



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

375 – 11<sup>th</sup> Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

**AGENDA  
Finance/Administration Committee  
Tuesday, September 27, 2016  
10:00 a.m.  
Training Resource Center**

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

**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 2016 (Skoda)
2. FY16 Key Performance Indicators Report (Skoda)
3. FY17 Insurance Summary (Skoda)
4. Proposed Fiscal Year 2017 Financing Plan (Skoda)
5. Statewide Community Infrastructure Program (Skoda)

**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](http://www.ebmud.com).*



## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: September 22, 2016  
MEMO TO: Board of Directors  
FROM: Alexander R. Coate, General Manager *ARC*  
SUBJECT: Financial Review of Fiscal Year 2016

### INTRODUCTION

Attached is the financial review of Fiscal Year 2016 for the period ending June 30, 2016, which will be discussed at the Finance/Administration Committee meeting on September 27, 2016. This report includes the basic financial statements, a memorandum on internal controls and required communication, the budget performance, and the financial indicators.

### DISCUSSION

One of the District's six Strategic Plan goals is long-term financial stability. An objective of this goal is to enhance the usability, clarity and accessibility of District financial information. Therefore, this single report includes information on the financials as well as the District's budgetary performance for the fiscal year.

#### *Basic Financial Statements*

The annual financial audit for FY16 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 are being published in the Oakland Tribune on September 22 and 29, 2016. 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. 72 – Fair Value Measurement and Application in fiscal year ended June 30, 2016. GASB No. 72 requires a new table disclosing techniques used to value cash and investments. The Fair Value adjustment for FY16 was a reduction of \$269,000 in cash and investments which totaled \$473 million. The new table provides enhanced transparency for the user of the District's annual audited financial statements.

#### *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 normal revenues of \$474.4 million were less than budget by \$30.8 million. Normal operating expenses were less than budget by approximately \$17.0 million. Normal water sales were \$52.9 million less than budget, but were partially offset by other revenue sources greater than budget. Due to the drought, the fiscal year-end billed water consumption was 128.1 MGD compared to the budgeted consumption of 151 MGD. Since drought conditions are temporary in nature, revenues and expenses associated with the drought are tracked separately from normal weather operations. Revenues associated with the drought including the excessive use penalty were \$51.8 million which is excluded from the normal water sales revenue. The drought cost approximately \$75 million, which included lost water sales revenue and \$23.9 million of added operational costs such as the purchase and treatment of supplemental water supplies and conservation outreach. The added operational costs were less than budgeted primarily due to a lower volume of water purchases than anticipated.

At the Mid-Cycle Budget Workshop, the FY16 Water System year-end projection included a possible drawdown of rate stabilization funds of approximately \$11.6 million to maintain the District's policy level for debt coverage of 1.6. Actual year-end revenues and expense savings were stronger than anticipated which eliminated the need to drawdown any rate stabilization funds in FY16.

Total Wastewater System revenues of \$121.8 million were greater than budgeted by \$2.5 million. Resource Recovery revenue was \$3.6 million greater than budget. Operating expenses were less than budget by \$5.7 million.

### *Financial Indicators*

Water and Wastewater systems' overall financial conditions remain sound. Both systems exceeded District Policy 4.02 target goals due to actions taken to contain operating costs and maintain revenues required to cover reductions in consumption due to the drought. As a result of these proactive actions, 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:SDS:DSK:JC

Attachment

# *Financial Review of Fiscal Year 2016 as of June 30, 2016*



*East Bay Municipal Utility District  
Oakland, California*





## Financial Review of Fiscal Year 2016

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## Financial Review of Fiscal Year 2016

### Executive Summary





## Financial Review of Fiscal Year 2016

### Executive Summary

#### **Introduction**

This annual report summarizes the Water and the Wastewater systems' financial performance for FY16. The scope of this report includes the budgetary performance, financial trends, financial statements, and internal controls review.

Prior to FY15, the various sections of this single report were submitted as individual reports. These reports have been combined into a single report which supports the District's long-term financial stability strategy of enhancing the usability, clarity and accessibility of District financial information.

#### **Summary**

The District continued to face fiscal challenges related to the extended drought conditions and state-mandated conservation during FY16. Despite these challenges, both the Water and Wastewater systems' overall financial condition continue to remain healthy with a stable revenue base and sound reserves.

#### **Discussion**

##### **Basic Financial Statements**

The annual financial audit for FY16 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 are attached. Also in accordance with the MUD Act, summary financial statements for the Water and Wastewater systems are being published in the Oakland Tribune on September 22 and 29, 2016. 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. 72 – Fair Value Measurement and Application in the fiscal year ending June 30, 2016. GASB No. 72 requires a new table disclosing techniques used to value cash and investments. The Fair Value adjustment for FY16 was a reduction of \$269,000 in cash and investments which totaled \$473 million. The new table provides enhanced transparency for the user of the District's annual audited financial statements.

##### ***Balance Sheet***

Water and Wastewater balance sheets remain sound and reflect new Government Accounting Standards Board (GASB) requirements to report the unfunded net pension liability in the liability section as required for the first time in FY15. The District reported \$463 million in pension outstanding liabilities in FY16 up from \$431 million in FY15.



## Financial Review of Fiscal Year 2016

### *Net Position*

Overall net position increased \$118,000 due to the net investment in capital assets.

### *Capital Contributions*

The District's capital contribution was projected to decrease this year compared to last year primarily due to completion of the Seismic Improvement Program and elimination of the associated surcharge. Helping to offset this reduction was an increase in System Capacity Charge revenues due to the improving economy and housing market.

### *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 decreased slightly from 75.45% in FY15 to 74.93% in FY16.

### 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* normal revenues of \$474.4 million were less than budget by \$30.8 million, and normal operating expenses were less than budget by approximately \$17.0 million. Normal water sales were \$52.9 million less than budget, but were partially offset by other revenue sources greater than budget. Due to the drought, the fiscal year-end billed water consumption was 128.1 MGD compared to the budgeted consumption of 151 MGD. Since drought conditions are temporary in nature, revenues and expenses associated with the drought are tracked separately from normal weather operations. Revenues associated with the drought including the excessive use penalty were \$51.8 million which is excluded from the normal water sales revenue. The drought cost approximately \$75 million, which included lost water sales revenue and \$23.9 million of added operational costs such as the purchase and treatment of supplemental water supplies and conservation outreach. The added operational costs were less than budgeted primarily due to a lower volume of water purchases than anticipated.

Actual year-end revenues and expense savings were stronger than anticipated which eliminated the need to drawdown any rate stabilization funds in FY16.

Total *Wastewater System* revenues of \$121.8 million were greater than budget by \$2.5 million. Resource Recovery revenue was \$3.6 million greater than budget. Operating expenses were less than budget by \$5.7 million.



## Financial Review of Fiscal Year 2016

### Financial Indicators

Water and Wastewater systems' overall financial conditions remain sound. Both systems exceeded District Policy 4.02 target goals due to actions taken to contain operating costs and maintain revenues required to cover reductions in consumption due to the drought. As a result of these proactive actions, 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.

### **Beyond Fiscal Year 2016**

As we enter FY17, the challenge of managing a significant decrease in water sales compared to budget will continue. Staff will monitor expenses during FY17 and provide the Board with a semi-annual budget report including end of year projections.

As we prepare for the FY18 & FY19 budget cycle, staff will continue to focus on prudent assumptions for water sales, meeting financial metrics consistent with Board policies, and maintaining the District's credit ratings to ensure the long-term financial stability of the District. A series of budget workshops have been scheduled with the Board to consider effective long-term strategies to support the FY18 & FY19 biennial budget priorities.





## Financial Review of Fiscal Year 2016

### Basic Financial Statements





**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**BASIC FINANCIAL STATEMENTS**  
**FOR THE YEARS ENDED JUNE 30, 2016 AND 2015**

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**EAST BAY MUNICIPAL UTILITY DISTRICT  
BASIC FINANCIAL STATEMENTS  
For the Years Ended June 30, 2016 and 2015**

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## 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, 2016 and 2015, 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 audit. 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, 2016 and 2015, and the respective changes in the financial positions and cash flows, where applicable, thereof for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

## ***Change in Accounting Principle***

Management adopted the provisions of Governmental Accounting Standards Board Statement No. 72 – *Fair Value Measurement and Application*, which became effective during the year ended June 30, 2016 as discussed in Note 1S to the financial statements. This statement had no effect on the financial statements.

The emphasis of this 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 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 this information in accordance with generally accepted auditing standards 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 East Bay Municipal Utility District's basic financial statements as a whole. 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 financial statements. The 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 financial statements themselves, and other additional procedures in accordance with generally accepted auditing standards 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 31, 2016 on our consideration of the East Bay Municipal Utility 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 31, 2016

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# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

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, 2016. 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 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 miles service area including the communities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District and serves a population of about 680,000. 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, 2016

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 29 to 76 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 79 to 82 of this report.

## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2016

## FINANCIAL ANALYSIS

### *Financial Highlights*

In fiscal year 2016, 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 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 \$1.4 billion (*net position*).

Net position increased by \$119 million or 9% during the fiscal year.

Capital assets increased by \$124 million or 3% to \$4.5 billion.

Operating revenue increased by \$62 million or 13% to \$525 million.

Operating expense increased by \$30 million or 8% to \$415 million.

Non-operating net expense decreased by \$9 million or 14% to (\$57) million.

Capital contributions decreased by \$10 million or 13% from the prior fiscal year.

### *Financial Position*

In the current year, the District's total net position increased by \$119 million or 9% during the fiscal year. Current and other assets decreased by \$90 million or 10%. Capital assets increased by \$124 million or 3%. By far the largest portion of the District's net position, 89% or \$1.2 billion, represents its investment in capital assets necessary to provide services.

- The Water System's net position increased by \$94 million or 9% during the year ended June 30, 2016.
- The Wastewater System's net position increased by \$25 million or 10% during the year ended June 30, 2016.

In the previous fiscal year, the District's total net position increased by \$87 million or 5% before \$477 million decrease in prior period adjustment per implementation of GASB 68. Current and other assets increased by \$79 million or 10%. Capital assets increased by \$121 million or 3%. By far the largest portion of the District's net position, 82% or \$1.0 billion, represents its investment in capital assets necessary to provide services.

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

Table 1 shows the District's net position for the fiscal years ended June 30, 2016, 2015 and 2014:

<b>Table 1</b> Net Position Water and Wastewater June 30, 2016 and 2015 (In thousands)				
	<b>2016</b>	<b>2015</b>	<b>Variance</b>	<b>%</b>
Current and other assets	\$ 776,898	866,777	(89,879)	(10)%
Capital assets	4,489,702	4,366,034	123,668	3%
Deferred outflow of resources	148,078	104,496	43,582	42%
Total assets and deferred outflow	5,414,678	5,337,307	77,371	1%
Current and other liabilities	729,648	677,370	52,278	8%
Long-term liabilities	3,173,637	3,256,459	(82,822)	(3)%
Deferred inflow of resources	119,093	129,827	(10,734)	(8)%
Total liabilities and deferred inflow	4,022,378	4,063,656	(41,278)	(1)%
Net position:				
Net investment in capital assets	1,249,549	1,047,315	202,234	19%
Restricted	272,138	276,009	(3,871)	(1)%
Unrestricted	(129,387)	(49,673)	(79,714)	160%
Total net position	\$ 1,392,300	1,273,651	118,649	9%

Net Position Water and Wastewater June 30, 2015 and 2014 (In thousands)				
	<b>2015</b>	<b>2014</b>	<b>Variance</b>	<b>%</b>
Current and other assets	\$ 866,777	788,030	78,747	10%
Capital assets	4,366,034	4,244,628	121,406	3%
Deferred outflow of resources	104,496	45,753	58,743	128%
Total assets and deferred outflow	5,337,307	5,078,411	258,896	5%
Current and other liabilities	677,370	211,351	466,019	220%
Long-term liabilities	3,256,459	3,133,074	123,385	4%
Deferred inflow of resources	129,827	70,304	59,523	85%
Total liabilities and deferred inflow	4,063,656	3,414,729	648,927	19%
Net position:				
Net investment in capital assets	1,047,315	1,083,394	(36,079)	(3)%
Restricted	276,009	297,740	(21,731)	(7)%
Unrestricted	(49,673)	282,548	(332,221)	(118)%
Total net position	\$ 1,273,651	1,663,682	(390,031)	(23)%

## **EAST BAY MUNICIPAL UTILITY DISTRICT**

### **Management's Discussion and Analysis**

June 30, 2016

#### ***Results of Operations***

In the current fiscal year, the District's total operating revenue of \$525 million for the year increased by \$62 million and total operating expense of \$415 million for the year increased by \$30 million. The change in net position (including capital contributions) increased from \$87 million in the previous fiscal year to \$119 million in the current fiscal year. The District's total net position increased from \$1,274 million to \$1,392 million during the current fiscal year.

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

- Water revenues increased by \$59 million, reflecting an 8% water rate increase offset by a 13.8% decrease in billed water consumption and an additional \$51 million drought surcharge in the current fiscal year.
- Wastewater revenues remained stable in the current fiscal year compared to the prior year.
- Operating expense increased by \$30 million, primarily due to a \$21 million increase in supplemental water purchase and a \$6 million increase in water treatment and distribution expenses to deliver and treat the additional water supply from the Sacramento River.
- Non-operating net expense decreased by \$9 million primarily due to a \$15 million decrease in bond interest expense resulting from lower net adjusted interest expense and no non-recurring interest expense paid for advance refunding as in the prior fiscal year. The decrease in expense was offset by the \$3 million decrease of equity in JPA partnership fund compared to additional equity recognized in the prior fiscal year and \$3 million decrease in other income from lower land sales in the current fiscal year.
- Capital contributions decreased by \$10 million primarily reflecting a decrease of \$22 million in seismic improvement surcharges, which have now ended, offset by a \$10 million increase in system capacity charges and an increase of \$2 million in grants and other reimbursements in the current fiscal year compared to the prior year. Page 16 contains additional capital contributions information.

## **EAST BAY MUNICIPAL UTILITY DISTRICT**

### **Management's Discussion and Analysis**

June 30, 2016

In the previous fiscal year, the District's total operating revenue of \$464 million for the year increased by \$2 million and total operating expense of \$385 million for the year decreased by \$21 million. The change in net position (including capital contributions) increased from \$35 million in the previous fiscal year to \$87 million in fiscal year 2015. The District's total net position decreased from \$1,664 million to \$1,274 million during fiscal year 2015 after \$477 million prior period adjustment per implementation of GASB 68.

The major components of the District's results of operations in fiscal year 2015 were:

- Water revenues decreased by \$5 million, mainly reflecting an 11.4% decrease in billed water consumption offset by a 9.5% water rate increase in fiscal year 2015.
- Wastewater revenues increased by \$4 million, mainly reflecting an 8.5% rate increase in fiscal year 2015.
- Operating expense decreased by \$21 million, primarily as a result of negative \$21 million pension expense per implementation of GASB 68 in fiscal year 2015. Due to the drought, raw water expenses increased by \$2 million and water treatment and distribution expenses increased by \$2 million as a result of purchase and treatment of supplemental water supply. General administration expenses decreased by \$12 million primarily as a result of a \$5 million decrease in amortization expenses and additional \$10 million capitalized administration expenses.
- Non-operating net expense decreased by \$4 million primarily due to a \$3 million in bond interest expense paid for advance refunding offset by the \$8 million reclassification of the change of equity in JPA partnership fund from amortization expense to non-operating expense in the prior fiscal year.
- Capital contributions increased by \$24 million primarily reflecting an increase of \$11 million in system capacity charges and \$12 million in earned contributions on constructions received in fiscal year 2015 compared to the prior year. Page 16 contains additional capital contributions information.

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

Table 2 shows changes in the District's net position for the fiscal years ended June 30, 2016, 2015, and 2014:

**Table 2**

Changes in Net Position

Water and Wastewater

June 30, 2016 and 2015

(In thousands)

	<u>2016</u>	<u>2015</u>	<u>Variance</u>	<u>%</u>
Operating Revenue:				
Water	\$ 421,240	362,136	59,104	16%
Sewer	77,542	76,417	1,125	1%
Power	4,771	3,303	1,468	44%
Wet weather facilities charges	21,918	21,809	109	0%
Total operating revenue	<u>525,471</u>	<u>463,665</u>	<u>61,806</u>	13%
Operating Expense:				
Raw water	64,386	43,538	20,848	48%
Water treatment & distribution	106,484	100,015	6,469	6%
Recreation areas, net	5,581	5,294	287	5%
Sewer lines & pumps	13,407	13,943	(536)	(4)%
Sewer treatment plant operations	33,292	32,478	814	3%
Customer accounting & collecting	19,110	19,869	(759)	(4)%
Financial and risk management	19,648	19,308	340	2%
Facilities management	6,329	6,858	(529)	(8)%
General administration	49,686	45,692	3,994	9%
Pension expense	(22,776)	(20,596)	(2,180)	11%
Depreciation (excluding amounts reported within the Water and Wastewater operations)	119,791	118,309	1,482	1%
Total operating expense	<u>414,938</u>	<u>384,708</u>	<u>30,230</u>	8%
Net operating income (expense)	110,533	78,957	31,576	40%
Nonoperating income (expense):				
Investment income	2,675	3,810	(1,135)	(30)%
Taxes & subventions	37,808	36,390	1,418	4%
Interest & amortization of bond expenses, net	(109,340)	(124,347)	15,007	(12)%
Increase (decrease) of Equity in JPA partnership fund	(3,081)	(360)	(2,721)	756%
Other income	15,050	18,169	(3,119)	(17)%
Total nonoperating income (expense), net	<u>(56,888)</u>	<u>(66,338)</u>	<u>9,450</u>	(14)%
Income (loss) before contributions	53,645	12,619	41,026	325%
Capital contributions	65,004	74,596	(9,592)	(13)%
Change in net position	118,649	87,215	31,434	36%
Total net position – beginning	1,273,651	1,663,682	(390,031)	(23)%
Prior period adjustment per implementation of GASB 68	—	(477,246)	477,246	(100)%
Total net position – ending	<u>\$ 1,392,300</u>	<u>1,273,651</u>	<u>118,649</u>	9%

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

**Table 2 (Continued)**

Changes in Net Position

Water and Wastewater

June 30, 2015 and 2014

(In thousands)

	<u>2015</u>	<u>2014</u>	<u>Variance</u>	<u>%</u>
Operating Revenue:				
Water	\$ 362,136	367,547	(5,411)	(1)%
Sewer	76,417	72,345	4,072	6%
Power	3,303	2,479	824	33%
Wet weather facilities charges	21,809	19,389	2,420	12%
Total operating revenue	<u>463,665</u>	<u>461,760</u>	<u>1,905</u>	0%
Operating Expense:				
Raw water	43,538	41,066	2,472	6%
Water treatment & distribution	100,015	97,610	2,405	2%
Recreation areas, net	5,294	5,166	128	2%
Sewer lines & pumps	13,943	13,658	285	2%
Sewer treatment plant operations	32,478	31,748	730	2%
Customer accounting & collecting	19,869	20,323	(454)	(2)%
Financial and risk management	19,308	17,019	2,289	13%
Facilities management	6,858	9,054	(2,196)	(24)%
General administration	45,692	57,724	(12,032)	(21)%
Pension expense	(20,596)	—	(20,596)	N/A
Depreciation (excluding amounts reported within the Water and Wastewater operations)	118,309	112,662	5,647	5%
Total operating expense	<u>384,708</u>	<u>406,030</u>	<u>(21,322)</u>	(5)%
Net operating income (expense)	78,957	55,730	23,227	42%
Nonoperating income (expense):				
Investment income	3,810	2,512	1,298	52%
Taxes & subventions	36,390	35,373	1,017	3%
Interest & amortization of bond expenses, net	(124,347)	(121,069)	(3,278)	3%
Increase (decrease) of Equity in JPA partnership fund	(360)	(8,146)	7,786	(96)%
Other income	18,169	20,501	(2,332)	(11)%
Total nonoperating income (expense), net	<u>(66,338)</u>	<u>(70,829)</u>	<u>4,491</u>	(6)%
Income (loss) before contributions	12,619	(15,099)	27,718	(184)%
Capital contributions	<u>74,596</u>	<u>50,231</u>	<u>24,365</u>	49%
Change in net position	87,215	35,132	52,083	148%
Total net position – beginning	1,663,682	1,628,550	35,132	2%
Prior period adjustment per implementation of GASB 68	<u>(477,246)</u>	<u>—</u>	<u>(477,246)</u>	N/A
Total net position – ending	<u>\$ 1,273,651</u>	<u>1,663,682</u>	<u>(390,031)</u>	(23)%



# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

### *Liquidity*

The District had \$473 million in combined current and non-current District Cash and Investments as of June 30, 2016, a decrease of \$96 million compared to \$570 million as of June 30, 2015. Components of cash and investments for the year ended June 30, 2016 were:

- Water System total combined current and non-current cash and investments decreased by \$91 million or 19% compared to the previous fiscal year. Net increase (decrease) in cash and cash equivalents decreased by \$363 million compared to the prior year. This was primarily due to an increase of \$25.6 million from operating activities, decrease of \$203 million from capital and related financing activities from the previous year's new revenue bond issuance, and a decrease of \$187 million from the reallocation of investments between short-term and long-term.
- Wastewater System total combined current and non-current cash and investments decreased by \$5 million or 5% compared to the same date of the previous fiscal year. For the year ended June 30, 2016, net increase (decrease) in cash and cash equivalents decreased by \$16 million compared to the prior year. This was primarily due to a decrease of \$16 million from the reallocation of investments between short-term and long-term.

