	799,726	797,544	Aaa	AA+	1.39	54
FFCB 5.15 11/15/2019	31331YEH9	7/24/2017	691,000	709,368	719,101	748,705	Aaa	AA+	1.46	411
FHLMC Step 10/28/2021-17	3134GASR6	10/28/2016	585,000	575,333	584,906	584,848	Aaa	AA+	2.04	1124
FAMC 1.52 7/15/2019-18	3132XOWA5	8/14/2017	500,000	496,040	500,000	500,000	Aaa	AA+	1.52	288
FFCB 0.97 11/1/2018-17	3133EGA70	7/17/2017	500,000	499,490	499,817	497,300	Aaa	AA+	1.39	32
FFCB 1.1 10/15/2018-16	3133EFPJ3	8/18/2017	500,000	499,770	499,949	498,565	Aaa	AA+	1.35	15
FFCB 1.32 5/7/2020-17	3133EGD69	7/27/2017	500,000	488,465	497,550	495,750	Aaa	AA+	1.63	585
FHLB 1.03 5/28/2019-17	3130A92Y6	7/27/2017	500,000	495,205	498,594	496,075	Aaa	AA+	1.47	240
FHLB 1.05 11/8/2018-13	313381VJ1	6/23/2017	500,000	499,425	499,858	498,165	Aaa	AA+	1.32	39
FHLB 1.25 5/23/2019-16	3130A86T5	6/23/2017	500,000	496,025	499,398	498,210	Aaa	AA+	1.44	235
FHLB 2 11/21/2019	313376H24	8/1/2017	500,000	495,840	502,929	505,915	Aaa	AA+	1.48	417
FHLMC 1 11/23/2018-17	3134GAGG3	7/21/2017	500,000	499,125	499,780	498,000	Aaa	AA+	1.30	54
FHLMC 1 11/23/2018-17	3134GAGG3	8/17/2017	500,000	499,125	499,767	498,000	Aaa	AA+	1.32	54
FHLMC 1.05 10/30/2018-15	3134G42X5	8/11/2017	500,000	499,530	499,894	498,425	Aaa	AA+	1.31	30
FHLMC 1.2 5/7/2019-15	3134G43G1	8/7/2017	500,000	496,100	499,437	498,360	Aaa	AA+	1.39	219
FNMA 1.25 11/20/2018-15	3136G2H91	7/19/2017	500,000	499,340	499,943	499,458	Aaa	AA+	1.33	51
FNMA 1.5 11/30/2018-14	3136G0HK0	6/26/2017	450,000	449,460	450,106	450,910	Aaa	AA+	1.36	61
FHLMC 1.5 9/9/2019-18	3134GA7A6	7/24/2017	420,000	415,611	419,972	419,937	Aaa	AA+	1.51	344
FHLB 1.3 5/1/2020-17	3130A8WW9	8/4/2017	400,000	390,700	398,177	396,848	Aaa	AA+	1.60	579
FHLMC Step 10/28/2019-17	3134GASN5	10/28/2016	400,000	396,492	400,000	400,000	Aaa	AA+	1.41	393
FHLB Step 6/29/2020-17	3130ABLU8	8/17/2017	365,000	360,105	364,778	364,635	Aaa	AA+	1.93	638
FHLMC Step 5/22/2019-17	3134GBLF7	6/26/2017	300,000	299,898	299,990	299,970	Aaa	AA+	1.79	234
FFCB 1.34 10/17/2019-14	313380XX0	8/18/2017	250,000	246,548	249,662	249,300	Aaa	AA+	1.47	382
FHLB 1.15 11/6/2018-14	3133816L4	8/18/2017	250,000	249,753	249,947	249,368	Aaa	AA+	1.36	37
FHLMC 1.2 11/19/2018-13	3134G3U32	7/17/2017	250,000	249,648	249,964	249,650	Aaa	AA+	1.31	50
FFCB 2.07 5/9/2022-18	3133EHHV8	8/2/2017	200,000	193,336	200,113	200,150	Aaa	AA+	2.05	1317
FHLMC 1.25 11/22/2019-17	3134GAWN0	7/12/2017	175,000	172,120	174,536	174,041	Aaa	AA+	1.49	418
FHLMC 1.5 9/27/2019-17	3134GBWH1	8/14/2017	150,000	148,280	149,930	149,850	Aaa	AA+	1.55	362
FHLB 1.37 10/24/2019-14	313380Z75	8/14/2017	139,706	137,594	139,265	138,798	Aaa	AA+	1.67	389
FNMA 1.4 11/25/2019-16	3136G3RC1	7/12/2017	132,000	130,083	131,756	131,498	Aaa	AA+	1.56	421
FFCB 1.12 10/22/2018-13	3133EA5L8	8/14/2017	125,000	124,925	124,982	124,641	Aaa	AA+	1.36	22
FNMA 1.05 11/26/2018-14	3136G06Q9	8/10/2017	120,000	119,785	119,945	119,541	Aaa	AA+	1.35	57
FHLB 1.35 11/24/2020-17	3130A9VU2	7/27/2017	100,000	96,843	99,257	98,850	Aaa	AA+	1.71	786
FHLMC 1.05 11/28/2018-17	3134G94Q7	8/22/2017	100,000	99,807	99,952	99,625	Aaa	AA+	1.35	59
FNMA 1.15 11/28/2018-14	3136G1M89	8/23/2017	100,000	99,829	99,965	99,725	Aaa	AA+	1.37	59
Subtotal/Average			401,721,706	398,124,792	401,508,448	401,058,272				