Table 3 shows the District's cash flow for the fiscal years ended June 30, 2016, 2015 and 2014:

<b>Table 3</b> Cash Flows Water and Wastewater System June 30, 2016 and 2015 (In thousands)				
	<b>2016</b>	<b>2015</b>	<b>Variance</b>	<b>%</b>
Cash and cash equivalents:				
Beginning of year	\$ 415,831	247,517	168,314	68%
Net cash provided by operating activities	246,911	218,125	28,786	13%
Net cash provided by financing activities	37,808	36,390	1,418	4%
Net cash provided by (used in) capital and related financing activities	(383,496)	(177,188)	(206,308)	116%
Net cash provided by (used in) investing activities	(112,354)	90,987	(203,341)	(223)%
Net increase (decrease) in cash and cash equivalents	(211,131)	168,314	(379,445)	(225)%
End of period	<u>204,700</u>	<u>415,831</u>	<u>(211,131)</u>	(51)%
Investments:				
Beginning of year	153,682	240,718	(87,036)	(36)%
Net increase (decrease) in investments	<u>114,760</u>	<u>(87,036)</u>	<u>201,796</u>	(232)%
End of period	<u>268,442</u>	<u>153,682</u>	<u>114,760</u>	75%
Total District Cash and Investments	<u>\$ 473,142</u>	<u>569,513</u>	<u>(96,371)</u>	(17)%

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

**Table 3 (Continued)**  
Cash Flows  
Water and Wastewater System  
June 30, 2015 and 2014  
(In thousands)

	<u>2015</u>	<u>2014</u>	<u>Variance</u>	<u>%</u>
Cash and cash equivalents:				
Beginning of year	\$ 247,517	217,601	29,916	14%
Net cash provided by operating activities	218,125	234,083	(15,958)	(7)%
Net cash provided by financing activities	36,390	35,373	1,017	3%
Net cash provided by (used in) capital and related financing activities	(177,188)	(260,545)	83,357	(32)%
Net cash provided by (used in) investing activities	90,987	21,005	69,982	333%
Net increase (decrease) in cash and cash equivalents	<u>168,314</u>	<u>29,916</u>	<u>138,398</u>	463%
End of period	<u>415,831</u>	<u>247,517</u>	<u>168,314</u>	68%
Investments:				
Beginning of year	240,718	259,341	(18,623)	(7)%
Net increase (decrease) in investments	<u>(87,036)</u>	<u>(18,623)</u>	<u>(68,413)</u>	367%
End of period	<u>153,682</u>	<u>240,718</u>	<u>(87,036)</u>	(36)%
Total District Cash and Investments	<u>\$ 569,513</u>	<u>488,235</u>	<u>81,278</u>	17%

### ***Cash and Investments by Fund***

In fiscal years 2016 and 2015, 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 used \$95 million in capital reserves to fund capital projects and equipment, and increased reserves of \$4 million in funds received for construction. Wastewater System used \$5 million in capital reserves to fund capital projects and equipment.

In the previous fiscal year, significant activities were as follows: Water System reserved an additional \$10 million in revenues in the rate stabilization fund, additional \$3 million in working capital, additional \$91 million in capital reserve, and released \$17 million debt service reserve fund due to revenue bonds' refunding. Wastewater System reserved an additional \$7 million in revenues in the rate stabilization fund, used \$7 million in capital reserve to fund capital projects and equipment, released \$3 million in debt service reserve fund due to refunding of the related revenue bonds, and released \$2 million in funds received for construction for the Private Sewer Lateral Incentive program.

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 on page 32.

Table 4 shows the District's cash and investment by fund for the fiscal years ended June 30, 2016, 2015 and 2014:

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

**Table 4**

Cash and Investment by Fund

Water and Wastewater

June 30, 2016 and 2015

(In thousands)

	<b>Water System</b>		<b>Wastewater System</b>		<b>Total</b>		<b>Increase (decrease)</b>	
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>Amount</b>	<b>%</b>
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	62,100	61,700	16,400	15,800	78,500	77,500	1,000	1%
Self-insurance	5,000	5,000	1,700	1,700	6,700	6,700	—	0%
Workers compensation	3,200	3,200	600	600	3,800	3,800	—	0%
Total operating reserves	<u>165,300</u>	<u>164,900</u>	<u>42,790</u>	<u>42,190</u>	<u>208,090</u>	<u>207,090</u>	<u>1,000</u>	<u>0%</u>
Capital reserves:								
Reserved for capital projects	168,768	262,074	23,884	30,239	192,652	292,313	(99,661)	(34)%
Reserve funded CIP - Wastewater	—	—	14,530	14,472	14,530	14,472	58	0%
Vehicle replacements	5,300	7,600	—	—	5,300	7,600	(2,300)	(30)%
Equipment replacements	1,063	157	5,779	4,858	6,842	5,015	1,827	36%
Total capital reserves	<u>175,131</u>	<u>269,831</u>	<u>44,193</u>	<u>49,569</u>	<u>219,324</u>	<u>319,400</u>	<u>(100,076)</u>	<u>(31)%</u>
Total Unrestricted cash and investment	<u>340,431</u>	<u>434,731</u>	<u>86,983</u>	<u>91,759</u>	<u>427,414</u>	<u>526,490</u>	<u>(99,076)</u>	<u>(19)%</u>
Restricted Cash and Investments								
Bond interest and redemption fund	5	796	18	87	23	883	(860)	(97)%
Debt service reserve fund	12,726	12,672	—	—	12,726	12,672	54	0%
Funds received for construction	30,243	26,709	—	—	30,243	26,709	3,534	13%
FERC partnership fund	2,201	2,225	—	—	2,201	2,225	(24)	(1)%
Monetary reserve	535	534	—	—	535	534	1	0%
Total restricted cash and investments	<u>45,710</u>	<u>42,936</u>	<u>18</u>	<u>87</u>	<u>45,728</u>	<u>43,023</u>	<u>2,705</u>	<u>6%</u>
Total District Cash and Investments	<u>\$ 386,141</u>	<u>477,667</u>	<u>87,001</u>	<u>91,846</u>	<u>473,142</u>	<u>569,513</u>	<u>(96,371)</u>	<u>(17)%</u>

Cash and Investment by Fund

Water and Wastewater

June 30, 2015 and 2014

(In thousands)

	<b>Water System</b>		<b>Wastewater System</b>		<b>Total</b>		<b>Increase (decrease)</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>Amount</b>	<b>%</b>
Unrestricted cash and investment								
Operating reserves:								
Rate stabilization fund	\$ 95,000	85,000	24,090	17,590	119,090	102,590	16,500	16%
Working capital reserve	61,700	59,200	15,800	15,200	77,500	74,400	3,100	4%
Self-insurance	5,000	5,000	1,700	1,700	6,700	6,700	—	0%
Workers compensation	3,200	3,200	600	600	3,800	3,800	—	0%
Total operating reserves	<u>164,900</u>	<u>152,400</u>	<u>42,190</u>	<u>35,090</u>	<u>207,090</u>	<u>187,490</u>	<u>19,600</u>	<u>10%</u>
Capital reserves:								
Reserved for capital projects	262,074	174,307	30,239	36,836	292,313	211,143	81,170	38%
Reserve funded CIP - Wastewater	—	—	14,472	14,430	14,472	14,430	42	0%
Vehicle replacements	7,600	4,625	—	—	7,600	4,625	2,975	64%
Equipment replacements	157	310	4,858	4,907	5,015	5,217	(202)	(4)%
Total capital reserves	<u>269,831</u>	<u>179,242</u>	<u>49,569</u>	<u>56,173</u>	<u>319,400</u>	<u>235,415</u>	<u>83,985</u>	<u>36%</u>
Total Unrestricted cash and investment	<u>434,731</u>	<u>331,642</u>	<u>91,759</u>	<u>91,263</u>	<u>526,490</u>	<u>422,905</u>	<u>103,585</u>	<u>24%</u>
Restricted Cash and Investments								
Bond interest and redemption fund	796	848	87	109	883	957	(74)	(8)%
Debt service reserve fund	12,672	29,368	—	2,538	12,672	31,906	(19,234)	(60)%
Funds received for construction	26,709	27,447	—	2,214	26,709	29,661	(2,952)	(10)%
FERC partnership fund	2,225	2,247	—	—	2,225	2,247	(22)	(1)%
Monetary reserve	534	534	—	—	534	534	—	0%
ABAG program restricted fund	—	25	—	—	—	25	(25)	(100)%
Total restricted cash and investments	<u>42,936</u>	<u>60,469</u>	<u>87</u>	<u>4,861</u>	<u>43,023</u>	<u>65,330</u>	<u>(22,307)</u>	<u>(34)%</u>
Total District Cash and Investments	<u>\$ 477,667</u>	<u>392,111</u>	<u>91,846</u>	<u>96,124</u>	<u>569,513</u>	<u>488,235</u>	<u>81,278</u>	<u>17%</u>

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

### Capital Contributions

Capital contributions primarily consist of System Capacity Charges (SCC) and Seismic Improvement Program (SIP) surcharges. 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 Fee is treated as unrestricted funds and pays for the share of Wastewater facilities attributed to new customers.

The Seismic Improvement Program (SIP) surcharge was implemented in 1994 to fund the District's SIP. The object of the program was to ensure that water service would be available after a seismic event to meet fire safety needs and to provide continued service to residential, commercial and industrial customers. The charge was anticipated to be in place through February 2025, but as a result of lower than expected construction costs, lower than expected financing costs, and higher revenues than anticipated, by the end of fiscal year 2015 the District has collected sufficient funds from the SIP surcharge to cover project costs. Accordingly, fiscal year 2015 was the last year that the District levied the seismic surcharge. No seismic surcharge revenues are being budgeted for fiscal year 2016 or fiscal year 2017.

System capacity charges increased by \$10 million due to rising development activities as the housing industry continues its rebound from the most recent recession.

Table 5 shows the District's capital contributions received for the fiscal years ended June 30, 2016, 2015 and 2014:

**Table 5**  
Capital Contributions  
Water and Wastewater  
June 30, 2016 and 2015  
(In thousands)

	<b>Water System</b>		<b>Wastewater System</b>		<b>Total</b>		<b>Increase (decrease)</b>	
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>Amount</b>	<b>%</b>
System capacity charges	\$ 39,321	29,725	3,142	2,786	42,463	32,511	9,952	31%
Earned contributions on construction	17,045	17,083	747	—	17,792	17,083	709	4%
Seismic improvement surcharge	33	22,164	—	—	33	22,164	(22,131)	(100)%
Grants and other reimbursements	4,392	2,557	324	281	4,716	2,838	1,878	66%
<b>Totals</b>	<b>\$ 60,791</b>	<b>71,529</b>	<b>4,213</b>	<b>3,067</b>	<b>65,004</b>	<b>74,596</b>	<b>(9,592)</b>	<b>(13)%</b>

Capital Contributions  
Water and Wastewater  
June 30, 2015 and 2014  
(In thousands)

	<b>Water System</b>		<b>Wastewater System</b>		<b>Total</b>		<b>Increase (decrease)</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>Amount</b>	<b>%</b>
System capacity charges	\$ 29,725	20,365	2,786	806	32,511	21,171	11,340	54%
Earned contributions on construction	17,083	5,240	—	—	17,083	5,240	11,843	226%
Seismic improvement surcharge	22,164	22,682	—	—	22,164	22,682	(518)	(2)%
Grants and other reimbursements	2,557	752	281	386	2,838	1,138	1,700	149%
<b>Totals</b>	<b>\$ 71,529</b>	<b>49,039</b>	<b>3,067</b>	<b>1,192</b>	<b>74,596</b>	<b>50,231</b>	<b>24,365</b>	<b>49%</b>

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

### CAPITAL ASSETS

Table 6 shows the District's capital assets for the fiscal years ended June 30, 2016, 2015 and 2014:

**Table 6**

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2016 and 2015

(In thousands)

	Water System		Wastewater System		Total		Increase/(decrease)	
	2016	2015	2016	2015	2016	2015	Amount	%
Structures, buildings, and equipment	\$ 3,434,454	3,316,559	608,946	595,549	4,043,400	3,912,108	131,292	3.4%
Land and rights of way	58,733	58,445	21,191	21,017	79,924	79,462	462	0.6%
Construction work in progress	302,973	309,445	63,405	65,019	366,378	374,464	(8,086)	(2.2)%
Totals	<u>\$ 3,796,160</u>	<u>3,684,449</u>	<u>693,542</u>	<u>681,585</u>	<u>4,489,702</u>	<u>4,366,034</u>	<u>123,668</u>	2.8%

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2015 and 2014

(In thousands)

	Water System		Wastewater System		Total		Increase/(decrease)	
	2015	2014	2015	2014	2015	2014	Amount	%
Structures, buildings, and equipment	\$ 3,316,559	3,269,155	595,549	597,687	3,912,108	3,866,842	45,266	1.2%
Land and rights of way	58,445	55,274	21,017	20,231	79,462	75,505	3,957	5.2%
Construction work in progress	309,445	243,219	65,019	59,062	374,464	302,281	72,183	23.9%
Totals	<u>\$ 3,684,449</u>	<u>3,567,648</u>	<u>681,585</u>	<u>676,980</u>	<u>4,366,034</u>	<u>4,244,628</u>	<u>121,406</u>	2.9%

The District had \$4.5 billion (net of accumulated depreciation) invested in a broad range of utility capital assets as of June 30, 2016. Total capital assets were \$4.4 billion as of June 30, 2015. 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 above*). In the current fiscal year, capital assets increased by \$124 million or 2.8% over the prior fiscal year. In fiscal year 2015, capital assets increased \$121 million or 2.9% over fiscal year 2014. Annual changes are consistent with the District's capital improvement program.

## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2016

The Water System had \$3.8 billion (net of accumulated depreciation) invested in a broad range of utility capital assets as of June 30, 2016. 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 \$694 million (net of accumulated depreciation) invested in a broad range of utility capital assets as of June 30, 2016. The investment in capital assets includes land, buildings, improvements, power generation, wastewater and wet weather treatment facilities, machinery and equipment.

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	\$	42,445
Pumping Plant Rehabilitation		39,044
Treatment Plant Upgrades		25,540
Reservoir Rehab/Maintenance		20,753
Summit Pressure Zone Improve		17,502
Addl Supplemental Supply Projs		16,989
SRV Recycled Water Program		13,312
Dam Seismic Upgrades		9,605
Water Conservation Project		7,102
WTTIP WTP Improvements		6,460
Pipeline Relocations		6,249
Pardee/Cam Rec Areas Impr Plan		5,947
Raw Water Studies and Improves		5,930
Large Diameter Pipelines		5,749
West of Hills Transmission		4,569
Srvs Latl Repl Polybutylene		4,355
Open Cut Reservoir Rehab		4,148
East Bayshore		3,957
Distribution System Upgrades		3,679
Reservoir Tower Modifications		3,581

#### **Wastewater System:**

Wood St Sewer Intercept Rehab	\$	20,382
Treatment Plant Infrastructure		7,904
Resource Recovery Project		6,582
PGS Expansion		5,821
Infiltration/Inflow Contrl Prj		4,695
Digester Upgrade		3,553
DCS Upgrade		3,162
Routine Cap Equip Replacement		1,739
MWWTP Master Plan		1,601
Odor Control Improvements		1,184
PS Q FM Dual-Mode Operation		1,109

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2016

### DEBT ADMINISTRATION

The District had total long-term debt outstanding of \$3.2 billion as of June 30, 2016, a 2% decrease from June 30, 2015. Total long-term debt outstanding was \$3.3 billion as of June 30, 2015, a 5% increase from June 30, 2014. Components of the District's long-term debt portfolio as of June 30, 2016 are:

- The Water System had total long-term debt outstanding of \$2.8 billion.
- The Wastewater System had total long-term debt outstanding of \$431 million.

Table 7 shows the District's long-term debt outstanding for the fiscal years ended June 30, 2016, 2015 and 2014:

**Table 7**  
Long -Term Debt  
(Net of Unamortized Costs)  
Water and Wastewater  
June 30, 2016 and 2015  
(In thousands)

	<b>Water System</b>		<b>Wastewater System</b>		<b>Total</b>		<b>Increase (decrease)</b>	
	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>2016</b>	<b>2015</b>	<b>Amount</b>	<b>%</b>
General obligation bonds	\$ —	—	7,616	11,500	7,616	11,500	(3,884)	(34)%
Revenue bonds	2,435,000	2,497,539	408,779	419,884	2,843,779	2,917,423	(73,644)	(3)%
Commercial paper	359,800	359,800	15,000	15,000	374,800	374,800	—	0%
Loans	13,957	14,996	—	—	13,957	14,996	(1,039)	(7)%
<b>Totals</b>	<b>\$ 2,808,757</b>	<b>2,872,335</b>	<b>431,395</b>	<b>446,384</b>	<b>3,240,152</b>	<b>3,318,719</b>	<b>(78,567)</b>	<b>(2)%</b>

Long -Term Debt  
(Net of Unamortized Costs)  
Water and Wastewater  
June 30, 2015 and 2014  
(In thousands)

	<b>Water System</b>		<b>Wastewater System</b>		<b>Total</b>		<b>Increase (decrease)</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>	<b>Amount</b>	<b>%</b>
General obligation bonds	\$ —	—	11,500	15,225	11,500	15,225	(3,725)	(24)%
Revenue bonds	2,497,539	2,330,450	419,884	424,748	2,917,423	2,755,198	162,225	6%
Commercial paper	359,800	359,800	15,000	15,000	374,800	374,800	—	0%
Loans	14,996	16,011	—	—	14,996	16,011	(1,015)	(6)%
<b>Totals</b>	<b>\$ 2,872,335</b>	<b>2,706,261</b>	<b>446,384</b>	<b>454,973</b>	<b>3,318,719</b>	<b>3,161,234</b>	<b>157,485</b>	<b>5%</b>

## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2016

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 coverage ratio of at least 1.6 times coverage. As of June 30, 2016, the coverage ratio for Water was 1.65 and for Wastewater was 1.98; the overall District's ratio was 1.70.

*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, 2016, the percentage of debt-funded capital spending for Water was 45% and for Wastewater was 40%; the overall District's percentage was 44%.

*Extended Commercial Paper and Un-hedged Variable Rate Debt:* Limit to 25% of outstanding long-term debt. As of June 30, 2016, the percentage of extended commercial paper and un-hedged variable rate debt compared to total outstanding long-term debt for Water was 14% and for Wastewater was 4%; the overall District's percentage was 12%.

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

**Table 8**

Credit Ratings

Water and Wastewater

June 30, 2016

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:			
General Obligation Bonds	AAA	Aa1	-
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, 2016, the Water System had \$995 million and the Wastewater System had \$204 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, 2016

### **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, 2016 AND JUNE 30, 2015  
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Totals	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Current assets:						
Cash and cash equivalents (Note 2)	\$117,885	\$310,786	\$46,087	\$67,022	\$163,972	\$377,808
Investments (Note 2)	222,546	123,945	40,896	24,737	263,442	148,682
Receivables:						
Customer	46,041	37,241	5,693	5,674	51,734	42,915
Interest and other	3,186	2,845	2,129	2,447	5,315	5,292
Materials and supplies	8,084	7,317	-	-	8,084	7,317
Prepaid Insurance	1,100	1,127	-	-	1,100	1,127
Total current assets	<u>398,842</u>	<u>483,261</u>	<u>94,805</u>	<u>99,880</u>	<u>493,647</u>	<u>583,141</u>
Noncurrent assets:						
Restricted cash and investments (Note 2):						
Cash and cash equivalents	40,710	37,936	18	87	40,728	38,023
Investments	5,000	5,000	-	-	5,000	5,000
Total restricted cash and investments	<u>45,710</u>	<u>42,936</u>	<u>18</u>	<u>87</u>	<u>45,728</u>	<u>43,023</u>
Other assets:						
Equity in JPA partnership fund (Note 2I)	236,968	240,049	-	-	236,968	240,049
Other	272	217	283	347	555	564
Total other assets	<u>237,240</u>	<u>240,266</u>	<u>283</u>	<u>347</u>	<u>237,523</u>	<u>240,613</u>
Capital assets (Note 3):						
Structures, buildings, and equipment	5,131,112	4,919,404	1,027,589	991,663	6,158,701	5,911,067
Less accumulated depreciation	(1,696,658)	(1,602,845)	(418,643)	(396,114)	(2,115,301)	(1,998,959)
Subtotal	<u>3,434,454</u>	<u>3,316,559</u>	<u>608,946</u>	<u>595,549</u>	<u>4,043,400</u>	<u>3,912,108</u>
Land and rights-of-way	58,733	58,445	21,191	21,017	79,924	79,462
Construction in progress	302,973	309,445	63,405	65,019	366,378	374,464
Total capital assets, net	<u>3,796,160</u>	<u>3,684,449</u>	<u>693,542</u>	<u>681,585</u>	<u>4,489,702</u>	<u>4,366,034</u>
Total noncurrent assets	<u>4,079,110</u>	<u>3,967,651</u>	<u>693,843</u>	<u>682,019</u>	<u>4,772,953</u>	<u>4,649,670</u>
Total assets	<u>4,477,952</u>	<u>4,450,912</u>	<u>788,648</u>	<u>781,899</u>	<u>5,266,600</u>	<u>5,232,811</u>
Deferred outflows of resources:						
Accumulated decrease in fair value of hedging derivatives (Note 6)	36,720	23,485	-	-	36,720	23,485
Pension related (Note 8G)	95,210	69,049	16,148	11,962	111,358	81,011
Total deferred outflows	<u>131,930</u>	<u>92,534</u>	<u>16,148</u>	<u>11,962</u>	<u>148,078</u>	<u>104,496</u>
Total assets and deferred outflows	<u>\$4,609,882</u>	<u>\$4,543,446</u>	<u>\$804,796</u>	<u>\$793,861</u>	<u>\$5,414,678</u>	<u>\$5,337,307</u>

(Continued)