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
CAMP CA Asset Mgmt Program										
CAMP MM	CAMP6035	5/9/2014	65,584,450	65,584,450	65,584,450	65,584,450	NR	AAA	2.14	1
Subtotal/Average			65,584,450	65,584,450	65,584,450	65,584,450				
LAIF Local Government Investment Pool										
LAIF LGIP	LGIP1001	6/30/2011	22,351,800	22,351,800	22,351,800	22,351,800	NR	NR	2.00	1
Subtotal/Average			22,351,800	22,351,800	22,351,800	22,351,800				
Medium Term Notes										
Microsoft Corp 1.3 11/3/2018	594918BF0	9/20/2017	8,909,000	8,899,022	8,908,148	8,898,755	Aaa	AAA	1.40	34
The Coca Cola Co 1.65 11/1/2018	191216BF6	11/2/2017	5,127,000	5,123,873	5,127,645	5,134,332	Aa3	AA-	1.51	32
Apple Inc 1.8 11/13/2019	037833DH0	11/13/2017	3,000,000	2,968,290	2,999,160	2,998,500	Aa1	AA+	1.83	409
The Coca Cola Co 1.375 5/30/2019	191216BV1	2/12/2018	1,350,000	1,339,497	1,343,037	1,336,419	Aa3	AA-	2.16	242
Microsoft Corp 1.3 11/3/2018	594918BF0	12/13/2017	1,000,000	998,880	999,582	996,000	Aaa	AAA	1.76	34
Johnson & Johnson 1.65 12/5/2018	478160BG8	10/27/2015	500,000	499,255	500,488	508,395	Aaa	AAA	1.10	66
Subtotal/Average			19,886,000	19,828,816	19,878,059	19,872,400				
Municipal Bonds										
Santa Clara County CA 2 8/1/2019	801546PD8	11/9/2017	2,630,000	2,616,271	2,636,888	2,644,228	Aaa	AA+	1.68	305
San Jose Redevelopment Agency Successor Agency 2.0	798170AB2	12/21/2017	2,270,000	2,257,765	2,270,000	2,270,000	None	AA	2.10	305
San Francisco City & Cnty CA Redevelopment Age	79770GGM2	11/30/2017	1,500,000	1,473,615	1,498,648	1,498,035	None	AA-	2.05	671
Highland Redevelopment Agency Successor Agency 2	430034AV0	9/7/2017	810,000	784,963	807,448	806,290	None	AA+	2.14	855
Santa Cruz County Redevelopment Successor Agency 2	80182YCR6	8/3/2017	760,000	744,063	760,000	760,000	None	AA	2.01	702
Contra Costa County Redevelopment Agency Successor	212263AQ0	8/16/2017	750,000	729,068	747,267	745,598	None	AA	1.96	671
University Calif Rev Bond 1.796 7/1/2019	91412GSB2	10/16/2015	500,000	496,660	500,528	502,610	Aa2	AA	1.65	274
Santa Cruz County Redevelopment Successor Agency 1	80182YCCQ8	8/3/2017	475,000	469,471	475,000	475,000	None	AA	1.61	336
Yorba Linda Redevelopment Agency Successor Agency	986176AR6	9/1/2017	365,000	350,017	364,193	363,971	None	AA-	2.31	1432
Yorba Linda Redevelopment Agency Successor Agency	986176AP0	8/24/2017	235,000	228,989	234,780	234,655	None	AA-	1.80	702
Alameda County Improvement Commission Successor Ag	010775BA1	6/7/2017	225,000	220,487	223,920	223,182	None	AA-	2.26	702
Subtotal/Average			10,520,000	10,371,367	10,518,673	10,523,568				
Money Market Mutual Funds										
Federated MM	MM3767	1/9/2018	21,389	21,389	21,389	21,389	Aaa	AAA	1.97	1
Subtotal/Average			21,389	21,389	21,389	21,389				
Total/Average			520,085,345	516,282,615	519,862,819	519,411,879				