EAST BAY MUNICIPAL UTILITY DISTRICT  
BALANCE SHEETS  
JUNE 30, 2016 AND JUNE 30, 2015  
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Totals	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Current liabilities:						
Current maturities of long-term debt and Commercial Paper (Note 5 & 6)	\$52,860	\$49,260	\$13,655	\$13,000	\$66,515	\$62,260
Accounts payable and accrued expenses (Note 4)	77,375	69,218	10,322	9,119	87,697	78,337
Current reserve for claims (Note 9)	8,785	7,814	856	900	9,641	8,714
Accrued interest	9,584	9,279	1,685	1,757	11,269	11,036
Total current liabilities	148,604	135,571	26,518	24,776	175,122	160,347
Noncurrent liabilities:						
Advances for construction	10,558	7,061	-	-	10,558	7,061
OPEB liabilities (Note 8)	21,459	20,034	3,863	3,617	25,322	23,651
Reserve for claims (Note 9)	32,807	29,184	5,329	5,601	38,136	34,785
Net pension liability (Note 8G)	393,304	364,956	69,555	66,363	462,859	431,319
Other liabilities	11,527	14,133	6,124	6,074	17,651	20,207
Long-term liabilities, net of current maturities (Note 5 & 6)	2,755,897	2,823,075	417,740	433,384	3,173,637	3,256,459
Total noncurrent liabilities	3,225,552	3,258,443	502,611	515,039	3,728,163	3,773,482
Total liabilities	3,374,156	3,394,014	529,129	539,815	3,903,285	3,933,829
Deferred inflows of resources						
Derivative instrument (Note 6)	36,720	23,485	-	-	36,720	23,485
Pension related (Note 8G)	67,593	88,483	14,780	17,859	82,373	106,342
Total deferred inflows	104,313	111,968	14,780	17,859	119,093	129,827
Total liabilities and deferred inflows	3,478,469	3,505,982	543,909	557,674	4,022,378	4,063,656
Net position (Note 7):						
Net investment in capital assets	987,402	812,113	262,147	235,202	1,249,549	1,047,315
Restricted for construction (Note 1G)	19,685	19,647	-	-	19,685	19,647
Restricted for debt service (Note 1G)	12,731	13,468	18	87	12,749	13,555
Restricted for JPA	236,968	240,049	-	-	236,968	240,049
Restricted - other (Note 1G)	2,736	2,759	-	-	2,736	2,759
Unrestricted	(128,109)	(50,572)	(1,278)	898	(129,387)	(49,674)
Total net position	1,131,413	1,037,464	260,887	236,187	1,392,300	1,273,651
Total liabilities, deferred inflows and net position	\$4,609,882	\$4,543,446	\$804,796	\$793,861	\$5,414,678	\$5,337,307

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, 2016 AND 2015  
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Total	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Operating revenue:						
Water	\$421,240	\$362,136	-	-	\$421,240	\$362,136
Sewer	-	-	\$77,542	\$76,417	77,542	76,417
Power	3,525	2,210	1,246	1,093	4,771	3,303
Wet weather facilities charges	-	-	21,918	21,809	21,918	21,809
Total operating revenue	<u>424,765</u>	<u>364,346</u>	<u>100,706</u>	<u>99,319</u>	<u>525,471</u>	<u>463,665</u>
Operating expense:						
Raw water	64,386	43,538	-	-	64,386	43,538
Water treatment and distribution	106,484	100,015	-	-	106,484	100,015
Recreation areas, net	5,581	5,294	-	-	5,581	5,294
Sewer lines and pumping	-	-	13,407	13,943	13,407	13,943
Sewer treatment plant operations	-	-	33,292	32,478	33,292	32,478
Customer accounting and collecting	16,595	17,351	2,515	2,518	19,110	19,869
Financial and risk management	19,041	18,560	607	748	19,648	19,308
Facilities management	6,329	6,858	-	-	6,329	6,858
General administration	42,320	37,231	7,366	8,461	49,686	45,692
Pension expense	(18,703)	(17,212)	(4,073)	(3,384)	(22,776)	(20,596)
Depreciation on utility plant and vehicle	97,262	94,111	22,529	24,198	119,791	118,309
Total operating expense	<u>339,295</u>	<u>305,746</u>	<u>75,643</u>	<u>78,962</u>	<u>414,938</u>	<u>384,708</u>
Net operating income	<u>85,470</u>	<u>58,600</u>	<u>25,063</u>	<u>20,357</u>	<u>110,533</u>	<u>78,957</u>
Nonoperating income (expense):						
Investment income	2,183	3,568	492	242	2,675	3,810
Taxes and subventions	29,869	27,922	7,939	8,468	37,808	36,390
Interest and amortization of bond expenses, net of capitalized interest of \$9,841 and \$9,210 for the Water System and \$1,445 and \$1,705 for the Wastewater System in 2016 and 2015, respectively	(92,624)	(99,306)	(16,716)	(25,041)	(109,340)	(124,347)
Increase (decrease) of equity in JPA partnership fund	(3,081)	(360)	-	-	(3,081)	(360)
Other income	11,341	13,782	3,709	4,387	15,050	18,169
Total nonoperating income (expense), net	<u>(52,312)</u>	<u>(54,394)</u>	<u>(4,576)</u>	<u>(11,944)</u>	<u>(56,888)</u>	<u>(66,338)</u>
Income (loss) before capital contributions	<u>33,158</u>	<u>4,206</u>	<u>20,487</u>	<u>8,413</u>	<u>53,645</u>	<u>12,619</u>
Capital contributions	<u>60,791</u>	<u>71,529</u>	<u>4,213</u>	<u>3,067</u>	<u>65,004</u>	<u>74,596</u>
Change in net position	<u>93,949</u>	<u>75,735</u>	<u>24,700</u>	<u>11,480</u>	<u>118,649</u>	<u>87,215</u>
Total net position - beginning	1,037,464	1,363,331	236,187	300,351	1,273,651	1,663,682
Prior period adjustment per implementation of GASB 68 (Note 1R)	-	(401,602)	-	(75,644)	-	(477,246)
Total net position - ending	<u>\$1,131,413</u>	<u>\$1,037,464</u>	<u>\$260,887</u>	<u>\$236,187</u>	<u>\$1,392,300</u>	<u>\$1,273,651</u>

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT  
STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED JUNE 30, 2016 AND 2015  
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Total	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Cash flows from operating activities						
Cash received from customers	\$415,965	\$369,014	\$100,687	\$99,157	\$516,652	\$468,171
Cash received from other income	11,341	13,782	3,709	4,387	15,050	18,169
Cash payments for judgments and claims	(7,787)	(6,516)	(195)	(245)	(7,982)	(6,761)
Cash payments to suppliers for goods and services	(61,081)	(50,715)	(25,467)	(27,523)	(86,548)	(78,238)
Cash payments to employees for services	(162,582)	(155,298)	(27,679)	(27,918)	(190,261)	(183,216)
Net cash provided by operating activities	195,856	170,267	51,055	47,858	246,911	218,125
Cash flows from noncapital financing activities:						
Tax receipts	29,869	27,922	7,939	8,468	37,808	36,390
Net cash provided by financing activities	29,869	27,922	7,939	8,468	37,808	36,390
Capital and related financing activities:						
Capital contributions	60,791	71,529	4,213	3,067	65,004	74,596
Proceeds from advances for construction	3,497	(789)	-	-	3,497	(789)
Proceeds from sale of capital assets	776	2,870	42	-	818	2,870
Net proceeds and premiums from sale of bonds	-	746,871	-	208,103	0	954,974
Acquisition and construction of capital assets	(228,474)	(232,709)	(36,667)	(30,267)	(265,141)	(262,976)
Change in Investment in JPA	-	(149)	-	-	0	(149)
Principal retirement on long-term debt and commercial paper	(63,578)	(562,125)	(14,989)	(198,255)	(78,567)	(760,380)
Amount paid to refunding bond escrow agent	-	(15,301)	-	(17,310)	0	(32,611)
Costs and discounts from issuance on long-term debt	-	(3,371)	-	(1,127)	0	(4,498)
Interest paid on long-term debt	(92,319)	(123,130)	(16,788)	(25,095)	(109,107)	(148,225)
Net cash provided by (used in) capital and related financing activities	(319,307)	(116,304)	(64,189)	(60,884)	(383,496)	(177,188)
Cash flows from investing activities:						
Proceeds from securities	260,095	405,396	27,142	23,526	287,237	428,922
Expenditures from purchases of securities	(358,695)	(318,171)	(43,301)	(23,714)	(401,996)	(341,885)
Interest received on investments	2,055	3,671	350	279	2,405	3,950
Net cash provided by (used in) investing activities	(96,545)	90,896	(15,809)	91	(112,354)	90,987
Net increase (decrease) in cash and cash equivalents	(190,127)	172,781	(21,004)	(4,467)	(211,131)	168,314
Cash and cash equivalents:						
Beginning of year	348,722	175,941	67,109	71,576	415,831	247,517
End of period	\$158,595	\$348,722	\$46,105	\$67,109	\$204,700	\$415,831

(Continued)

EAST BAY MUNICIPAL UTILITY DISTRICT  
STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED JUNE 30, 2016 AND 2015  
(DOLLARS IN THOUSANDS)

	Water System		Wastewater System		Total	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Reconciliation of net operating income to net cash provided by operating activities:						
Net operating income	\$85,470	\$58,600	\$25,063	\$20,357	\$110,533	\$78,957
Adjustments to reconcile net operating income to net cash provided by operating activities:						
Pension expense	(18,703)	(17,212)	(4,073)	(3,384)	(22,776)	(20,596)
Depreciation on utility plant and vehicle	97,262	94,111	22,529	24,198	119,791	118,309
Depreciation within recreation areas	1,223	1,396	-	-	1,223	1,396
Amortization	17,501	17,531	2,139	1,463	19,640	18,994
Other income	11,341	13,782	3,709	4,387	15,050	18,169
Changes in assets/liabilities:						
Materials and supplies	(767)	(1,140)	-	-	(767)	(1,140)
Prepaid insurance	27	6	-	-	27	6
Customer receivables	(8,800)	4,668	(19)	(162)	(8,819)	4,506
Other assets	(268)	(757)	524	(435)	256	(1,192)
OPEB liability	1,425	1,671	246	295	1,671	1,966
Reserve for claims	4,594	(1,030)	(316)	1,132	4,278	102
Accounts payable and accrued expenses	5,551	(1,359)	1,253	7	6,804	(1,352)
Net cash provided by operating activities	<u>\$195,856</u>	<u>\$170,267</u>	<u>\$51,055</u>	<u>\$47,858</u>	<u>\$246,911</u>	<u>\$218,125</u>
Schedule of Non-Cash Activities						
Change in Fair Value	<u>(\$311)</u>	<u>(\$298)</u>	<u>\$42</u>	<u>(\$90)</u>	<u>(\$269)</u>	<u>(\$388)</u>

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT  
STATEMENTS OF FIDUCIARY NET POSITION  
FIDUCIARY FUND - PENSION AND OTHER EMPLOYEE BENEFIT TRUST  
(COMPONENT UNIT)  
JUNE 30, 2016 AND 2015  
(DOLLARS IN THOUSANDS)

	<u>2016</u>	<u>2015</u>
Assets:		
Cash and investments (Note 2)	\$40,657	\$30,214
Invested securities lending collateral (Note 2)	119,265	108,548
Receivables:		
Contributions	4,551	3,854
Interest and other	3,681	8,302
Prepaid insurance	502	495
Retirement system investments, at fair value (Note 2)		
U.S. government obligations	83,039	73,600
Municipal bonds	2,367	2,250
Domestic corporate bonds	150,784	160,942
International bonds	20,257	18,181
Domestic stocks	854,501	826,471
International stocks	183,577	220,157
Real estate	<u>83,140</u>	<u>73,949</u>
Total Investments	<u>1,377,665</u>	<u>1,375,550</u>
Total assets	<u>1,546,321</u>	<u>1,526,963</u>
Liabilities:		
Accounts payable and accrued expenses	1,755	1,688
Retirement system liabilities	7,172	9,518
Securities lending collateral (Note 2)	<u>119,265</u>	<u>108,548</u>
Total liabilities	<u>128,192</u>	<u>119,754</u>
Net position:		
Held in trust for pension benefits	1,391,771	1,383,053
Held in trust for post-employment healthcare benefits	<u>26,358</u>	<u>24,156</u>
Total net position	<u><u>\$1,418,129</u></u>	<u><u>\$1,407,209</u></u>

See accompanying notes to basic 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, 2016 AND 2015  
(DOLLARS IN THOUSANDS)

	<u>2016</u>	<u>2015</u>
Additions:		
Contributions		
Employer	\$74,672	\$73,141
Plan members	<u>14,925</u>	<u>13,427</u>
Total contributions	<u>89,597</u>	<u>86,568</u>
Investment income:		
Net appreciation (depreciation) in fair value of investments		
Traded securities	(10,122)	38,801
Real estate	2,646	2,292
Interest	5,879	4,330
Dividends	19,346	18,768
Real estate operating income, net	<u>1,098</u>	<u>1,056</u>
Total investment income	18,847	65,247
Less:		
Investment expense	(4,293)	(4,916)
Borrowers' rebates and other agent fees on securities lending transactions	<u>(349)</u>	<u>(105)</u>
Net investment income	<u>14,205</u>	<u>60,226</u>
Total additions, net	<u>103,802</u>	<u>146,794</u>
Deductions:		
Benefits paid	91,152	84,981
Refund of contributions	419	203
Administrative expenses	<u>1,311</u>	<u>1,289</u>
Total deductions	<u>92,882</u>	<u>86,473</u>
Change in net position	10,920	60,321
Net position:		
Beginning of year	<u>1,407,209</u>	<u>1,346,888</u>
End of year	<u><u>\$1,418,129</u></u>	<u><u>\$1,407,209</u></u>

See accompanying notes to basic financial statements



**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</b>
--

***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, 2015.

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.

Additionally, the District reports the following fiduciary fund:

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

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  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

- 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  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

**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 \$2,843) and the Operation & Maintenance Deficit (EBMUD's current balance is \$6,781). 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 1.25 times the expected annual costs.
- Workers' compensation reserve is established by Policy 4.02, as adopted by the Board of Directors in the biennial budget, to maintain a level equal to the estimated future liability for workers' compensation claims.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

*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. The current year balance is \$0 for Water and Wastewater.
- 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. The current year balance is \$0 for Water and Wastewater.
- 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. As of June 30, 2016 and 2015, respectively, the balances were \$5 and \$796 for Water, and \$18 and \$87 for Wastewater.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

- 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. As of June 30, 2016 and 2015 respectively, the balances were \$12,726 and \$12,672 for Water, and \$0 for Wastewater.
- 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. The balance as of June 30, 2016 was \$30,243 for Water (\$19,170 for Future Water Supply projects, \$11,073 for Applicant Work) and \$0 for Wastewater. The balance as of June 30, 2015 was \$26,709 for Water (\$19,087 for Future Water Supply projects, \$7,622 for Applicant Work) and \$0 for Wastewater.
- 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. As of June 30, 2016 and 2015, respectively, the balances were \$2,201 and \$2,225 for Water.
- 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. As of June 30, 2016 and 2015, respectively, the balances were \$535 and \$534 for Water.

***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.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

***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.

***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.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

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, 2016, 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, 2016, there were no violations of legal or contractual provisions, and no borrower or lending agent default losses known to the securities lending agent.

In lending securities, cash collateral is invested in the lending agent's short term investment pool, which as of June 30, 2016, had a weighted average maturity of 30 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 49 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, 2016, the fair value of securities on loan was \$117,243. The total cash and noncash collateral held by the System's custodian to secure these securities on loan was valued at \$119,265 (all cash collateral).

***M. Material and Supplies***

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



**EAST BAY MUNICIPAL UTILITY DISTRICT  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

***N. Compensated Absences***

Compensated absences as of June 30, 2016, 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,	June 30,	June 30,	June 30,	June 30,	June 30,
Beginning Balance	\$26,424	\$23,452	\$4,178	\$4,232	\$30,602	\$27,684
Additions	27,140	28,111	4,669	4,536	31,809	32,647
Payments	(25,966)	(25,139)	(4,556)	(4,590)	(30,522)	(29,729)
Ending Balance	<u>\$27,598</u>	<u>\$26,424</u>	<u>\$4,291</u>	<u>\$4,178</u>	<u>\$31,889</u>	<u>\$30,602</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.

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.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

***Q. Deferred Outflows/Inflows of Resources***

In addition to assets, the statement of financial position or 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 statement of financial position or 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. 72** – In February 2015, the GASB issued Statement No. 72, *Fair Value Measurement and Application*. The intention of this Statement is to enhance the comparability of financial statements among governments by requiring measurement of certain assets and liabilities at fair value using a consistent and more detailed definition of fair value and accepted valuation techniques. It also enhances fair value application guidance and related disclosures. The provisions of this statement are effective for reporting periods beginning after June 15, 2015, therefore, the District implemented this statement for fiscal year ended June 30, 2016. See Note 1S and 2E for additional information.

***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**  
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**NOTE 2 - CASH AND INVESTMENTS**

**A. Classification**

Reconciliations of cash and investments reported on the financial statements as of June 30, 2016, are as follows:

	Water System	Wastewater System	Total
<b><i>District Enterprise Funds:</i></b>			
Cash and investments included in current assets	\$340,431	\$86,983	\$427,414
Cash and investments included in restricted investments	45,710	18	45,728
Total District cash and investments	386,141	87,001	473,142
Less investments	(227,546)	(40,896)	(268,442)
Cash and cash equivalents	\$158,595	\$46,105	\$204,700
	<u>\$158,595</u>	<u>\$46,105</u>	<u>\$204,700</u>
	Pension Plan Benefits	Post-employment Healthcare Benefits	Total
<b><i>System Pension Trust Funds:</i></b>			
Cash and cash equivalents	\$39,927	\$730	\$40,657
Invested securities lending collateral	117,124	2,141	119,265
Retirement system investments	1,352,932	24,733	1,377,665
Total System cash and investments	\$1,509,983	\$27,604	\$1,537,587
	<u>\$1,509,983</u>	<u>\$27,604</u>	<u>\$1,537,587</u>

**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.

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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

Authorized Investment Type	Maximum Maturity	Minimum Credit Quality	Maximum in Portfolio	Maximum Investment In One Issuer
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	A1, P1, or F1	20%	N/A
Money Market Mutual Funds	N/A	AAA	20%	N/A
Time Certificates of Deposits - Banks or Savings and Loans	5 Years	N/A	20%	\$100
Negotiable Certificates of Deposit	5 Years	AA	20%	\$250
Commercial Paper	270 Days	A1, P1, or F1	20%	10%
Medium Term Corporate Notes	5 Years	AA	30%	10%
Repurchase Agreements	270 Days	N/A	20%	N/A
Municipal Bonds	5 Years	AA	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 Short term Rating Category
U.S. Treasury Bonds, Notes and Bills	N/A
U.S. Government Agency and U.S. Government-Sponsored Enterprise Obligation	N/A
State Obligations	Not lower than District's bond rating
Commercial Paper	Top Rating Category
Negotiable Certificates of Deposit	FDIC insured or collateralised
Time Certificates of Deposits - Banks or Savings and Loans	FDIC insured or collateralised
Corporate Notes and Bonds	Not lower than District's bond rating
Variable Rate Obligations	Not lower than District's bond rating
Cash Swap 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  
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<b>NOTE 2 - CASH AND INVESTMENTS (Continued)</b>
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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 *Resolution No. 6807*.

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 shall be determined by the Retirement Board to accommodate changing conditions and laws. The long-range asset allocation goal is as follows:

Core Fixed Income	10%
Non-Core Fixed Income	10%
Domestic Equity	40%
Covered Calls	20%
International Equity	15%
Real Estate	5%
Allocation to Cash	0%

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

The Director of Finance is authorized to transfer assets from any asset class which exceeds 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.

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<b>NOTE 2 - CASH AND INVESTMENTS (Continued)</b>
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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.

Holdings 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 holdings, 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 positions 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%.

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<b>NOTE 2 - CASH AND INVESTMENTS (Continued)</b>
--

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 holdings.

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, 2016:

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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***District Enterprise Funds:***

Investment Type	Level 1	Level 2	Total
<b>Investments by Fair Value Level:</b>			
U.S. Government-Sponsored Enterprise Agencies:			
Non-callable		\$48,095	\$48,095
Callable		124,587	124,587
United States Treasury Securities	\$30,020		30,020
Corporate Securities		18,683	18,683
Municipal Bonds		13,511	13,511
Negotiable Certificates of Deposit			
Non-callable		33,045	33,045
Callable		252	252
California Local Agency Investment Fund		\$58,123	58,123
	<u>\$30,020</u>	<u>\$296,296</u>	<u>326,316</u>
<b>Investments Measured at Net Asset Value Per Share:</b>			
California Asset Management Program			40,149
<b>Investments Measured at Amortized Cost:</b>			
Demand Deposits and Certificate of Deposit			250
Mutual Funds (U.S. Securities)			<u>50,477</u>
Total Investments			417,192
Cash in banks			<u>55,950</u>
Total District Cash and Investments			<u><u>\$473,142</u></u>

Investments classified in Level 1 of the fair value hierarchy, valued at \$30,020 are valued using quoted prices in active markets. Federal agency securities totaling \$172,682, Corporate Securities totaling \$18,683, Municipal Bonds totaling \$13,511, and Certificates of Deposits totaling \$33,297, 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 California Local Agency Investment Fund, classified in Level 2 of the fair value hierarchy, is valued based on the fair value of the underlying assets of the pool.