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Portfolio Details by Fund - Investments
September 30, 2018

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
Wastewater:										
Federal Agency Issues Coupon										
FNMA 1.03 10/26/2018	3136G2PN1	10/26/2015	5,000,000	4,995,950	5,000,000	5,000,000	Aaa	AA+	1.03	26
FHLMC 1.75 5/30/2019	3137EADG1	6/29/2017	3,000,000	2,985,030	3,007,942	3,022,974	Aaa	AA+	1.34	242
FNMA 1.625 11/27/2018	3135G0YT4	6/27/2017	3,000,000	2,997,180	3,001,563	3,013,956	Aaa	AA+	1.29	58
FHLMC Step 7/14/2020-16	3134G9J81	7/14/2016	2,500,000	2,457,275	2,500,000	2,500,000	Aaa	AA+	1.52	653
FHLMC Step 6/30/2020-16	3134G9YE1	6/30/2016	2,425,000	2,406,109	2,424,788	2,424,515	Aaa	AA+	1.74	639
FHLMC Step 8/24/2021-17	3134G92Q9	8/24/2016	2,000,000	1,970,360	1,999,884	1,999,800	Aaa	AA+	2.37	1059
FNMA 1.625 11/27/2018	3135G0YT4	6/27/2017	2,000,000	1,998,120	2,001,057	2,009,440	Aaa	AA+	1.29	58
FHLB Step 7/27/2020-17	3130A8RH8	7/27/2016	1,500,000	1,473,165	1,499,863	1,499,700	Aaa	AA+	1.62	666
FHLMC 1.2 5/23/2019-16	3134GAAR5	8/23/2016	1,500,000	1,487,460	1,500,000	1,500,000	Aaa	AA+	1.20	235
FHLMC 1.3 8/28/2019-16	3134GAFY5	8/30/2016	1,500,000	1,482,180	1,500,000	1,500,000	Aaa	AA	1.30	332
FHLMC Step 7/26/2019-17	3134G9J24	7/26/2016	1,500,000	1,497,375	1,499,959	1,499,850	Aaa	AA+	1.50	299
FHLMC Step 6/28/2019-16	3134G9YQ4	6/28/2016	1,150,000	1,148,275	1,149,929	1,149,713	Aaa	AA+	1.58	271
FNMA Step 7/26/2019-17	3136G3F67	7/26/2016	1,000,000	997,320	1,000,000	1,000,000	Aaa	AA+	1.46	299
FNMA Step 7/28/2021-17	3136G3T96	7/28/2016	1,000,000	971,800	1,000,000	1,000,000	Aaa	AA+	1.69	1032
FHLB Step 5/10/2021-17	3130A9VX6	10/16/2017	930,000	905,178	924,541	922,541	Aaa	AA+	2.03	953
FHLB 1.33 11/22/2019-17	3130AA2X5	9/27/2017	750,000	738,180	747,575	745,440	Aaa	AA+	1.62	418
FNMA 1.25 6/28/2019-16	3135G0K93	10/2/2017	720,000	713,210	718,307	716,040	Aaa	AA+	1.57	271
FNMA 1.28 5/24/2019-16	3136G3BK0	1/11/2018	699,000	693,639	696,055	692,786	Aaa	AA+	1.94	236
FHLMC Step 8/24/2021-17	3134GAAJ3	8/24/2016	600,000	592,254	599,826	599,700	Aaa	AA+	2.09	1059
FNMA 1.375 12/27/2019-13	3136G15Z8	10/2/2017	536,000	526,754	534,215	532,784	Aaa	AA+	1.65	453
FFCB 1.12 2/22/2019-17	3133EFC70	10/18/2017	500,000	497,890	499,064	496,825	Aaa	AA+	1.60	145
FFCB 1.35 5/2/2019	3133EHHN6	9/18/2017	500,000	496,715	499,766	499,355	Aaa	AA+	1.43	214
FHLB 1.15 11/27/2018-13	313382CU5	12/12/2017	500,000	499,185	499,543	497,240	Aaa	AA+	1.73	58
FHLMC 1 3/29/2019-16	3134G9B97	10/18/2017	500,000	496,530	498,540	495,725	Aaa	AA+	1.60	180
FHLMC 1.05 11/28/2018-17	3134GAWM2	6/30/2017	500,000	499,070	499,721	497,560	Aaa	AA+	1.40	59
FHLMC 1.08 5/24/2019-18	3134G9NH6	10/18/2017	500,000	495,420	498,280	495,750	Aaa	AA+	1.62	236
FHLMC 1.4 5/28/2020-17	3134GAYM0	7/10/2017	500,000	488,900	497,330	495,360	Aaa	AA+	1.73	606
FNMA 1.15 9/30/2019-17	3136G4CZ4	10/18/2017	500,000	492,655	497,591	495,300	Aaa	AA+	1.64	365
FHLB 2 11/21/2019	313376H24	1/23/2018	450,000	446,256	449,454	449,127	Aaa	AA+	2.11	417
FHLMC Step 8/27/2019-17	3134G97C5	8/30/2016	440,000	439,353	439,860	439,538	Aaa	AA+	1.67	331

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
FHLMC 1.3 5/24/2019-16	3134G9MU8	6/29/2017	400,000	396,796	399,585	398,780	Aaa	AA+	1.46	236
FHLMC Step 10/18/2019-17	3134GAR55	7/27/2018	400,000	397,904	398,786	398,580	Aaa	AA+	2.60	383
FHLMC 1 11/23/2018-17	3134G8LV9	12/12/2017	370,000	369,327	369,633	367,651	Aaa	AA+	1.68	54
FHLMC Step 5/9/2022-17	3134GBJH6	7/11/2017	355,000	348,433	354,204	353,935	Aaa	AA+	1.98	1317
FNMA 1.4 11/25/2019-17	3136G4GU1	6/28/2017	350,000	345,020	349,498	348,950	Aaa	AA+	1.53	421
FFCB 2.5 11/19/2018	3133J2U6	10/17/2017	318,000	318,067	318,440	321,504	Aaa	AA+	1.48	50
FFCB 1.12 5/3/2019-17	3133EGD77	9/28/2017	300,000	297,621	299,208	297,856	Aaa	AA+	1.58	215
FNMA 1.16 10/29/2018-16	3135G0F40	9/19/2017	300,000	299,757	299,962	299,469	Aaa	AA+	1.32	29
FHLB 1.1 11/28/2018-16	3130A7YG4	9/27/2017	250,000	249,565	249,874	249,088	Aaa	AA+	1.42	59
FHLB 1.6 10/23/2019-18	3130ACHR8	10/23/2017	250,000	246,993	249,814	249,650	Aaa	AA+	1.67	388
FHLB 1.5 11/9/2021-17	3130A9Z61	7/10/2017	235,000	224,780	232,217	231,123	Aaa	AA+	1.90	1136
FFCB 1.34 11/30/2018-16	3133EFRH2	11/8/2017	200,000	199,714	199,945	199,654	Aaa	AA+	1.51	61
FNMA Step 5/18/2020-18	3136G3ME2	9/18/2017	200,000	198,736	199,632	199,400	Aaa	AA+	1.95	596
FHLB 1.07 11/26/2018-17	3130A7XG5	6/29/2017	155,000	154,733	154,933	154,398	Aaa	AA+	1.35	57
FFCB 1.7 5/3/2021-17	3133EF5T0	7/11/2017	150,000	145,373	149,286	148,950	Aaa	AA+	1.89	946
FHLB 1.125 10/10/2018-13	313382N90	10/2/2017	150,000	149,963	149,989	149,582	Aaa	AA+	1.40	10
FFCB 0.97 11/1/2018-17	3133EGA70	7/6/2017	145,000	144,852	144,952	144,275	Aaa	AA+	1.35	32
FHLMC 1.3 11/27/2019-17	3134GAWD2	11/14/2017	135,000	132,821	134,191	133,579	Aaa	AA+	1.83	423
FAMC 1.5 5/15/2019	3132X0QX2	9/20/2017	100,000	99,401	99,996	99,989	Aaa	AA+	1.51	227
FFCB 1.06 11/19/2018-16	3133EGBE4	12/21/2017	100,000	99,826	99,906	99,375	Aaa	AA+	1.75	50
FFCB 1.19 12/28/2018-16	3133EFT49	6/30/2017	100,000	99,689	99,938	99,617	Aaa	AA+	1.45	89
FHLB 1 10/29/2018-15	313382S95	9/20/2017	100,000	99,910	99,970	99,576	Aaa	AA+	1.39	29
Subtotal/Average			43,263,000	42,908,067	43,238,613	43,235,997				
LAIF Local Government Investment Pool										
LAIF LGIP	LGIP1001	6/30/2011	36,021,100	36,021,100	36,021,100	36,021,100	NR	NR	2.00	1
Subtotal/Average			36,021,100	36,021,100	36,021,100	36,021,100				
CAMP CA Asset Mgmt Program										
CAMP MM	CAMP6035	8/19/2016	25,177,551	25,177,551	25,177,551	25,177,551	NR	AAA	2.14	1
Subtotal/Average			25,177,551	25,177,551	25,177,551	25,177,551				
Municipal Bonds										
Culver City Redevelopment Agency Successor Agency	230340AM3	12/4/2017	780,000	763,636	778,284	777,582	None	AA-	2.11	763
Anaheim Redevelopment Agency Successor Agency 2.22	032564AN6	1/25/2018	700,000	699,412	700,000	700,000	None	AA-	2.22	124
Successor Agency to the Redevelopment Agency of th	79730WBG4	2/9/2017	520,000	514,618	518,603	516,116	None	AA	1.93	336
Brea CA Redevelopment Agency Successor Agency 2 8/1	106293CE1	11/1/2017	340,000	333,129	339,875	339,813	None	AA-	2.02	671
Fontana Redevelopment Agency Successor Agency 1.625	34461CAW4	12/6/2017	300,000	295,782	299,482	299,061	None	AA	1.80	366
Palm Springs CA Cmnty Redevelopment Agency Success	69667ABR6	11/15/2017	285,000	278,508	284,732	284,610	None	AA-	2.05	702
California St 6.2 10/1/2019-09	13063A7G3	9/26/2018	275,000	284,056	283,977	284,075	Aa3	AA-	2.87	366
Palm Springs CA Cmnty Redevelopment Agency Success	69667ABS4	11/15/2017	135,000	129,862	133,685	133,292	None	AA-	2.35	1067