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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

Investment Type	Level 1	Level 2	Level 3	Total
<b>Investments by Fair Value:</b>				
Asset Backed Securities		\$11,320	\$223	\$11,543
Equity Securities	\$759,712	264,886	88	1,024,686
Collateralized Bonds		411		411
Commercial Mortgage - Backed Securities		6,984		6,984
Commercial Paper		2,280		2,280
Corporate Bonds		111,558		111,558
Government Agencies		26,712		26,712
Government Bonds		33,482		33,482
Government Mortgage - Backed Securities		19,489		19,489
Government Issued				
Commercial Mortgage - Backed Securities		414		414
Index Linked Government Bonds		2,942		2,942
Short Term Investment Funds		11,113		11,113
Municipal Bonds		2,367		2,367
Mutual Funds		563		563
Real Estate			83,140	83,140
Other Fixed Income		39,981		39,981
Total Investments at Fair Value	<u>\$759,712</u>	<u>535,524</u>	<u>\$83,451</u>	<u>1,377,665</u>
California Local Agency Investment Fund		\$1,022		1,022
<b>Investments Measure at Amortized Cost:</b>				
Invested securities lending collateral				119,265
Cash in banks				<u>39,635</u>
Total District Cash and Investments				<u>\$1,537,587</u>

Investments classified in Level 1 of the fair value hierarchy, valued at \$759,712, are valued using quoted prices in active markets. \$535,524 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. The California Local Agency Investment Fund, classified in Level 2 of the fair value hierarchy, is valued based on the fair value of the underlying assets of the pool. Investments totaling \$83,451 classified in Level 3 of the fair value hierarchy are valued using appraisals and estimate 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.

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.

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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***District Enterprise Funds:***

Investment Type	12 Months or less	13 to 24 Months	25 to 60 Months	Total
U.S. Government-Sponsored Enterprise Agencies:				
Non-callable	\$26,018	\$12,073	\$10,004	\$48,095
Callable	3,503	12,048	109,036	124,587
United States Treasury Securities	30,020			30,020
Corporate Securities	15,014	3,160	509	18,683
Municipal Bonds	10,298	2,701	512	13,511
Negotiable Certificates of Deposit				
Non-callable	30,028	3,017		33,045
Callable			252	252
Demand Deposits and Certificate of Deposit	250			250
Mutual Funds (U.S. Securities)	50,477			50,477
California Asset Management Program	40,149			40,149
California Local Agency Investment Fund	58,123			58,123
Total Investments	<u>\$263,880</u>	<u>\$32,999</u>	<u>\$120,313</u>	417,192
Cash in banks				<u>55,950</u>
Total District Cash and Investments				<u><u>\$473,142</u></u>

***System Pension Trust Fund:***

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	\$322	\$6,279	\$1,558	\$3,384		\$11,543
Equity Securities	1,024,686					1,024,686
Collateralized Bonds			411			411
Commercial Mortgage - Backed Securities				6,984		6,984
Commercial Paper	2,280					2,280
Corporate Bonds	7,489	43,267	21,442	11,236	\$28,124	111,558
Government Agencies		12,302	7,350	7,060		26,712
Government Bonds	9,846	14,592	7,207	1,837		33,482
Government Mortgage - Backed Securities		1	130	19,358		19,489
Government Issued						
Commercial Mortgage - Backed Securities		414				414
Index Linked Government Bonds	349		1,024	1,569		2,942
Short Term Investment Funds					11,113	11,113
Municipal Bonds				2,367		2,367
Mutual Funds				563		563
Real Estate					83,140	83,140
Other Fixed Income		7,107	1,074		31,800	39,981
Total System Investments	<u>\$1,044,972</u>	<u>\$83,962</u>	<u>\$40,196</u>	<u>\$54,358</u>	<u>\$154,177</u>	<u>\$1,377,665</u>

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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**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, 2016, these investments matured in an average of 167 days.

The System's investments include the following investments that are highly sensitive to interest rate fluctuations to a greater degree than already indicated above:

Highly Sensitive Investments	Fair Value at Year End
Government Mortgage - Backed Securities	\$19,489
Commercial Mortgage - Backed Securities	6,984
Government Issued Commercial Mortgage - Backed Securities	414

**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. Presented below is the actual rating as of June 30, 2016, for each investment type as provided by Moody's.

***District Enterprise Funds:***

Investment Type	Aaa	Aa1	Aa2	Aa3	MIG1	Total
U.S. Government-Sponsored Enterprise Agencies:						
Non-Callable	\$48,095					\$48,095
Callable	124,587					124,587
United States Treasury Securities	30,020					30,020
Corporate Securities	4,669	\$4,559	\$4,453	\$5,002		18,683
Municipal Bonds	779	265	6,467		\$6,000	13,511
Negotiable Certificates of Deposit						
Non-Callable			30,028	3,017		33,045
Mutual Funds (U.S. Securities)	50,477					50,477
Totals	<u>\$258,627</u>	<u>\$4,824</u>	<u>\$40,948</u>	<u>\$8,019</u>	<u>\$6,000</u>	<u>318,418</u>
<i>Not rated:</i>						
Demand Deposits and Certificate of Deposit						250
Negotiable Certificates of Deposit (callable)						252
California Local Agency Investment Fund						58,123
California Asset Management Program						40,149
Cash in Banks						55,950
Total District Cash and Investment						<u>\$473,142</u>

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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

Investment Type	Aaa	Aa	A	Baa	Ba	B	U.S. Government Guaranteed	Not Rated	Total
Asset Backed Securities	\$9,211	\$61	\$502	\$507	\$558			\$704	\$11,543
Equity Securities								1,024,686	1,024,686
Collateralized Bonds	411								411
Commercial Mortgage - Backed Securities	4,610		34					2,340	6,984
Commercial Paper								2,280	2,280
Corporate Bonds	1,602	17,416	38,167	22,813	989	\$20		30,551	111,558
Government Agencies	22,976						\$3,736		26,712
Government Bonds	33,482								33,482
Government Mortgage - Backed Securities				255			19,042	192	19,489
Government Issued									
Commercial Mortgage - Backed Securities							414		414
Index Linked Government Bonds	2,942								2,942
Short Term Investment Funds								11,113	11,113
Municipal Bonds		1,798						569	2,367
Mutual Funds	226	4	95					238	563
Real Estate								83,140	83,140
Other Fixed Income								39,981	39,981
Total System Investments	<u>\$75,460</u>	<u>\$19,279</u>	<u>\$38,798</u>	<u>\$23,575</u>	<u>\$1,547</u>	<u>\$20</u>	<u>\$23,192</u>	<u>\$1,195,794</u>	<u>\$1,377,665</u>

***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:

***District Enterprise Funds:***

Reporting Unit	Issuer	Investment Type	Reported Amount
District-Wide			
	FNMA	Federal Agency Securities	\$68,069
	FHLMC	Federal Agency Securities	58,073
	FHLB	Federal Agency Securities	34,540
	American Express Fed Savings Bank	Negotiable Certificate of Deposit	30,029
Major Funds:			
Water System			
	FNMA	Federal Agency Securities	56,008
	FHLMC	Federal Agency Securities	41,192
	American Express Fed Savings Bank	Negotiable Certificate of Deposit	30,029
	FHLB	Federal Agency Securities	27,535
Wastewater System			
	FHLMC	Federal Agency Securities	16,881
	FNMA	Federal Agency Securities	12,061
	FHLB	Federal Agency Securities	7,005

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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

Significant System Pension Trust Fund investments are:

Nature of investment	Fair Value at Year End
Northern Trust Collective Daily Russell 1000 Equity Index Fund	\$237,709

***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, 2016:

Foreign Currency	Equity Securities Investment Type
Euro	\$54,781
British Pound Sterling	30,300
Hong Kong Dollar	15,305
Japanese Yen	12,816
Swiss Franc	12,185
South Korean Won	7,219
Canadian Dollar	4,892
Danish Krone	4,026
Norwegian Krone	2,412
Singapore Dollar	2,210
Australian Dollar	2,132
Swedish Krona	1,408
Brazilian Real	1,330
Indonesian Rupiah	1,318
Thai Baht	707
Mexican Peso	635
Turkish Lira	535
Total	<u>\$154,211</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 11.2%.

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<b>NOTE 2 - CASH AND INVESTMENTS (Continued)</b>
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***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.

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, 2016 and 2015, the System's brokers/dealers held \$0 and \$294, respectively, in cash exposed to custodial credit risk.

***K. Joint Powers Authority***

**DRSD/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.

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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

**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.

**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

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**NOTE 3 – CAPITAL ASSETS (Continued)**

**B. Additions and Retirements**

Capital assets activity for all business-type activities for the year ended June 30, 2016, was as follows:

	Balance at June 30, 2015	Additions and Transfers, net	Retirements and Transfers, net	Balance at June 30, 2016
<b>Water System:</b>				
Capital assets, not being depreciated:				
Land	\$55,445	\$275	(\$16)	\$55,704
Rights-of-way	3,000	29		3,029
Construction in progress - Land	446	700	(333)	813
Construction in progress	308,999	228,324	(235,163)	302,160
Total capital assets, not being depreciated	367,890	229,328	(235,512)	361,706
Capital assets, being depreciated:				
Buildings and improvements	222,168	17,922	(4)	240,086
System and improvements	4,610,673	203,556	(21,419)	4,792,810
Machinery and equipment	86,563	13,684	(2,031)	98,216
Total capital assets, being depreciated:	4,919,404	235,162	(23,454)	5,131,112
Less accumulated depreciation for:				
Buildings and improvements	(96,127)	(5,050)	4	(101,173)
System and improvements	(1,442,488)	(89,689)	2,793	(1,529,384)
Machinery and equipment	(64,230)	(3,746)	1,875	(66,101)
Total accumulated depreciation	(1,602,845)	(98,485)	4,672	(1,696,658)
Total capital assets, being depreciated, net	3,316,559	136,677	(18,782)	3,434,454
Water System capital assets, net	\$3,684,449	\$366,005	(\$254,294)	\$3,796,160
<b>Wastewater System:</b>				
Capital assets, not being depreciated:				
Land	\$20,826	\$174		\$21,000
Rights-of-way	191			191
Construction in progress - Land	244	189	(\$174)	259
Construction in progress	64,775	36,664	(38,293)	63,146
Total capital assets, not being depreciated	86,036	37,027	(38,467)	84,596
Capital assets, being depreciated:				
Buildings and improvements	76,304	177		76,481
System and improvements	904,046	36,829	(2,367)	938,508
Machinery and equipment	11,313	1,287		12,600
Total capital assets, being depreciated	991,663	38,293	(2,367)	1,027,589
Less accumulated depreciation for:				
Buildings and improvements	(35,198)	(1,572)		(36,770)
System and improvements	(353,922)	(20,220)		(374,142)
Machinery and equipment	(6,994)	(737)		(7,731)
Total accumulated depreciation	(396,114)	(22,529)		(418,643)
Total capital assets, being depreciated, net	595,549	15,764	(2,367)	608,946
Wastewater System capital assets, net	\$681,585	\$52,791	(\$40,834)	\$693,542
Business-type activities capital assets, net	\$4,366,034	\$418,796	(\$295,128)	\$4,489,702



**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**NOTE 3 – CAPITAL ASSETS (Continued)**

**C. Construction in Progress**

Construction in Progress in fiscal 2015-2016 comprises:

	<u>Expended to Date</u>
<b><i>Water System:</i></b>	
Pipeline Infrastruct Renewals	\$ 42,445
Pumping Plant Rehabilitation	39,044
Treatment Plant Upgrades	25,540
Reservoir Rehab/Maintenance	20,753
Summit Pressure Zone Improve	17,502
Addl Supplemental Supply Projs	16,989
SRV Recycled Water Program	13,312
Dam Seismic Upgrades	9,605
Water Conservation Project	7,102
WTTIP WTP Improvements	6,460
Pipeline Relocations	6,249
Pardee/Cam Rec Areas Impr Plan	5,947
Raw Water Studies and Improves	5,930
Large Diameter Pipelines	5,749
West of Hills Transmission	4,569
Srvc Latl Repl Polybutylene	4,355
Open Cut Reservoir Rehab	4,148
East Bayshore	3,957
Distribution System Upgrades	3,679
Reservoir Tower Modifications	3,581
Other Construction Projects	56,057
	<u>\$ 302,973</u>
<b><i>Wastewater System:</i></b>	
Wood St Sewer Intercept Rehab	\$ 20,382
Treatment Plant Infrastructure	7,904
Resource Recovery Project	6,582
PGS Expansion	5,821
Infiltration/Inflow Contrl Prj	4,695
Digester Upgrade	3,553
DCS Upgrade	3,162
Routine Cap Equip Replacement	1,739
MWWTP Master Plan	1,601
Odor Control Improvements	1,184
PS Q FM Dual-Mode Operation	1,109
Plant Pipe Replacement	858
3rd St Sewer Interceptor Rehab	712
MWWTP Pwr Dist Sys Upgrade	652
Outfall Investigation Project	547
Other Construction Projects	2,904
	<u>\$ 63,405</u>
Total District Construction in Progress	<u><u>\$ 366,378</u></u>

At June 30, 2016, the District's remaining current major project commitments are estimated to be \$53,601 for the Water System and \$2,036 for the Wastewater System.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 4 – ACCOUNTS PAYABLE & ACCRUED EXPENSES**

Accounts payable and accrued expenses at June 30, 2016 and 2015 consist of:

	Water System		Wastewater System		Total	
	June 30	June 30	June 30	June 30	June 30	June 30,
	2016	2015	2016	2015	2016	2015
Accounts payable	\$26,241	\$22,743	\$4,792	\$3,845	\$31,033	\$26,588
Accrued salaries	5,185	3,982	825	683	6,010	4,665
Accrued compensated absences	27,598	26,424	4,291	4,178	31,889	30,602
Other	18,351	16,069	414	413	18,765	16,482
Total	<u>\$77,375</u>	<u>\$69,218</u>	<u>\$10,322</u>	<u>\$9,119</u>	<u>\$87,697</u>	<u>\$78,337</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. In December 2015, the District had determined an aggregate of \$522 million to be authorized for these programs. 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, 2016, \$0 million in Water Series and \$15.0 million in Wastewater Series extendable commercial paper notes were outstanding under this program. The Water Series included terms of 68 to 120 days and interest rates ranging from 0.07% to 0.16% as of June 30, 2015. The Wastewater Series included the term of 91 days and an interest rate of 0.52% as of June 30, 2016, and the term of 91 days and an interest rate of 0.07% as of June 30, 2015.

The District established its current traditional commercial paper program in December 2015. As of June 30, 2016, \$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 terms of 35 to 98 days and interest rates ranging from 0.41% to 0.49% as of June 30, 2016.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**NOTE 5 – COMMERCIAL PAPER NOTES (Continued)**

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, 2016. 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, 2016. 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.

**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.

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**NOTE 6 - LONG TERM DEBT (Continued)**

	Original Issue Amount	Balance June 30, 2015	Additions	Retirements	Balance June 30, 2016	Amount due within one year
<b><i>Water System Revenue Bonds:</i></b>						
<b>Subordinated Series 2007 B</b>						
3.75 - 5.00%, due 6/1/19	\$54,790	\$24,940		\$5,785	\$19,155	\$6,075
<b>Subordinated Series 2008 A</b>						
.39% variable rate, due 6/1/38	322,525	105,250			105,250	
<b>Subordinated Series 2010 A</b>						
3.00 - 5.00%, due 6/1/36	192,830	185,700		2,300	183,400	2,455
<b>Subordinated Series 2010 B</b>						
5.87%, due 6/1/40	400,000	400,000			400,000	
<b>Series 2012 A</b>						
5.00% , due 6/1/37	191,750	191,750			191,750	
<b>Series 2012 B</b>						
1.00 -5.00%, due 6/1/26	358,620	312,250		33,440	278,810	29,360
<b>Series 2013 A</b>						
5.00%, due 6/1/21	48,670	40,015		5,815	34,200	6,135
<b>Series 2014 A</b>						
3.00-5.00%, due 6/1/35	128,315	128,315			128,315	
<b>Series 2014 B</b>						
2.00-5.00%, due 6/1/30	242,730	242,100		880	241,220	7,770
<b>Series 2014 C</b>						
5.00%, due 6/1/44	75,000	75,000			75,000	
<b>Series 2015 A</b>						
4.00-5.00%, due 6/1/37	429,360	429,360			429,360	
<b>Series 2015 B</b>						
4.00-5.00%, due 6/1/45	74,335	74,335			74,335	
<b>Series 2015C</b>						
4.00-5.00%, due 6/1/45	110,715	110,715			110,715	
Total water long-term bonds		2,319,730		48,220	2,271,510	51,795

(Continued)

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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**NOTE 6 - LONG TERM DEBT (Continued)**

	Original Issue Amount	Balance June 30, 2015	Additions	Retirements	Balance June 30, 2016	Amount due within one year
<b>Wastewater System General</b>						
<b>Obligation Bonds:</b>						
<b>Series G</b>						
5.00%, due 4/1/18	\$14,160	\$10,910		\$3,565	\$7,345	\$3,830
<b>Wastewater System Revenue Bonds:</b>						
<b>Subordinated Series 2007 B</b>						
3.75 - 5.00%, due 6/1/26	46,670	29,815		2,895	26,920	3,005
<b>Subordinated Series 2010 A</b>						
2.00 - 5.00%, due 6/1/29	58,095	46,560		2,265	44,295	2,390
<b>Subordinated Series 2010 B</b>						
5.03 - 5.18%, due 6/1/40	150,000	150,000			150,000	
<b>Series 2012 A</b>						
5.00% , due 6/1/37	20,000	20,000			20,000	
<b>Series 2014 A</b>						
2.00 - 5.00%, due 6/1/31	82,150	80,425		4,115	76,310	4,270
<b>Series 2015 A-1</b>						
5.00%, due 6/1/37	54,805	54,805			54,805	
<b>Series 2015 A-2</b>						
5.00%, due 6/1/38	13,565	13,565			13,565	
<b>Series 2015 B</b>						
2.10 - 3.35% , due 6/1/30	2,795	2,795		160	2,635	160
Total wastewater long-term bonds		408,875		13,000	395,875	13,655
<b>Total long-term bonds</b>		2,728,605		61,220	2,667,385	65,450
<b>Water Loans:</b>						
<b>State Water Resources Control Board</b>						
<b>2004 Upper San Leandro Reservoir</b>						
<b>Project</b>						
2.51%, due 1/1/24	\$2,188	\$1,064		\$114	\$950	\$117
<b>2008 East Bayshore, Recycled Water</b>						
<b>Project</b>						
2.40%, due 4/1/28	20,100	13,932		926	13,006	948
Total water loans		14,996		1,040	13,956	1,065
<b>Total long-term loans</b>		14,996		1,040	13,956	1,065
<b>Commercial Paper (see Note 5)</b>						
Water System Commercial Paper		359,800	\$2,325,900	2,325,900	359,800	
Wastewater System Commercial Paper		15,000	105,000	105,000	15,000	
Total commercial paper		374,800	2,430,900	2,430,900	374,800	
Amount due within one year		(62,260)	(4,255)		(66,515)	
Add: Unamortized premium, net		200,318		16,307	184,011	
<b>Total long-term liabilities, net</b>		\$3,256,459	\$2,426,645	\$2,509,467	\$3,173,637	\$66,515

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**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.

***C. Debt Service Requirements***

Annual debt service requirements, 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
2017	\$52,860	\$112,143	\$13,655	\$19,009	\$66,515	\$131,152
2018	59,116	109,629	13,790	18,015	72,906	127,644
2019	61,562	106,994	10,675	17,877	72,237	124,871
2020	64,309	104,051	11,185	17,075	75,494	121,126
2021	67,141	100,963	11,668	17,194	78,809	118,157
2022 - 2026	381,377	453,920	66,975	76,260	448,352	530,180
2027 - 2031	434,203	355,456	75,670	60,319	509,873	415,775
2032 - 2036	561,305	238,247	92,690	39,670	653,995	277,917
2037 - 2041	497,364	85,524	99,570	12,953	596,934	98,477
2042 - 2045	106,229	10,410			106,229	10,410
Totals	\$2,285,466	\$1,677,337	\$395,878	\$278,372	\$2,681,344	\$1,955,709

Interest payments on debt subject to swap agreements were calculated using the variable rates at June 30, 2016.

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**NOTE 6 - LONG TERM DEBT (Continued)**

***D. 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.

Issue	Standby Purchase Agreement Terms		
	Expiration Date	Interest Rate	Rate Swap Swap Rate
Water System Revenue Subordinated Bonds:			
Series 2008A-1	12/9/2016	Reset Weekly	See below
Series 2008A-2	7/2/2018	Reset Weekly	See below
Series 2008A-3	7/2/2018	Reset Weekly	See below
Series 2008A-4	12/9/2016	Reset Weekly	See below

***E. 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, 2016, 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.

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**NOTE 6 – LONG-TERM DEBT (Continued)**

Related Bond Issue	Notional Amount	Effective Date	Counterparty	Counterparty Credit Ratings (Moody's/ S&P)	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.	A1/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	Baa1/BBB+	3.115%	62.3% of 30-day LIBOR	6/1/2038
2008A Water System Refunding Bonds	14,575	9/25/2008	The 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.

*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, 2016, are included below:

Related Bond Issuance	Fair Value	
	2016	2015
2008A Water System Refunding Bonds	(\$36,720)	(23,485)

*Credit risk.* As of June 30, 2016, the District was not exposed to credit risk on its outstanding swaps because the swaps had a negative fair value of \$36.7 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, 2016, the District was not required to provide collateral to any SWAP counterparty.



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**NOTE 6 – LONG-TERM DEBT (Continued)**

*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, 2016, the District has a basis difference on its swaps of a negative 10 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.