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
Fontana Redevelopment Agency Successory Agency 1.5	34461CAV6	12/6/2017	125,000	125,000	125,000	124,918	None	AA	1.58	1
Brea CA Redevelopment Agency Successor Agency 1.62	106293CD3	11/1/2017	100,000	98,978	99,905	99,801	None	AA-	1.74	305
Lake Elsinore Redevelopment Agency Successor Agency	86459ABQ4	3/20/2018	100,000	99,855	99,930	99,841	AA	None	2.42	152
Lynwood Unified School District 2 8/1/2019	551800GG4	9/18/2017	75,000	74,426	75,209	75,467	None	AA-	1.66	305
Subtotal/Average			3,735,000	3,697,261	3,738,662	3,734,574				
Money Market Mutual Funds										
Federated MM	MM3767	6/25/2018	5,716	5,716	5,716	5,716	Aaa	AAA	1.97	1
Subtotal/Average			5,716	5,716	5,716	5,716				
Medium Term Notes										
Microsoft Corp 1.3 11/3/2018	594918BF0	1/24/2018	775,000	774,132	774,559	771,327	Aaa	AAA	1.92	34
The Coca Cola Co 1.375 5/30/2019	191216BV1	2/12/2018	750,000	744,165	746,197	742,583	Aa3	AA-	2.15	242
Subtotal/Average			1,525,000	1,518,297	1,520,756	1,513,909				
Total/Average			109,727,367	109,327,992	109,702,397	109,688,847				



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Portfolio Details by Fund - Investments
September 30, 2018

Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
JPA:										
BACWA										
LAIF LGIP	LGIP1001	6/30/2011	2,262,600	2,262,600	2,262,600	2,262,600	NR	NR	2.00	1
FHLMC 1.2 5/23/2019-16	3134GAAR5	2/1/2017	300,000	297,492	299,672	298,827	Aaa	AA+	1.37	235
FNMA Step 5/18/2020-18	3136G3ME2	9/18/2017	300,000	298,104	299,449	299,100	Aaa	AA+	1.95	596
FNMA 1.1 10/29/2018-16	3135G0G64	10/30/2015	165,000	164,858	165,000	165,000	Aaa	AA+	1.10	29
Subtotal/Average			3,027,600	3,023,054	3,026,721	3,025,527				
FRWA										
LAIF LGIP	LGIP1001	6/30/2011	2,150,000	2,150,000	2,150,000	2,150,000	NR	NR	2.00	1
Subtotal/Average			2,150,000	2,150,000	2,150,000	2,150,000				
IICP										
LAIF LGIP	LGIP1001	6/30/2011	150,500	150,500	150,500	150,500	NR	NR	2.00	1
Subtotal/Average			150,500	150,500	150,500	150,500				
UMRWA										
LAIF LGIP	LGIP1001	6/30/2011	64,000	64,000	64,000	64,000	NR	NR	2.00	1
Subtotal/Average			64,000	64,000	64,000	64,000				