*Swap payments and associated debt.* Using rates as of June 30, 2016, 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	
2017	-	\$415	\$2,970	\$3,385
2018	-	415	2,970	3,385
2019	-	415	2,970	3,385
2020	-	415	2,970	3,385
2021	-	415	2,970	3,385
2022 - 2026	-	2,075	14,850	16,925
2027 - 2031	\$11,675	2,029	14,521	16,550
2032 - 2036	64,575	1,097	7,858	8,955
2037 - 2038	29,000	58	416	474
Totals	\$105,250	\$7,334	\$52,495	\$59,829

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**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.

**NOTE 8 – EMPLOYEES' RETIREMENT PLAN**

**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 accordance with the ordinance governing the Plan, eligible employees become members on the first day they are physically on the job. District-defined benefits vest in part with members after completion of five years of continuous, full-time employment.

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.

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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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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.

***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, 2016, there were 1,482 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 and who had 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 \$7,685 in the year ended June 30, 2016. Effective June 18, 2002, a portion of the post-employment healthcare benefit costs is recovered through employee contributions.

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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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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, 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 for a single retiree or survivor and \$550 per month for retiree and a spouse or a 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.

District contributions for the year ended June 30, 2016 are as follows:

1980 Plan:

Pension plan:

Employer service cost	14.86%
Toward unfunded pension liability	22.85%

Other post-employment benefits:

Employer normal cost	1.22%
Unfunded actuarial accrued liability	4.29%

2013 Plan:

Pension plan:

Employer service cost	8.07%
Toward unfunded pension liability	22.85%

Other post-employment benefits:

Employer normal cost	0.77%
Unfunded actuarial accrued liability	4.29%

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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Effective June 30, 2016, contributions for fiscal year 2016/2017 are as follows:

1980 Plan:

Pension plan:

Employer service cost	14.50%
Toward unfunded pension liability	21.41%

Other post-employment benefits:

Employer normal cost	1.16%
Unfunded actuarial accrued liability	4.21%

2013 Plan:

Pension plan:

Employer service cost	8.01%
Toward unfunded pension liability	21.41%

Other post-employment benefits:

Employer normal cost	0.74%
Unfunded actuarial accrued liability	4.21%

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

Valuation date	June 30, 2015
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 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:	
Investment rate of return	7.75%
Average projected salary increases*	Ranges from 4.25% to 9.75% based on years of service*
Inflation rate	3.25%
Cost-of-living adjustments	3.15%
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table projected with scale AA to 2016, set back one year for males and set back two years for females
Annual healthcare costs trend rates	6.625% reduced by increments to a rate of 5% after 10 years

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

All assumptions are the same for the post-employment health care benefits except for the discount rate, assumed at a rate of 7.5% for the funded and unfunded portions.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

***E. Contributions Required and Contributions Made***

Contributions for the years ended June 30, 2016 and 2015 based on the actuarial valuation, were as follows:

	2016		2015	
	Pension	Healthcare Benefit Plan	Totals	
Regular contributions:				
District contributions	\$65,218	\$9,454	\$74,672	\$73,141
Member contributions	14,710	162	14,872	\$13,407
	<u>79,928</u>	<u>9,616</u>	<u>89,544</u>	<u>86,548</u>
Other contributions:				
Member buybacks	31	22	53	20
	<u>\$79,959</u>	<u>\$9,638</u>	<u>\$89,597</u>	<u>\$86,568</u>

Regular District and member contributions in fiscal 2016 represent an aggregate of 42.44% and 8.48% 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, 2015. The actual payroll for the District employees covered by the Plan for the year ended June 30, 2016, was \$175,928 which was 90.48% of the total District payroll of \$194,432.

The total District contribution of \$75,089 as of June 30, 2016, consisted of \$74,672 regular contribution (\$26,867 for normal cost and service cost also includes \$47,805 for amortization of the unfunded actuarial accrued liability and payment to reduce the net pension liability) and \$417 interest on contribution.

Regular District and member contributions in fiscal 2015 represent an aggregate of 43.67% and 7.98% of covered payroll, respectively. The District’s contributions include amounts for post-employment healthcare benefits at a rate of 5.43% of covered payroll, determined by the actuarial dated June 30, 2014. The actual payroll for the District employees covered by the Plan for the year ended June 30, 2015, was \$167,380, which was 91.13% of the total District payroll of \$183,678.

The total District contribution of \$73,453 as of June 30, 2015, consisted of \$73,141 regular contribution (\$26,528 for normal cost and \$46,613 for amortization of the unfunded actuarial accrued liability) and \$312 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**  
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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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***F. Schedule of Employer Contributions***

The District’s annual OPEB costs and schedules of contributions for the past three years are as follows:

	<u>Actual Contribution</u>	<u>Annual OPEB Cost</u>	<u>Percentage Contributed</u>	<u>Net OPEB Obligation</u>
Fiscal year ended June 30:				
2014	\$8,831	\$11,184	79%	\$21,685
2015	9,275	11,241	83%	23,651
2016	9,871	11,542	86%	25,322

The annual required contributions for fiscal years ended June 30, 2016, 2015 and 2014, include amounts for the pay-as-you-go amounts for post-employment healthcare benefits.



**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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***Health Insurance Benefit Plan:***

During the fiscal year ended June 30, 2016, the District made contributions to the Health Insurance Benefit Plan toward the Annual Required Contribution (ARC) amounting to \$9,454 which represented 4.86% of the \$194,432 total District payroll. During the fiscal year ended June 30, 2015, the District made contributions toward the ARC amounting to \$8,963 to the plan which represented 4.88% of the \$183,678 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, 2014		\$21,685
Annual required contribution (ARC)	\$11,254	
Interest on net OPEB obligation	1,533	
Adjustments to the ARC	(1,546)	
Annual OPEB cost - fiscal 2014/2015	<u>11,241</u>	
Less contributions made during fiscal year:		
Contributions to Northern Trust	(8,963)	
Interest on Contributions to Northern Trust	(312)	
Contributions	<u>(9,275)</u>	
Contributions less than ARC		<u>1,966</u>
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 2015/2016	<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>	
Increase in net OPEB obligations		<u>1,671</u>
<b>Net OPEB obligation at June 30, 2016</b>		<u><u>\$25,322</u></u>

A schedule of funding progress for the retirement 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.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

**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, 2016 and 2015 is as shown below:

	2016	2015
Total pension liability	\$1,845,912	\$1,756,706
Plan fiduciary net position	<u>(1,383,053)</u>	<u>(1,325,387)</u>
Employer net pension liability	<u>\$462,859</u>	<u>\$431,319</u>
Plan fiduciary net position as a percentage of total pension liability	74.93%	75.45%
Covered payroll	\$179,991	\$173,111
Liability as a percentage of covered employee payroll	257.16%	249.16%

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, 2015 and 2014 and are not adjusted or rolled forward to the June 30, 2016 and 2015 reporting dates, respectively.

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

For the year ended June 30, 2016, the District recognized pension expense as follows:

	<u>Water</u>	<u>Wastewater</u>	<u>Total</u>
Contributions made after measurement date	(\$55,579)	(\$9,639)	(\$65,218)
Current year changes in the net pension liability:			
Service cost	31,262	5,529	36,791
Interest on total pension liability	111,820	19,775	131,595
Member contributions	(11,267)	(1,993)	(13,260)
Projected earning on investments	(84,415)	(14,928)	(99,343)
Difference in expected and actual earnings	6,807	1,204	8,011
Other	(17,331)	(4,021)	(21,352)
Total current year activity	<u>36,876</u>	<u>5,566</u>	<u>42,442</u>
Total pension expense	<u>(18,703)</u>	<u>(\$4,073)</u>	<u>(\$22,776)</u>

At June 30, 2016, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>		<u>Deferred Inflows of Resources</u>	
	<u>Water</u>	<u>Wastewater</u>	<u>Water</u>	<u>Wastewater</u>
Pension contributions subsequent to measurement date	\$55,579	\$9,639		
Differences between expected and actual experience	222	39	\$950	\$168
Changes of assumptions	9,354	1,654		
Change in proportion and differences between employer contributions and proportionate share of contributions	2,826			2,826
Net difference between projected and actual earnings on pension plan investments	27,229	4,816	66,643	11,786
Total	<u>\$95,210</u>	<u>\$16,148</u>	<u>\$67,593</u>	<u>\$14,780</u>

A total of \$65,218 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, 2017. 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	<u>Deferred Outflows of Resources</u>		<u>Deferred Inflows of Resources</u>	
June 30	<u>Water</u>	<u>Wastewater</u>	<u>Water</u>	<u>Wastewater</u>
2017	\$7,771	\$1,276	\$19,373	\$4,284
2018	7,771	1,276	19,373	4,284
2019	7,771	1,276	19,483	4,287
2020	7,771	1,276	829	479

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**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%	5.91%
Domestic Small Cap Equity	4%	6.47%
Developed International Equity	12%	6.88%
Emerging Markets Equity	3%	8.24%
Domestic Bonds	10%	0.85%
Non-Core Fixed Income	10%	3.10%
Real Estate	5%	4.79%
Covered Calls	20%	4.90%
Total	100%	

The discount rates used to measure the total pension liability were 7.50% and 7.50% as of June 30, 2016 and June 30, 2015, 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, 2016 and June 30, 2015.

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, 2016, calculated using the discount rate of 7.50%, 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 (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
Net Pension Liability	\$699,920	\$462,859	\$265,218

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

***H. 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 payroll	8.65% of Reportable Compensation
Member Contribution Rate as a percentage of payroll	8.75% of Reportable Compensation

The employer contribution rate listed above was in effect until June 30, 2016. 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 44.82% 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, 2016, the District paid \$1,547 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	10,000	50
Main Wastewater Treatment Plant	10,000	50

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**NOTE 9 – RISK MANAGEMENT (Continued)**

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, 2016, the amount of these liabilities was \$47,777. 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:

	<u>2016</u>	<u>2015</u>
Liability at beginning of year	\$43,499	\$43,397
Current year claims and changes in estimates	12,260	6,863
Payments of claims	<u>(7,982)</u>	<u>(6,761)</u>
Liability at end of year	<u><u>\$47,777</u></u>	<u><u>\$43,499</u></u>
Estimated liability:		
Due within one year	\$9,641	\$8,714
Due in more than one year	<u>38,136</u>	<u>34,785</u>
	<u><u>\$47,777</u></u>	<u><u>\$43,499</u></u>

**NOTE 10 – KNOWN ENVIRONMENTAL MATTERS**

Following is a summary of the District's known environmental matters as of June 30, 2016, that meets 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 continued discharges 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.
- The District submitted a Best Practicable Treatment and Control Evaluation Report to the Central Valley Regional Water Quality Control Board (CVRWQCB) on June 22, 2010 to address potential groundwater impacts from the wastewater treatment facility at Camanche North Shore Recreation Area. Based on the results of this evaluation, the no-action alternative was selected as the preferred alternative because the constituents of concern only slightly exceed recommended target groundwater concentrations and there are no significant impacts upon beneficial uses. Uncertainty exists as to whether or not the CVRWQCB will concur with this recommendation as they have not provided any response to the District's evaluation. If the CVRWQCB does not concur, it is possible that the District will be required to construct wastewater treatment pond upgrades. At this preliminary planning stage, it is estimated that the cost would be approximately \$6.6 million to upgrade the existing facilities, or alternatively, approximately \$7.8 million to construct a joint wastewater project with Amador County.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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<b>NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)</b>
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- The CVRWQCB has requested that the District and U.S. Bureau of Land Management (BLM) address three abandoned ponds near Camanche Reservoir that contain mine wastes. The District and BLM have both been named as Potential Responsible Parties and are jointly completing this site investigation/remediation project. An Engineering Evaluation/Cost Analysis was completed in 2013 to present remediation alternatives and a Value Engineering (VE) study was completed in 2014 to analyze life-cycle costs of the recommended alternative consistent with required performance, reliability, quality, safety, and achievement of mission priorities. Subsequent to the VE study, BLM risk assessors audited the site to make recommendations for further financial savings. The modified proposal from BLM that incorporates the findings of their risk assessor reduced initial project costs significantly and still addressed the key environmental concerns, which was well received by the CVRWQCB. The final site remedy and cost allocations between the District and BLM have yet to be determined.
- The CVRWQCB has requested that the District address elevated concentrations of petroleum hydrocarbons in soil and groundwater associated with former underground storage tanks (USTs) at the District's Bixler facility. The District has completed significant site investigation work, including groundwater and soil gas monitoring, and requested closure of the site from the CVRWQCB. In early 2015, the CVRWQCB requested one more round of ground water monitoring at the site before they can consider closure. The additional monitoring was completed in summer 2015. On March 30, 2016, the CVRWQCB publicly noticed the site for closure. The public comment period closed on May 30, 2016, with no comments received. On July 12, 2016, the CVRWQCB provided notice that there were no objections to closure and the District should proceed with destruction of onsite monitoring wells by December 30, 2016, after which final closure may be finalized.
- The Alameda County Environmental Health Agency (County) requested that the District conduct additional site investigations at the Adeline Maintenance Center (AMC) Shops to further define the extent of petroleum hydrocarbons in soil and groundwater associated with former USTs. The District completed additional site investigations in accordance with an approved work plan in 2009. The results indicate that elevated concentrations of petroleum hydrocarbons still remain in onsite soil and groundwater in localized areas near the former USTs. In June 2016 the County 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.
- 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 has transitioned into a long term restoration phase which is projected to include approximately three years of monitoring at the site to confirm status of water quality and resident biota. Enforcement negotiation is in progress with regulatory agencies for this incident. Penalty amount is anticipated to be approximately \$425,000.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)**

- In October 2015, November 2015, and May 2016 the District experienced unplanned emergency potable water discharges associated with water main breaks. In each of these cases, the potable water releases reached local waterways and resulted in fish kills despite rapid staff response and deployment of industry best management practices to the maximum extent feasible to minimize impacts. The District is in the process of enforcement negotiation with the regulatory agencies for these incidents. Penalty amount is unknown at this time.
- 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 is less than \$350,000.

**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, 2016  
(Dollars in thousands)**

**(1) Pension Plan**

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

	2016	2015	2014
<b>Total pension liability</b>			
Service cost	\$36,791	\$34,987	\$34,857
Interest	131,595	127,558	120,810
Change of benefit terms			
Differences between expected and actual experience	(1,390)	438	(402)
Changes of assumptions		18,421	
Benefit payments, including refunds of employee contributions	(77,790)	(71,232)	(65,427)
<b>Net change in total pension liability</b>	89,206	110,172	89,838
<b>Total pension liability - beginning</b>	1,756,706	1,646,534	1,556,696
<b>Total pension liability - ending (a)</b>	<u>\$1,845,912</u>	<u>\$1,756,706</u>	<u>\$1,646,534</u>
<b>Plan fiduciary net position</b>			
Contributions - employer	\$64,177	\$61,660	\$53,795
Contributions - employee	13,260	11,963	10,427
Net investment income	59,288	216,601	136,630
Benefit payments, including refunds of employee contributions	(77,790)	(71,232)	(65,427)
Administrative expense	(1,269)	(1,233)	(1,200)
<b>Net change in plan fiduciary net position</b>	57,666	217,759	134,225
<b>Plan fiduciary net position - beginning</b>	1,325,387	1,107,628	973,403
<b>Plan fiduciary net position - ending (b)</b>	<u>\$1,383,053</u>	<u>\$1,325,387</u>	<u>\$1,107,628</u>
<b>Plan's net pension liability - ending (a) - (b)</b>	<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, 2016  
(Dollars in thousands)**

**(2) Pension Plan**

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

	2016	2015	2014
Total pension liability	\$1,845,912	\$1,756,706	\$1,646,534
Plan fiduciary net position	<u>(1,383,053)</u>	<u>(1,325,387)</u>	<u>(1,107,628)</u>
Net pension liability	<u>\$462,859</u>	<u>\$431,319</u>	<u>\$538,906</u>
Plan fiduciary net position as a percentage of total pension liability	74.93%	75.45%	67.27%
Covered employee payroll	\$179,991	\$173,111	\$166,762
Plan net pension liability as percentage of covered employee payroll	257.16%	249.16%	323.16%

*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
2006	\$30,600	\$30,600	0	\$142,991	21.40%
2007	33,698	33,698	0	145,125	23.22%
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	166,762	32.26%
2014	61,660	61,660	0	173,111	35.62%
2015	64,177	64,177	0	179,991	35.66%

\* "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.

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION  
FOR THE YEAR ENDED JUNE 30, 2016  
(Dollars in thousands)**

**(4) Pension Plan**

Schedule of Investment Returns:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money weighted rate of return, net of investment expense	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 funding progress for the post-employment healthcare plan (in thousands):

Actuarial valuation date	Actuarial value of assets (a)	Actuarial liability (AAL) – entry age (b)	Unfunded AAL (UAAL) (b-a)	Funded ratio (a/b)	Covered payroll (c)	UAAL as a percentage of covered payroll ((b-a)/c)
6/30/2006	\$3,608	\$71,409	\$67,801	5.1%	\$142,373	47.6%
6/30/2007	4,208	105,409	101,201	4.0%	153,394	66.0%
6/30/2008	7,010	137,055	130,045	5.1%	158,499	82.0%
6/30/2009	7,354	130,245	122,891	5.6%	161,893	75.9%
6/30/2010	10,061	135,379	125,318	7.4%	164,085	76.4%
6/30/2011	12,048	135,360	123,312	8.9%	159,505	77.3%
6/30/2012	14,240	138,240	123,999	10.3%	158,847	78.1%
6/30/2013	16,522	138,120	121,598	12.0%	159,246	76.4%
6/30/2014	19,634	140,416	120,782	14.0%	167,196	72.2%
6/30/2015	23,179	143,946	120,767	16.1%	174,899	69.0%

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**  
**FOR THE YEAR ENDED JUNE 30, 2016**  
**(Dollars in thousands)**

**(6) Notes to Required Supplementary Information**

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

Valuation date	June 30, 2015
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 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:	
Investment rate of return	7.75%
Average projected salary increases*	Ranges from 4.25% to 9.75% based on years of service*
Inflation rate	3.25%
Cost-of-living adjustments	3.15%
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table projected with scale AA to 2016, set back one year for males and set back two years for females
Annual healthcare costs trend rates	6.625% reduced by increments to a rate of 5% after 10 years

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

All assumptions are the same for the post-employment health care benefits except for the discount rate, assumed at a rate of 7.50%, for the funded and unfunded portions.

Unaudited.

## **SUPPLEMENTAL INFORMATION**

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

June 30, 2016

(With summarized comparative financial information as of June 30, 2015)

(DOLLARS IN THOUSANDS)

	2016			2015
	Pension plan	Post-employment healthcare	Total	Total
	benefits	benefits		
Assets:				
Cash and cash equivalents, at fair value	\$39,927	\$730	\$40,657	\$30,214
Invested securities lending collateral	117,124	2,141	119,265	108,548
Prepaid expenses		502	502	495
Receivables:				
Brokers, securities sold	1,418	26	1,444	5,839
Employer	3,282	488	3,770	3,220
Plan members	781		781	634
Interest and dividends	2,197	40	2,237	2,463
Total receivables	7,678	554	8,232	12,156
Investments, at fair value:				
U.S. government obligations	81,548	1,491	83,039	73,600
Municipal bonds	2,325	42	2,367	2,250
Domestic corporate bonds	148,077	2,707	150,784	160,942
International bonds	19,893	364	20,257	18,181
Domestic stocks	839,161	15,340	854,501	826,471
International stocks	180,281	3,296	183,577	220,157
Real estate	81,647	1,493	83,140	73,949
Total investments	1,352,932	24,733	1,377,665	1,375,550
Total assets	1,517,661	28,660	1,546,321	1,526,963
Liabilities:				
Accounts payable and accrued expenses	1,723	32	1,755	1,688
Payables to brokers, securities purchased	7,043	129	7,172	9,518
Securities lending collateral	117,124	2,141	119,265	108,548
Total liabilities	125,890	2,302	128,192	119,754
Net position held in trust for pension benefits and post-employment healthcare benefits.	\$1,391,771	\$26,358	\$1,418,129	\$1,407,209

See accompanying notes to financial statements

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

For the Year Ended June 30, 2016

(With summarized comparative financial information for the year ended June 30, 2015)

(DOLLARS IN THOUSANDS)

	2016			2015
	Pension plan	Post-employment healthcare	Total	Total
	benefits	benefits		
Additions:				
Contributions:				
Employer	\$65,218	\$9,454	\$74,672	\$73,141
Plan members	14,741	184	14,925	13,427
Total contributions	<u>79,959</u>	<u>9,638</u>	<u>89,597</u>	<u>86,568</u>
Investment income:				
Net (depreciation)				
in fair value of investments:				
Traded securities	(9,933)	(189)	(10,122)	38,801
Real estate	2,597	49	2,646	2,292
Interest	5,769	110	5,879	4,330
Dividends	18,985	361	19,346	18,768
Real estate operating (loss), net	<u>1,078</u>	<u>20</u>	<u>1,098</u>	<u>1,056</u>
	<u>18,496</u>	<u>351</u>	<u>18,847</u>	<u>65,247</u>
Less:				
Investment expense	(4,219)	(74)	(4,293)	(4,916)
Borrowers' rebates and other agent fees on securities lending transactions	<u>(343)</u>	<u>(6)</u>	<u>(349)</u>	<u>(105)</u>
Net investment (loss)	<u>13,934</u>	<u>271</u>	<u>14,205</u>	<u>60,226</u>
Total additions, net	<u>93,893</u>	<u>9,909</u>	<u>103,802</u>	<u>146,794</u>
Deductions:				
Benefits paid	83,467	7,685	91,152	84,981
Refund of contributions	419		419	203
Administrative expenses	<u>1,289</u>	<u>22</u>	<u>1,311</u>	<u>1,289</u>
Total deductions	<u>85,175</u>	<u>7,707</u>	<u>92,882</u>	<u>86,473</u>
Change in net position	8,718	2,202	10,920	60,321
Net position:				
Beginning of year	<u>1,383,053</u>	<u>24,156</u>	<u>1,407,209</u>	<u>1,346,888</u>
End of year	<u>\$1,391,771</u>	<u>\$26,358</u>	<u>\$1,418,129</u>	<u>\$1,407,209</u>

See accompanying notes to financial statements

**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, 2016 and the related notes to the financial statements, and have issued our report thereon dated August 31, 2016. 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 or other matters that are required to be reported under *Government Auditing Standards*.

We have also issued a separate Memorandum on Internal Control dated August 31, 2016 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.

*Maze + Associates*

Pleasant Hill, California  
August 31, 2016



## Financial Review of Fiscal Year 2016

### 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, 2016**

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

**For the Year Ended June 30, 2016**

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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, 2016, 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.

Included in the Schedule of Other Matters are recommendations not meeting the above definitions that we believe are opportunities for strengthening internal controls and operating efficiency.

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.

*Maze + Associates*

Pleasant Hill, California  
August 31, 2016

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## **MEMORANDUM ON INTERNAL CONTROL SCHEDULE OF OTHER MATTERS**

### **2016-01 Upcoming Governmental Accounting Standards Board Pronouncements**

**The following pronouncements are effective in fiscal year 2016/17:**

#### **GASB 74 - Financial Reporting for Post-employment Benefit Plans Other Than Pension Plans**

The objective of this Statement is to improve the usefulness of information about postemployment benefits other than pensions (other postemployment benefits or OPEB) included in the general purpose external financial reports of state and local governmental OPEB plans for making decisions and assessing accountability. This Statement results from a comprehensive review of the effectiveness of existing standards of accounting and financial reporting for all postemployment benefits (pensions and OPEB) with regard to providing decision-useful information, supporting assessments of accountability and interperiod equity, and creating additional transparency.

This Statement replaces Statements No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans. It also includes requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, as amended, Statement 43, and Statement No. 50, Pension Disclosures.

Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, establishes new accounting and financial reporting requirements for governments whose employees are provided with OPEB, as well as for certain nonemployer governments that have a legal obligation to provide financial support for OPEB provided to the employees of other entities.

The scope of this Statement includes OPEB plans—defined benefit and defined contribution—administered through trusts that meet the following criteria:

- Contributions from employers and nonemployer contributing entities to the OPEB plan and earnings on those contributions are irrevocable.
- OPEB plan assets are dedicated to providing OPEB to plan members in accordance with the benefit terms.
- OPEB plan assets are legally protected from the creditors of employers, nonemployer contributing entities, and the OPEB plan administrator. If the plan is a defined benefit OPEB plan, plan assets also are legally protected from creditors of the plan members.

This Statement also includes requirements to address financial reporting for assets accumulated for purposes of providing defined benefit OPEB through OPEB plans that are not administered through trusts that meet the specified criteria

## **2016-01 Upcoming Governmental Accounting Standards Board Pronouncements (continued)**

**The following pronouncements are effective in fiscal year 2017/18:**

### **GASB 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.

In addition, this Statement details the recognition and disclosure requirements for employers with payables to defined benefit OPEB plans that are administered through trusts that meet the specified criteria and for employers whose employees are provided with defined contribution OPEB. This Statement also addresses certain circumstances in which a nonemployer entity provides financial support for OPEB of employees of another entity.

In this Statement, distinctions are made regarding the particular requirements depending upon whether the OPEB plans through which the benefits are provided are administered through trusts that meet the following criteria:

- Contributions from employers and nonemployer contributing entities to the OPEB plan and earnings on those contributions are irrevocable.
- OPEB plan assets are dedicated to providing OPEB to plan members in accordance with the benefit terms.
- OPEB plan assets are legally protected from the creditors of employers, nonemployer contributing entities, the OPEB plan administrator, and the plan members.

## 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, 2016. 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:

**GASB Statement No. 72 – Fair Value Measurement and Application** - This Statement addresses accounting and financial reporting issues related to fair value measurements. The definition of *fair value* is 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. This Statement provides guidance for determining a fair value measurement for financial reporting purposes. This Statement also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements.

The requirements of this Statement enhance comparability of financial statements among governments by requiring measurement of certain assets and liabilities at fair value using a consistent and more detailed definition of fair value and accepted valuation techniques. This Statement also enhances fair value application guidance and related disclosures in order to provide information to financial statement users about the impact of fair value measurements on a government's financial position.

The pronouncement became effective, and as disclosed in Note 1S to the financial statements. This statement had no effect on 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.

#### *Estimates*

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on 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, 2016. 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, 2016. 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. Management has corrected all/certain such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

### ***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 31, 2016.

### ***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 governmental unit'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 Matters

### *Other Information Accompanying the Financial Statements*

With respect to the supplementary information accompanying the financial statements, 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.

With respect to the required supplementary information accompanying the financial statements, we 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 did not express an opinion nor 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.

\*\*\*\*\*

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 31, 2016

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## Financial Review of Fiscal Year 2016

### Annual Budget Performance Report





## FY16 ANNUAL BUDGET PERFORMANCE

This section provides a budget analysis for the Water and Wastewater systems for Fiscal Year 2016.

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 normal revenues were less than budget by \$30.8 million, and normal operating expenses were less than budget by approximately \$17.0 million.
- **Drought Surcharge & Contingency Budget:** Drought-related revenues were \$51.8 million, and expenses were \$23.9 million.
- **Rate Stabilization Funds:** Actual year-end revenues and expense savings were stronger than anticipated which eliminated the need to drawdown any rate stabilization funds.

### Wastewater System Overview

- **Revenues & Expenses:** Total revenues were greater than budget by \$2.5 million, and operating expenses were less than budget by \$5.7 million.

Please refer to the specific sections for more details on revenues, operating expenses, and major capital project expenditures for each enterprise.



## FY16 ANNUAL BUDGET PERFORMANCE

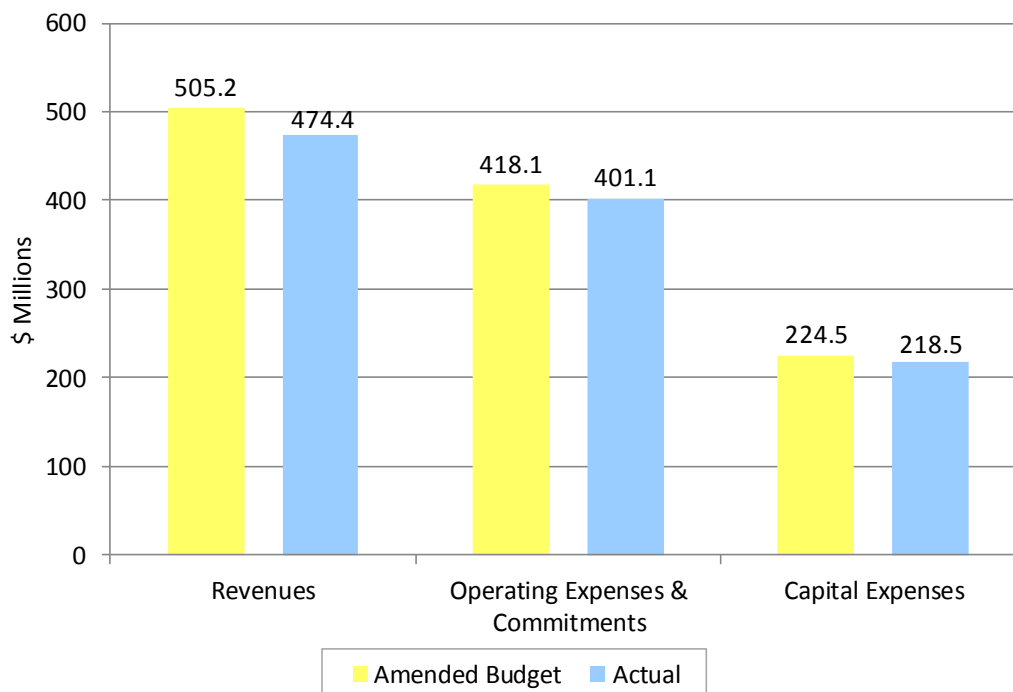
### WATER SYSTEM

#### Summary of Revenues & Expenses

The fiscal year 2016 budget is the first biennial budget to include a drought contingency appropriation. Drought-related emergency conditions significantly impact both revenues and expenses. Since drought conditions are temporary in nature, revenues and expenses associated with the drought are tracked separately from normal weather operations which are shown below. Drought-related revenues and expenses are shown later in this report.

The following chart depicts the comparison of budget to actuals for revenues, operating expenditures and capital cash flow expenses.

- Total Water System revenues were \$474.4 million or 94% of fiscal year budgeted revenues of \$505.2 million.
- Operating expenses and commitments including debt service totaled \$401.1 million or 96% of the total amended budget of \$418.1 million.
- Capital cash flow expenses totaled \$218.5 million or 97% of the total budgeted cash flow of \$224.5 million.



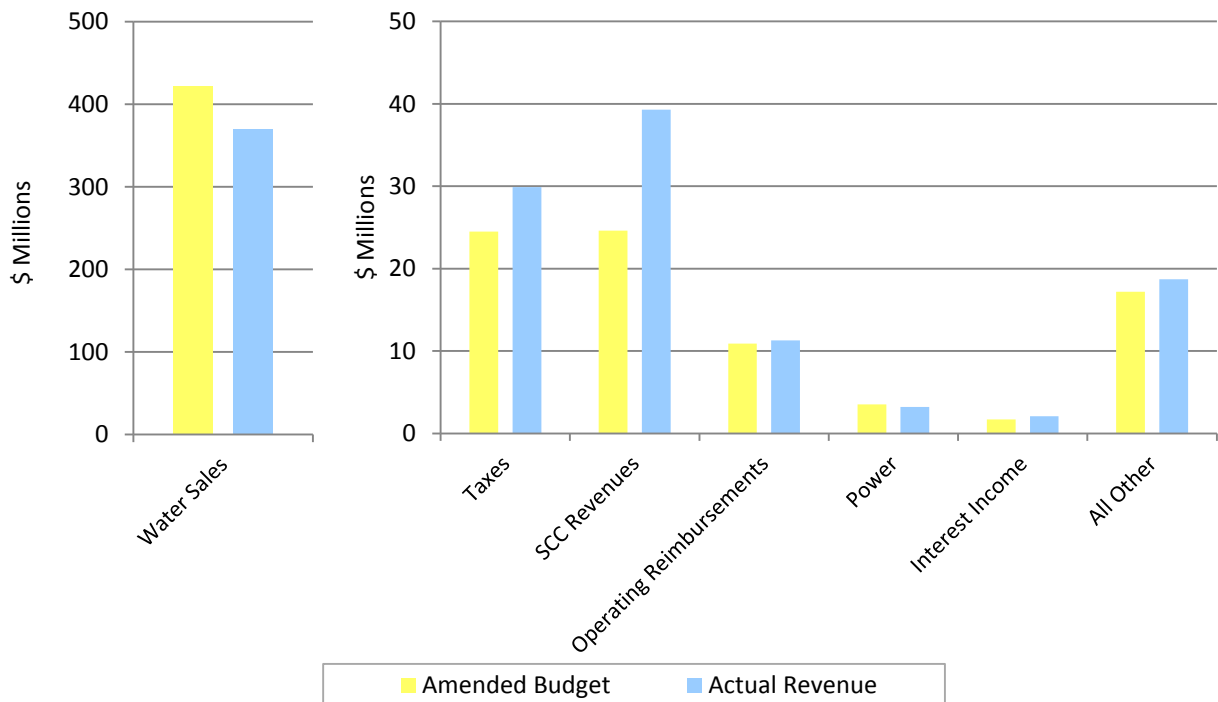
Actual year-end revenues and expense savings were stronger than forecasted at the FY17 Mid-Cycle Budget workshop which eliminated the need to drawdown any rate stabilization funds.



## FY16 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 \$474.4 million or 94% of budgeted revenues as shown in the table below:



WATER REVENUES ( \$ Millions)				
	Amended Budget	YTD Actuals	Over/(Under) Budget	% of Budget
Water Sales	422.8	369.9	(52.9)	87%
Taxes	24.5	29.9	5.4	122%
SCC Revenues	24.6	39.3	14.7	160%
Operating Reimbursements	10.9	11.3	0.4	104%
Power	3.5	3.2	(0.3)	92%
Interest Income	1.7	2.1	0.4	121%
All Other	17.2	18.7	1.5	109%
<b>Total Revenues</b>	<b>505.2</b>	<b>474.4</b>	<b>(30.8)</b>	<b>94%</b>

Numbers in table reflect rounding.



## FY16 ANNUAL BUDGET PERFORMANCE

The major revenue variances were:

- **Water Sales** of \$369.9 million were 87% of the \$422.8 million budget. Water consumption averaged 128.1 MGD which is 13.7% lower compared to 148.5 MGD for the prior fiscal year. The budgeted average daily water consumption was 151 MGD. Drought surcharge and excessive use penalty revenues are excluded from the water sales revenue. If the drought-related revenues were added to normal water sales and compared to a seasonally adjusted year-to-date budget, revenues would be down approximately \$1.1 million or less than 1%.
- **Taxes** of \$29.9 million were 122% of budget due to increased property assessment values.
- **SCC Revenues** of \$39.3 million were 160% of the \$24.6 million budget due to increased building activity within the service area.
- **Interest Income** of \$2.1 million was 121% of the \$1.7 million budget. This increase is due to the District reimbursing itself with the proceeds of bonds into the general fund, as a result of which there were additional funds to invest.
- **All Other** revenue of \$18.7 million was 109% of the \$17.2 million budget. The District received more reimbursements from the Upper Mokelumne River Watershed Authority than planned.

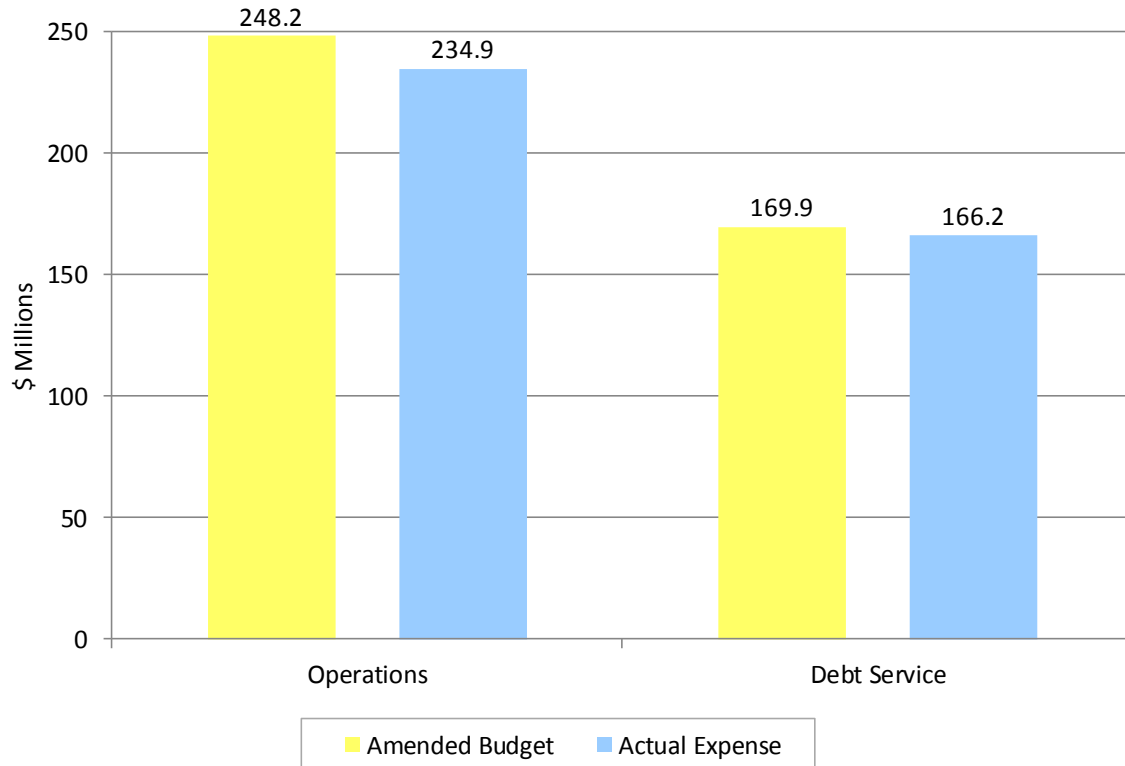




## FY16 ANNUAL BUDGET PERFORMANCE

### 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 \$401.1 million or 96% of the total amended budget of \$418.1 million.



OPERATING EXPENDITURES BY CATEGORY (\$ Millions)				
	Amended Budget	YTD Actuals	Over/(Under) Budget	% of Budget
Operations	248.2	234.9	(13.3)	95%
Debt Service	169.9	166.2	(3.7)	98%
<b>Total</b>	<b>418.1</b>	<b>401.1</b>	<b>(17.0)</b>	<b>96%</b>

Numbers in table reflect rounding.

Savings are attributable to:

- **Operations** savings of \$13.3 million are primarily due to unspent contingency funds, a higher than budgeted offset for the administration of capital of \$3.6 million which decreases operating expenses by a like amount, and lower overall operations costs.
- **Debt Service** savings of \$3.7 million are due to lower than budgeted interest rates.

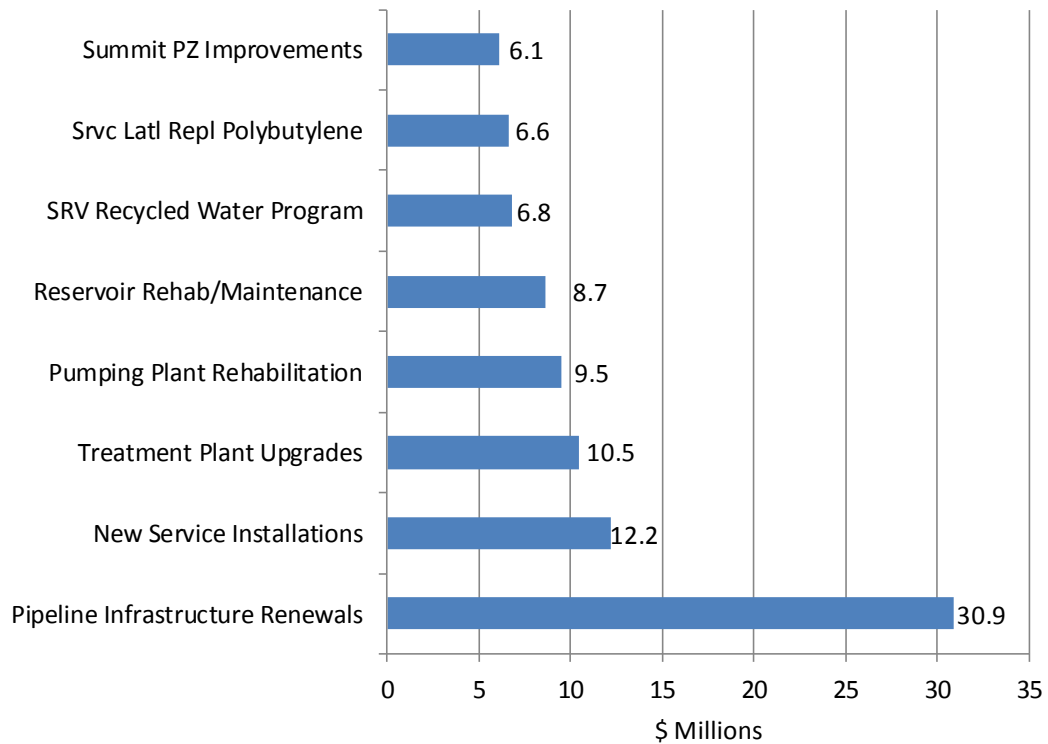


## FY16 ANNUAL BUDGET PERFORMANCE

### Water System Capital Expenditures

For the fiscal year, capital cash flow expenditures totaled \$218.5 million or 97% of the total budgeted cash flow of \$224.5 million. Of this amount, direct costs associated with capital projects totaled \$174.8 million and the remaining \$43.6 million represents administration of capital expenses.

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



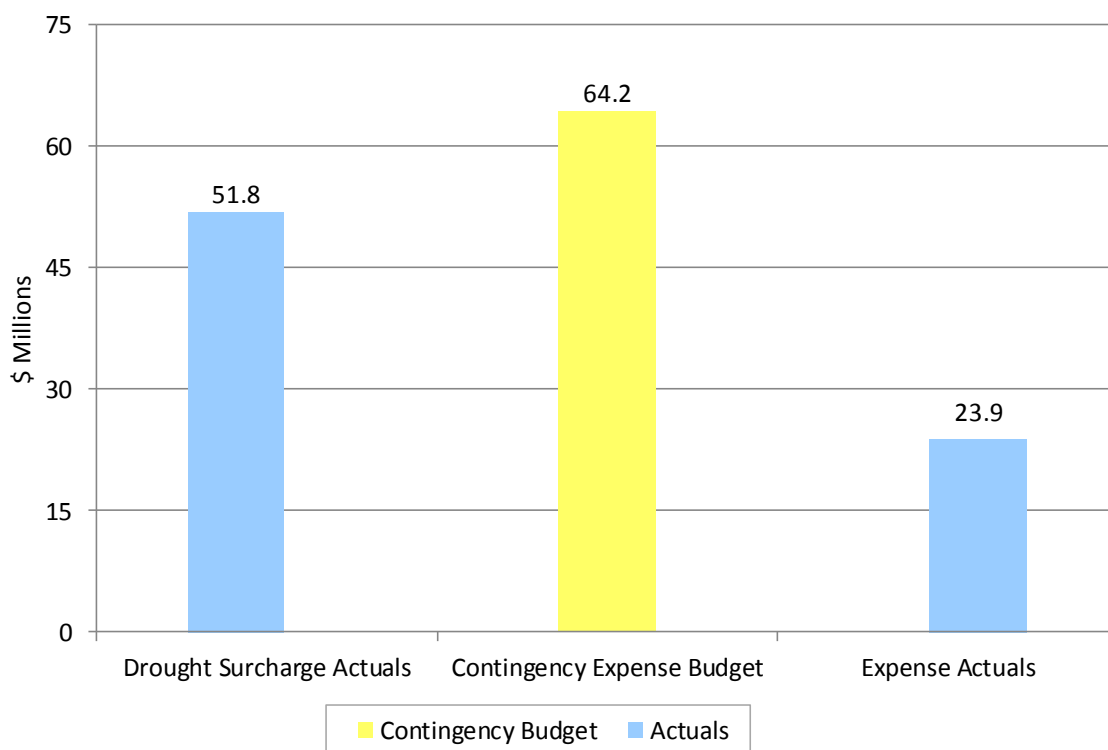


## FY16 ANNUAL BUDGET PERFORMANCE

### Water System Drought Surcharge and Contingency

During the majority of the fiscal year, a Stage 4 drought emergency was in effect. The Board of Directors declared an end to the drought emergency. The drought surcharge was collected through June 30, 2016, and suspended thereafter. The drought significantly impacted water sales revenues and operation expenditures during the year.