EAST BAY MUNICIPAL UTILITY DISTRICT
Portfolio Management
Portfolio Details by Fund - Investments
September 30, 2018

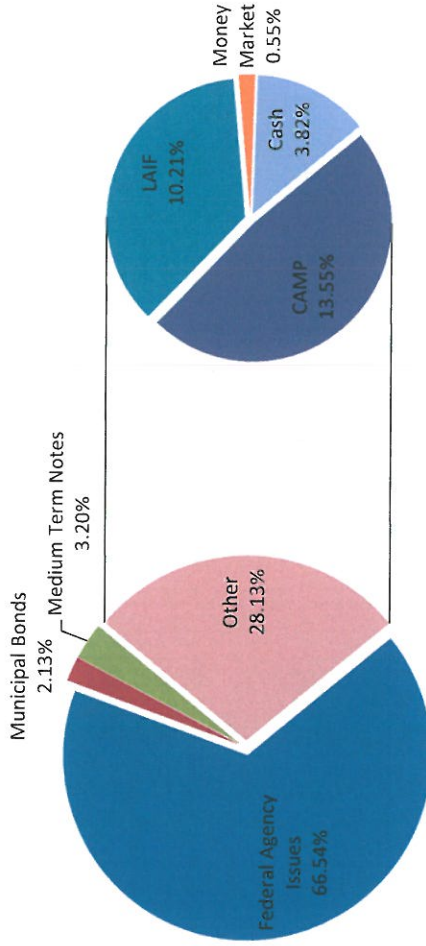
Description	CUSIP	Settlement Date	Face Amount Shares	Market Value	Book Value	Cost Value	Moody's	S&P	YTM @ Cost	Days To Maturity
Other:										
Employee Retirement System										
LAIF LGIP	LGIP1005	6/30/2011	3,427,847	3,427,847	3,427,847	3,427,847	NR	NR	2.00	1
Subtotal/Average			3,427,847	3,427,847	3,427,847	3,427,847				
FERC										
LAIF LGIP	LGIP1001	6/30/2011	2,000,000	2,000,000	2,000,000	2,000,000	NR	NR	2.00	1
Subtotal/Average			2,000,000	2,000,000	2,000,000	2,000,000				
DSRF Water 2008A										
Dreyfus MM	MM6999	6/30/2011	344,749	344,749	344,749	344,749	Aaa	AAA	1.59	1
Subtotal/Average			344,749	344,749	344,749	344,749				
DSRF Water 2010A										
Dreyfus MM	MM6999	6/30/2011	3,322,338	3,322,338	3,322,338	3,322,338	Aaa	AAA	1.59	1
Subtotal/Average			3,322,338	3,322,338	3,322,338	3,322,338				
Cash										
WELLS FARGO Cash	CASH2017	4/1/2017	25,563,212	25,563,212	25,563,212	25,563,212	NR	NR	0.80	1
Subtotal/Average			25,563,212	25,563,212	25,563,212	25,563,212				



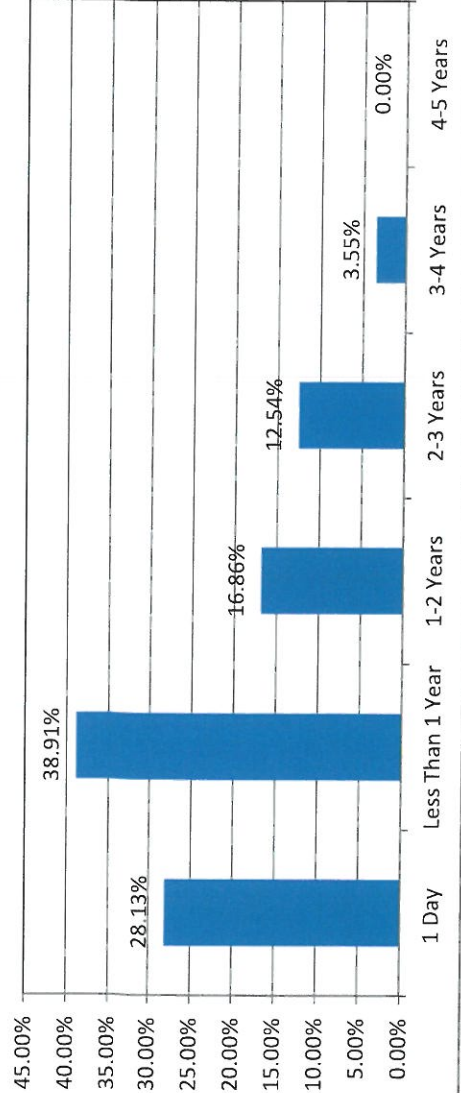
EAST BAY MUNICIPAL UTILITY DISTRICT
Investment Portfolio
Yield and Composition - by Asset Class
September 30, 2018

ATTACHMENT B-1

Portfolio Holding Distribution by Asset Class



Portfolio Holdings Distribution by Maturity Range



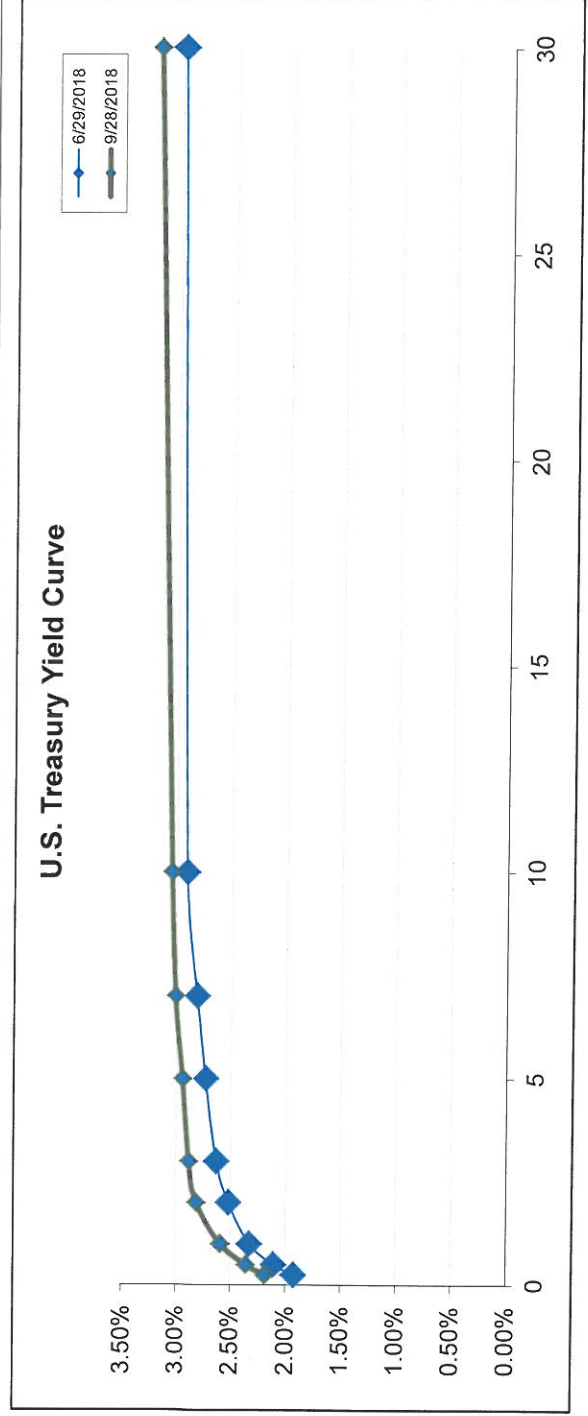
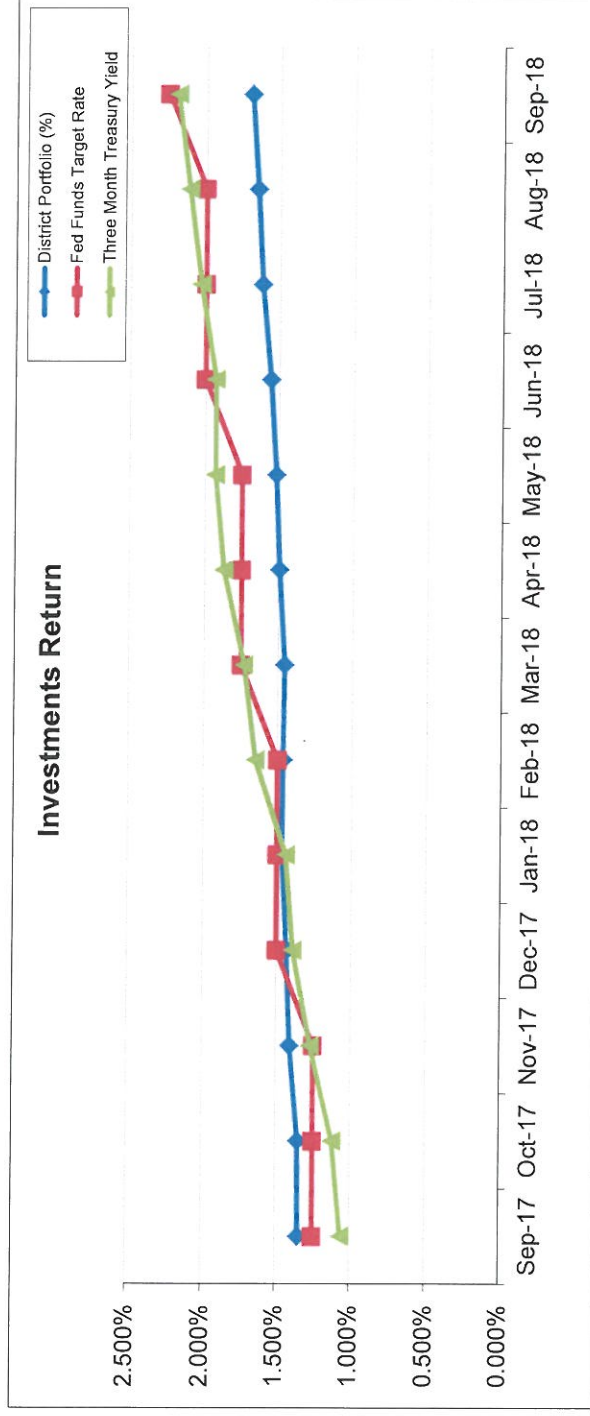
Ratings & Amounts