The following chart depicts the actuals for drought surcharge revenues, and operating expenditures.



The drought cost approximately \$75 million which included lost water sales revenue, and added operational costs such as the purchase and treatment of supplemental water supplies and conservation outreach. The drought surcharge helped recover approximately \$51.8 million. Drought-related expenses were \$23.9 million of which the majority of the expense was driven by the purchase of supplemental water for \$17.3 million. The remaining amount of \$6.6 million was spent on energy for pumping, chemicals, limited-term staff for customer outreach, and other non-labor expenses. The added operational costs were less than budgeted primarily due to a lower volume of water purchases than anticipated.



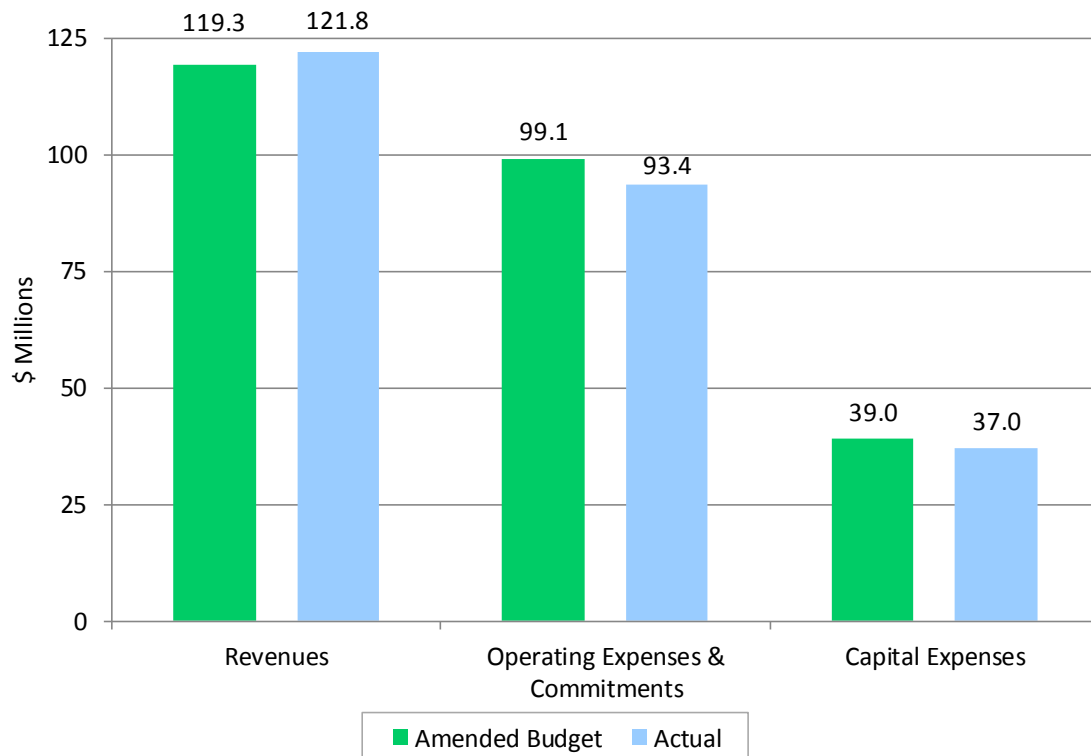
## FY16 ANNUAL BUDGET PERFORMANCE

### WASTEWATER SYSTEM

#### Summary of Revenues & Expenses

The following chart depicts the comparison of budget to actuals for revenues, operating expenditures and capital cash flow expenses:

- Total Wastewater System revenues were \$121.8 million or 102% of fiscal year budgeted revenues of \$119.3 million.
- Operating expenses and commitments including debt service totaled \$93.4 million or 94% of the total amended budget of \$99.1 million.
- Capital cash flow expenses totaled \$37.0 million or 95% of the total budgeted cash flow of \$39.0 million.

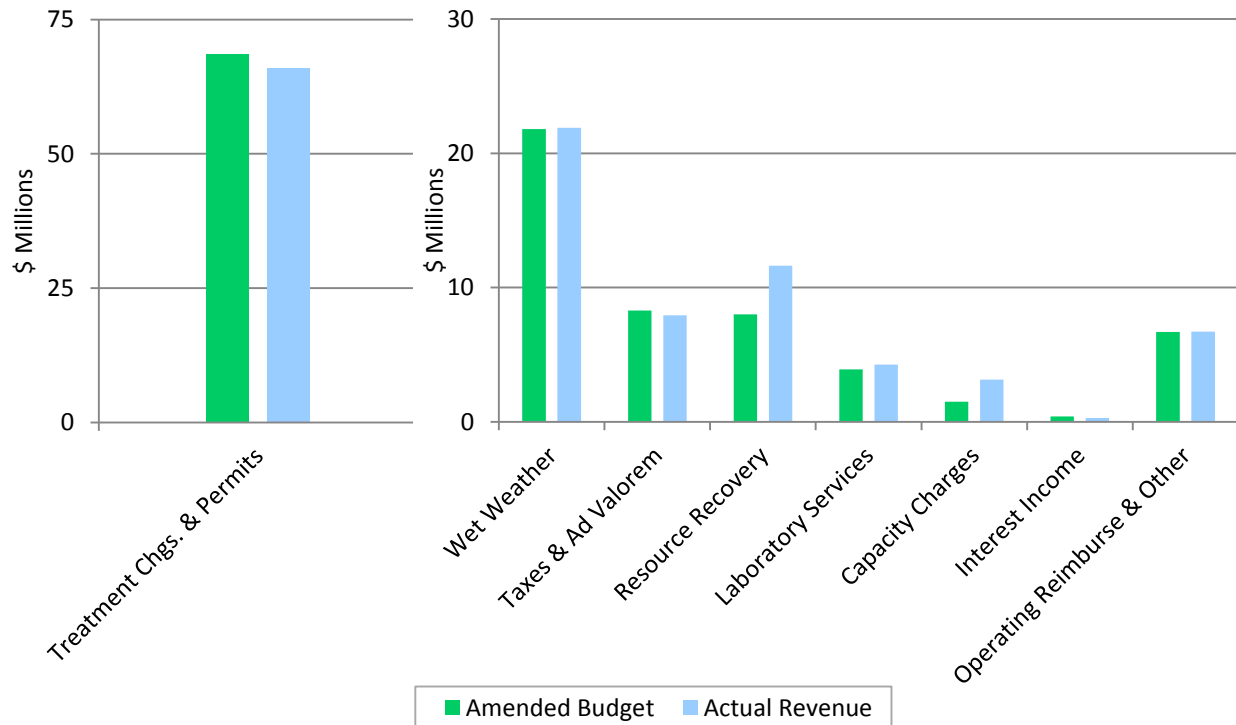




## FY16 ANNUAL BUDGET PERFORMANCE

### Wastewater System Revenues

The following charts show the various sources of Wastewater System revenue including a comparison to budget. Total revenues were \$121.8 million or 102% of budgeted revenues as shown in the table below:



WASTEWATER REVENUES (\$ Millions)				
	Amended Budget	YTD Actuals	Over/(Under) Budget	% of Budget
Treatment Charges & Permits	68.7	65.9	(2.8)	96%
Wet Weather	21.8	21.9	0.1	101%
Taxes & Ad Valorem	8.3	7.9	(0.4)	96%
Resource Recovery	8.0	11.6	3.6	145%
Laboratory Services	3.9	4.3	0.4	109%
Capacity Charges	1.5	3.1	1.6	209%
Interest Income	0.4	0.3	(0.1)	70%
Operating Reimburse & Other	6.7	6.7	0.0	100%
<b>Total Revenues</b>	<b>119.3</b>	<b>121.8</b>	<b>2.5</b>	<b>102%</b>

Numbers in table reflect rounding.



## FY16 ANNUAL BUDGET PERFORMANCE

The major revenue variances were:

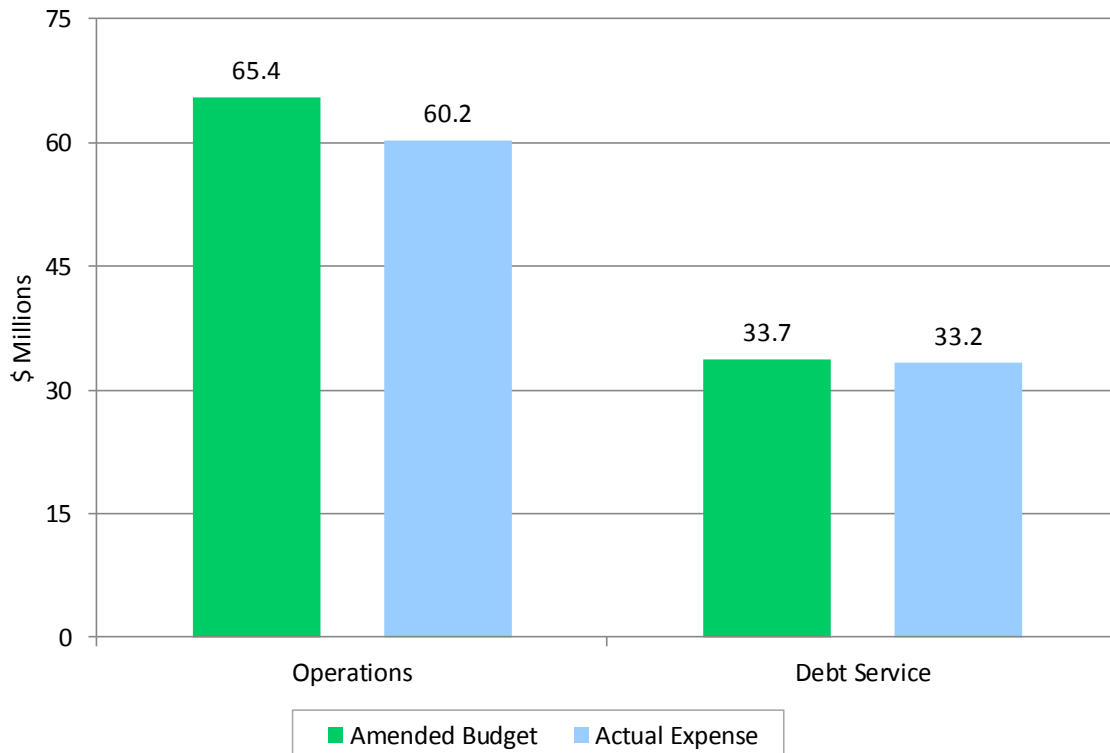
- **Treatment Charges & Permits** totaled \$65.9 million or 96% of the \$68.7 million budget primarily due to customer conservation in response to the Stage 4 drought emergency.
- **Resource Recovery** revenue totaled \$11.6 million or 145% of the \$8.0 million budget due to continued business above the budgeted level.
- **Laboratory Services** totaled \$4.3 million or 109% of the \$3.9 million budget due to higher than budgeted services provided to outside agencies.
- **Capacity Charges** totaled \$3.1 million or 209% of the \$1.5 million budget due to higher than expected collection of capacity fees from increased building activity.
- **Interest Income** totaled \$0.3 million or 70% of the \$0.4 million budget due to lower than projected interest rates on short-term investments.



## FY16 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 \$93.4 million or 94% of the total amended budget of \$99.1 million.



OPERATING EXPENDITURES BY CATEGORY (\$ Millions)				
	Amended Budget	YTD Actuals	Over/(Under) Budget	% of Budget
Operations	65.4	60.2	(5.2)	92%
Debt Service	33.7	33.2	(0.5)	99%
<b>Total</b>	<b>99.1</b>	<b>93.4</b>	<b>(5.7)</b>	<b>94%</b>

Numbers in table reflect rounding.

Savings are attributable to:

- **Operations** savings of \$5.2 million are primarily attributable to overall lower operations expenditures, unspent contingency funds, and a higher than budgeted offset for the administration of capital of \$1.0 million which decreases operating expenses by a like amount.
- **Debt Service** savings of \$0.5 million are attributable to lower than budgeted interest rates and no issuance of additional revenue bonds during the fiscal year.

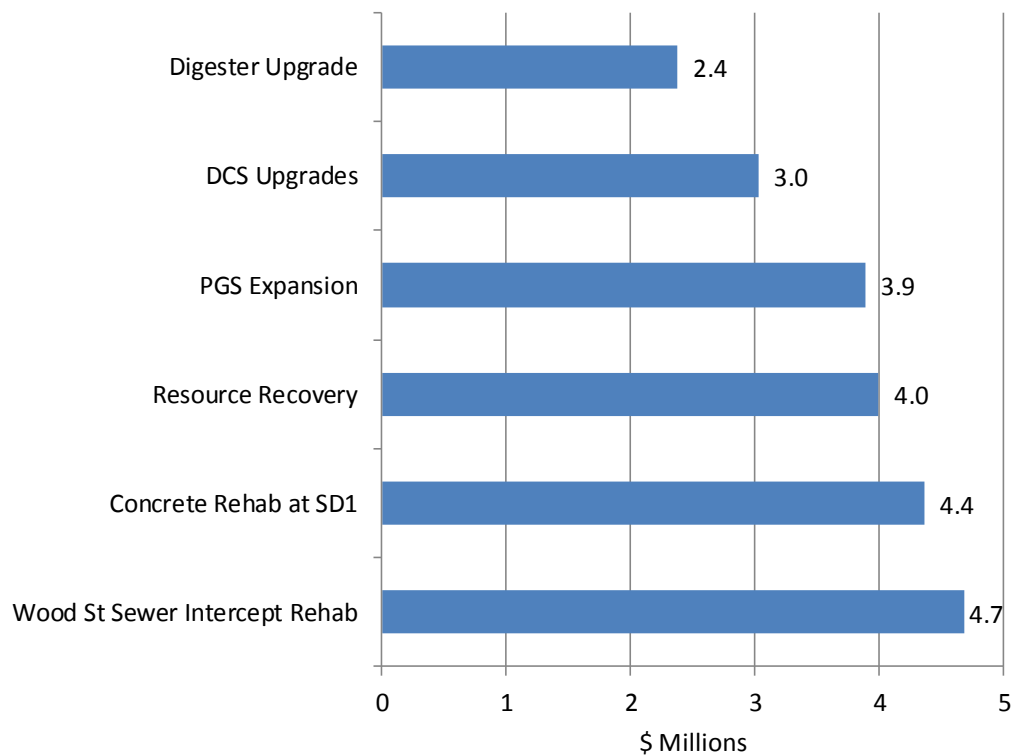


## FY16 ANNUAL BUDGET PERFORMANCE

### Wastewater System Capital Expenditures

For the fiscal year, capital cash flow expenditures totaled \$37.0 million for the fiscal year or 95% of the budgeted cash flow of \$39.0 million. Of this amount, direct costs associated with capital projects totaled \$33.0 million and the remaining \$4.0 million represents administration of capital expenses.

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







## FY16 ANNUAL BUDGET PERFORMANCE

### **GRANTS AND LOANS SUMMARY**

#### **GRANTS**

The District received two grant awards totaling approximately \$0.2 million. Two grant applications totaling \$1.3 million are pending for Water and Energy Conservation through Advanced Metering Infrastructure.

The following are the grant awards:

Bay Area Regional Reliability Drought Contingency Plan: A \$0.2 million grant was awarded to develop regional solutions to improve the Bay Area's water supply reliability during droughts. This work is in cooperation with seven other Bay Area water agencies.

District Wellness Program: The District received an award of two thousand dollars for the District's Wellness Program to be hosted in January 2017.

No grants were denied or withdrawn during the fiscal year.

#### **LOANS**

The District submitted two State Revolving Fund (SRF) loan applications totaling approximately \$29.1 million:

South Reservoir Replacement: The loan amount is approximately \$17.8 million to construct one new 9 million gallon water storage tank within the footprint of the existing reservoir basin in Castro Valley.

MacArthur/Davenport Pipeline Replacement: The loan amount is approximately \$11.3 million to replace an aging potable water transmission pipeline in the 39<sup>th</sup> Avenue Pressure Zone located in the City of Oakland.

#### **ADMINISTRATION**

During FY16, the District monitored and administered approximately \$11.8 million in grants and \$30.1 million in loans previously awarded. An additional \$9.7 million in grant funded projects that benefit EBMUD is administered by other agencies.





## Financial Review of Fiscal Year 2016

### Financial Indicators





## FY16 FINANCIAL INDICATORS

This section provides a trend analysis for Water and Wastewater systems from FY07 to FY16.

### 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 a decrease in liabilities. Capital contribution decreased due to completion of Seismic Improvement Program.
- **Operating Indicators** remained strong with a stable customer base and solid collection controls, while rates remained below the median for comparable agencies.
- **Retirement System** continued to improve its funding percentage while its position relative to other agencies remained unchanged.

### 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, a decrease in liabilities and a slight increase in capital contributions.
- **Operating Indicators** remained strong with a stable customer base and solid collection controls, while rates remained above the median for comparable agencies.

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

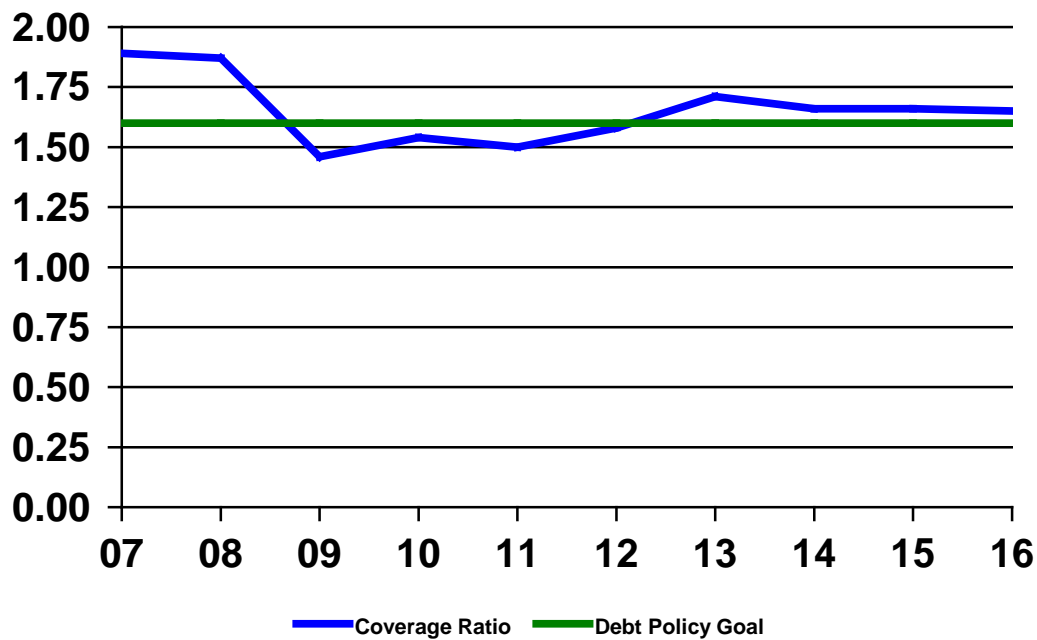


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 FY16 water system debt service coverage ratio of 1.65 met the KPI target. The ratio has exceeded the debt policy goal of 1.6 times coverage in six of the ten years reported.



Coverage Ratio										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Actual	1.89	1.87	1.46	1.54	1.5	1.58	1.71	1.66	1.66	1.65
Target	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Performance	+	+	-	-	-	-	+	+	+	+

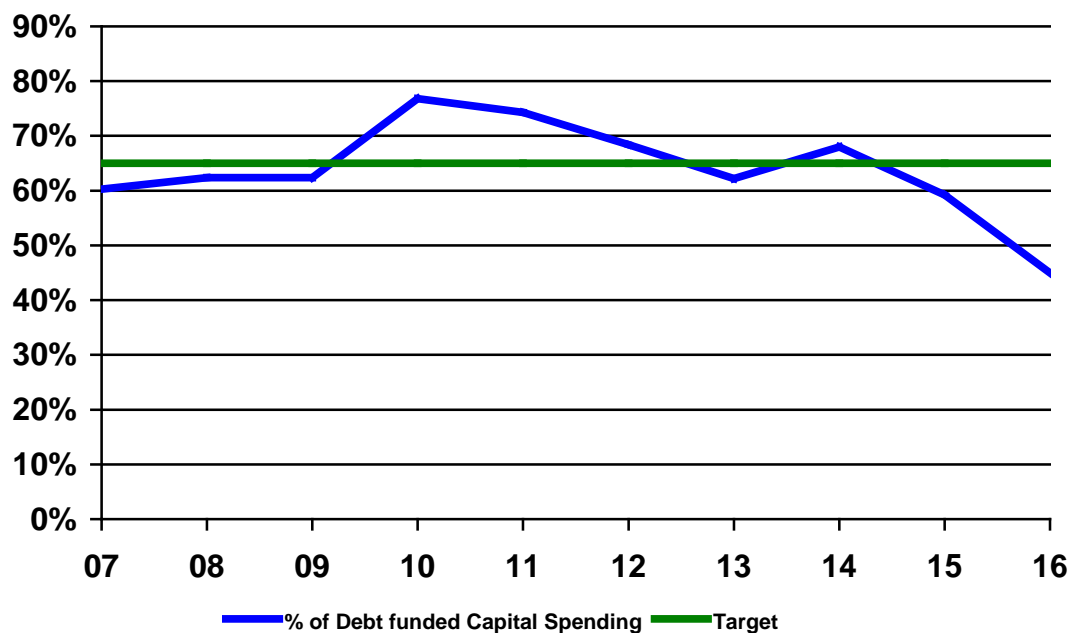


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 FY16, the water system did not issue new debt. As a result, the percentage of debt funded capital spending decreased from 59% to 45%.