<u>Agency Bonds</u>			
FAMC	AA+	600,000	
FFCB	AA+	69,841,000	
FHLB	AA+	88,734,705	
FHLMC	AA+	200,587,000	
FNMA	AA+	85,987,000	
<u>Municipal Bonds</u>			
Municipal	AAA category	-	
Municipal	AA category	14,255,000	
<u>Corporate Bonds</u>			
Corporate	AAA category	11,184,000	
Corporate	AA category	10,227,000	
<u>Overnight Liquidity</u>			
CAMP	AAAmf	90,762,000	
MMF	AAAmf	3,694,193	
LAIF	N/A	68,427,847	
Cash	N/A	25,563,212	
		<u>\$</u>	<u>669,862,957</u>



EAST BAY MUNICIPAL UTILITY DISTRICT
Investment Portfolio
Yield and Composition of Investment Portfolio
September 30, 2018

ATTACHMENT B-2





EAST BAY MUNICIPAL UTILITY DISTRICT
Investment Portfolio
Yield and Composition of Investment Portfolio
September 30, 2018

ATTACHMENT B-3

Projected Cash Flow (in \$Millions)

Water System

Month End	Matured Investments	Projected			Matured Reinvested
		Receipts	Disbursements	Cash & Investments	
Sep-18					
Oct-18	38.1	52.5	42.0	521.6	38.1
Nov-18	76.8	50.0	112.0	532.1	76.8
Dec-18	0.5	55.0	42.0	470.0	0.5
Jan-19	2.0	40.1	42.0	483.0	2.0
Feb-19	3.9	38.3	42.0	481.2	3.9
Mar-19	0.0	37.8	42.0	477.5	0.0
				473.3	

Wastewater System

Month End	Matured Investments	Projected			Matured Reinvested
		Receipts	Disbursements	Cash & Investments	
Sep-18					
Oct-18	5.7	8.7	10.2	120.1	5.7
Nov-18	8.3	8.7	19.6	118.6	8.3
Dec-18	0.1	8.7	10.2	107.7	0.1
Jan-19	0.0	8.7	10.2	106.2	0.0
Feb-19	1.2	8.7	10.2	104.7	1.2
Mar-19	0.6	8.7	10.2	103.2	0.6
				101.7	