Percentage of Debt Funded Capital Spending										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Actual	60%	62%	62%	77%	74%	68%	62%	68%	59%	45%
Target	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Performance	+	+	+	-	-	-	+	-	+	+

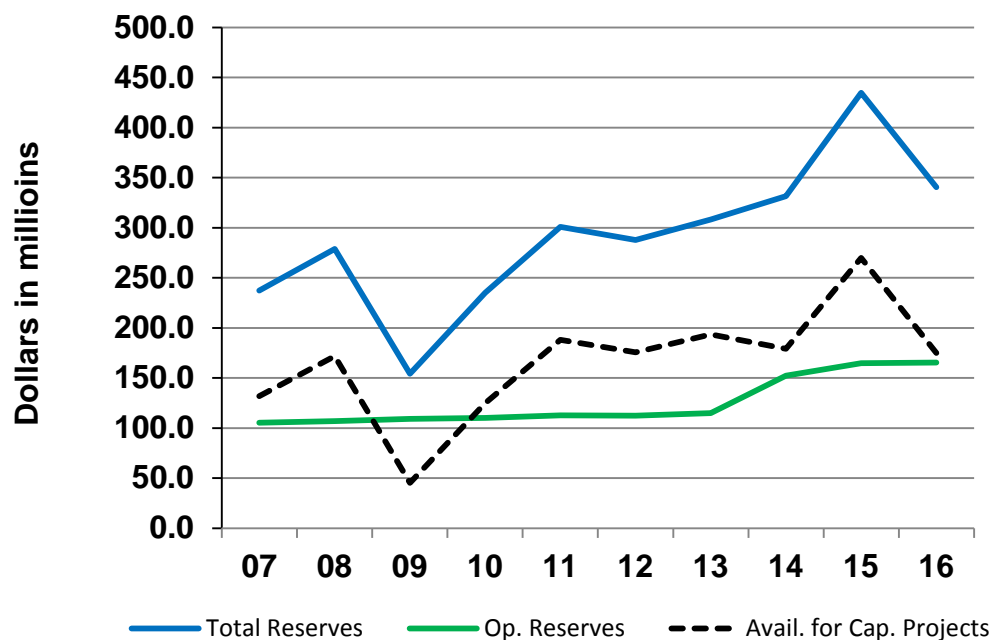


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 \$340.4 million exceeds the operating reserve balances of \$165.3 million established by the District's Financial Reserve Policy. Balances in excess of the target will be used to fund the Water System Capital Projects.



Reserve Balances (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Total Reserves	237.3	278.7	154.4	235.2	300.8	287.8	308.3	331.6	434.7	340.4
Operating Reserves	105.4	106.8	109.1	110.3	112.7	112.3	114.9	152.4	164.9	165.3
Avail. for Cap. Projects	131.9	171.9	45.3	124.9	188.1	175.5	193.4	179.2	269.8	175.1
Performance	+	+	+	+	+	+	+	+	+	+



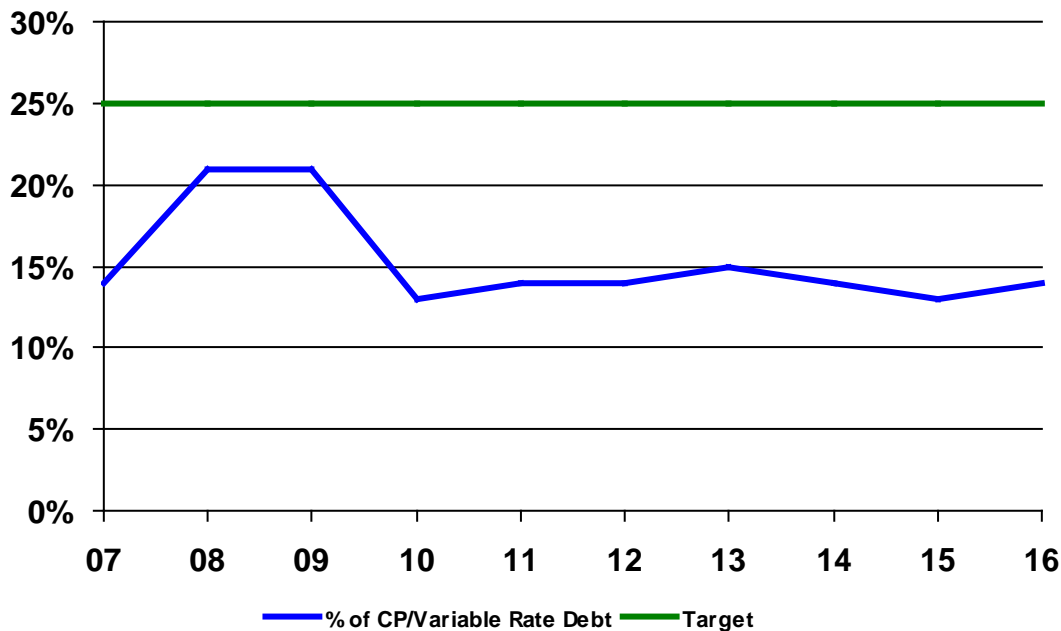


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 FY16, the water system met the KPI target with a percentage of 14%.



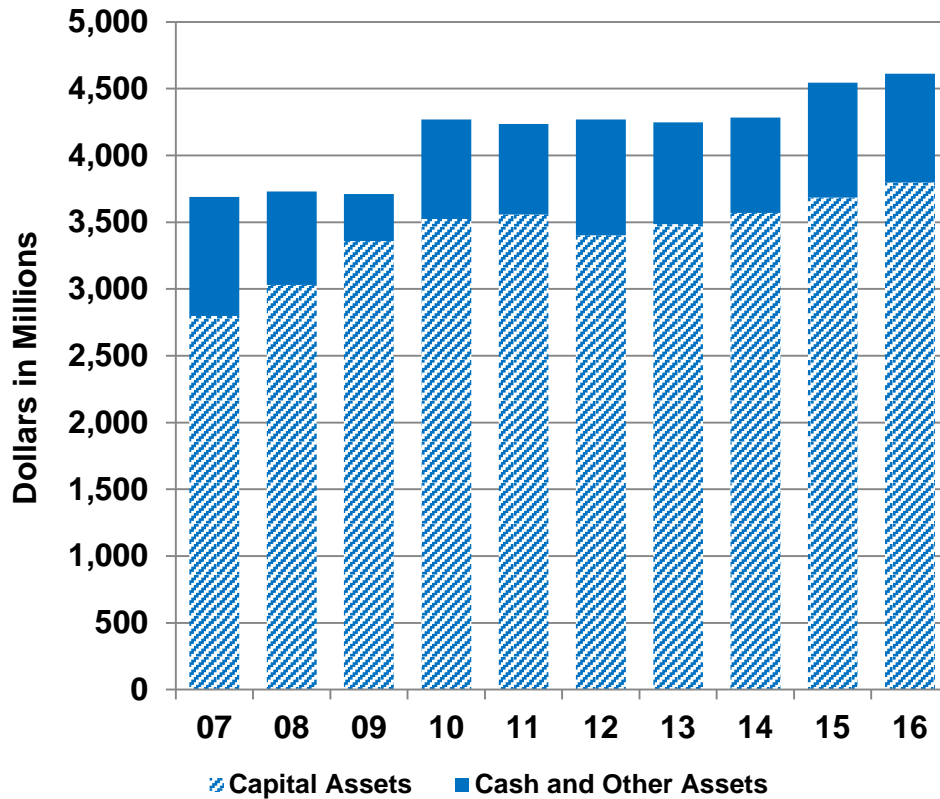
Percentage of Commercial Paper and Variable Rate Debt										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
% of CP+Var Debt	14%	21%	21%	13%	14%	14%	15%	14%	13%	14%
Target	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Performance	+	+	+	+	+	+	+	+	+	+



## FY16 FINANCIAL POSITION

### Water - Total Assets

Total Assets have increased in the past ten years from \$3.7 billion to \$4.6 billion. The amount of Capital Assets (e.g. buildings, pipelines, reservoirs, etc.) increased in FY16 to \$3.8 billion, or 82% of Total Assets.



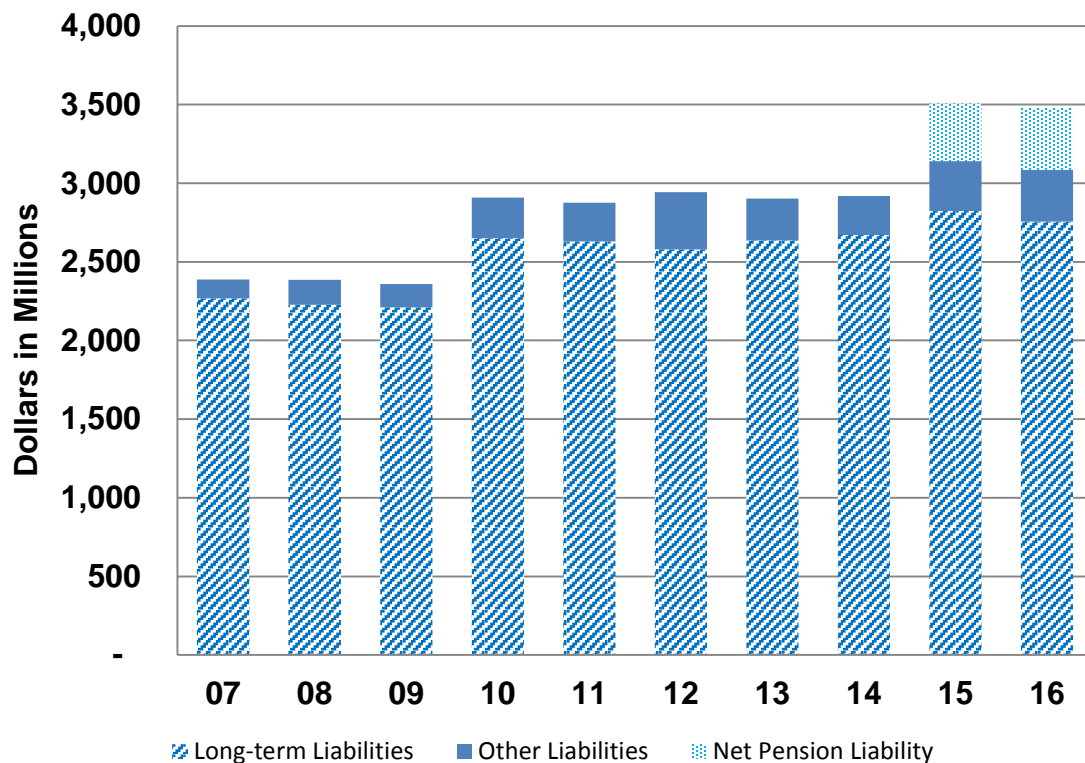
Total Assets (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Capital Assets	2,798	3,029	3,357	3,524	3,556	3,400	3,485	3,568	3,684	3,796
Cash and Other Assets	891	700	353	744	679	869	761	715	859	814
Total Assets	3,689	3,729	3,710	4,268	4,235	4,269	4,246	4,283	4,543	4,610
% of Capital to Total Assets	76%	81%	91%	83%	84%	80%	82%	83%	81%	82%



## FY16 FINANCIAL POSITION

### Water - Total Liabilities

Total Liabilities over the last ten years have increased from \$2.4 billion in FY07 to \$3.5 billion in FY16. 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. In compliance with GASB 68, the District began recognizing Net Pension Liability in FY15.



Total Liabilities (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Net Pension Liability									365	393
Other Liabilities	121	157	147	258	246	364	266	248	318	329
Long-term Liabilities	2,267	2,228	2,211	2,650	2,630	2,578	2,637	2,671	2,823	2,756
Total Liabilities	2,388	2,385	2,358	2,908	2,876	2,942	2,903	2,919	3,506	3,478
% of Debt to Total Liabilities	95%	93%	94%	91%	91%	88%	91%	92%	81%	80%

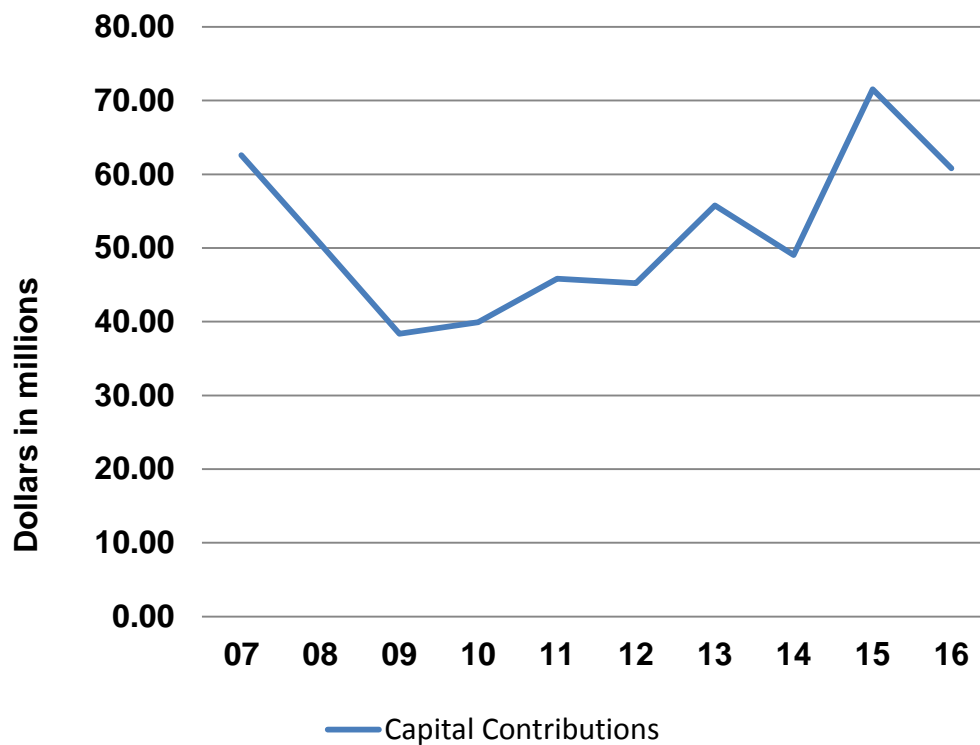


## FY16 FINANCIAL POSITION

### Water - Capital Contributions

Capital Contributions primarily consists of System Capacity Charges (SCC) and Seismic Improvement Program (SIP) surcharges. 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.

In FY16, Capital Contributions decreased from \$72 million in FY15 to \$61 million primarily due to completion of the Seismic Improvement Program and discontinuation of the SIP surcharge.



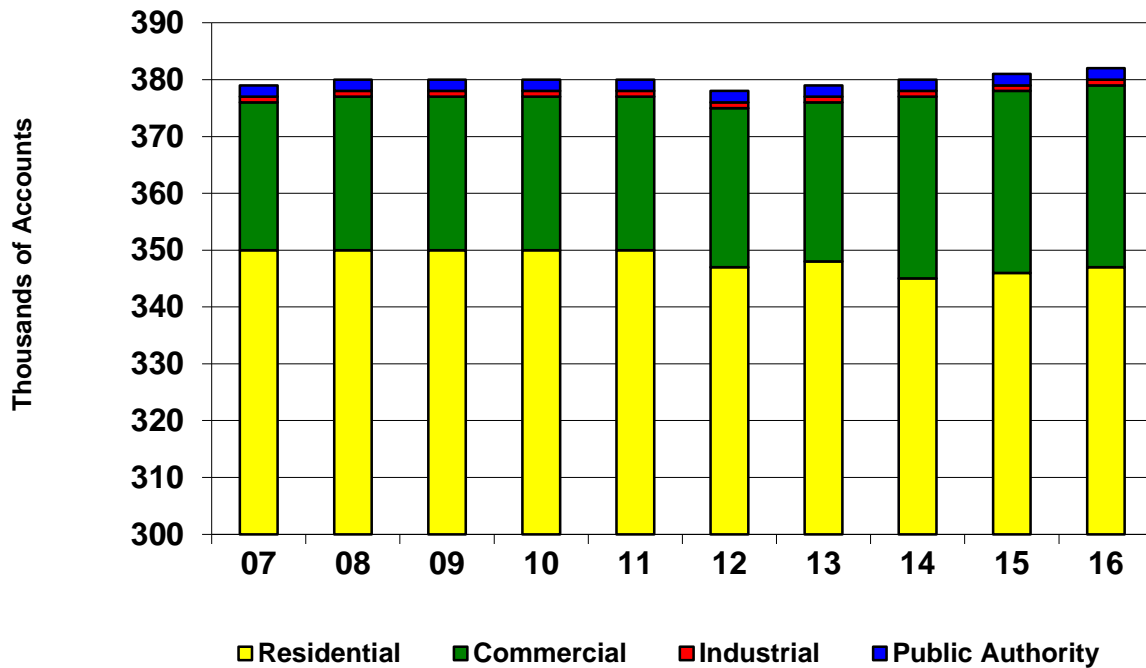
Capital Contributions (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
System Capacity Charges	27.2	19.74	10.84	12.55	17.63	16.08	22.67	20.37	29.73	39.32
Earned Contributions on Construction	18.2	10.37	10.84	6	6.48	5.87	4.54	5.24	17.08	14.8
Seismic Improvement Surcharge	14.34	14.84	15.48	16.66	18.1	19.17	20.59	22.68	22.16	0.03
Grants and Other Reimbursements	2.85	5.63	1.2	4.71	3.61	4.09	7.99	0.75	2.56	4.4
Capital Contributions	62.59	50.58	38.36	39.92	45.82	45.21	55.79	49.04	71.53	60.8



## FY16 OPERATING INDICATORS

### Water - Number of Accounts

The District provides water to approximately 382,114 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).



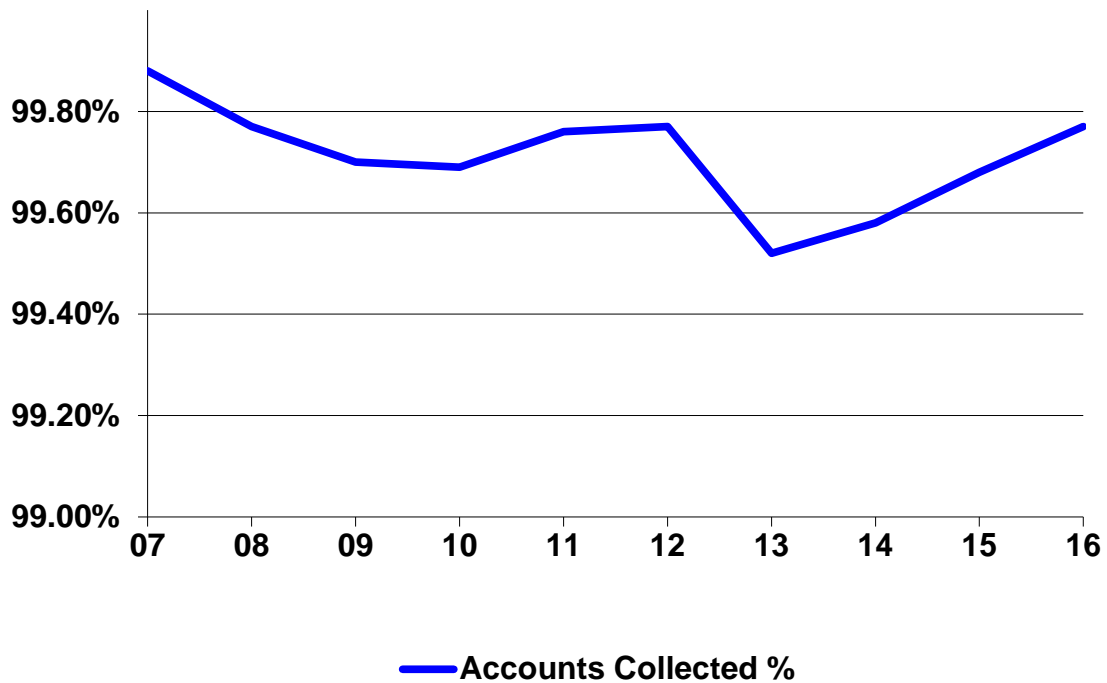
Number of Accounts (in thousands)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Residential	350	350	350	350	350	347	348	345	346	347
Commercial	26	27	27	27	27	28	28	32	32	32
Industrial	1	1	1	1	1	1	1	1	1	1
Public Authority	2	2	2	2	2	2	2	2	2	2
<b>Total accounts</b>	<b>379</b>	<b>380</b>	<b>380</b>	<b>380</b>	<b>380</b>	<b>378</b>	<b>379</b>	<b>380</b>	<b>381</b>	<b>382</b>



## FY16 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 1% of total revenue.



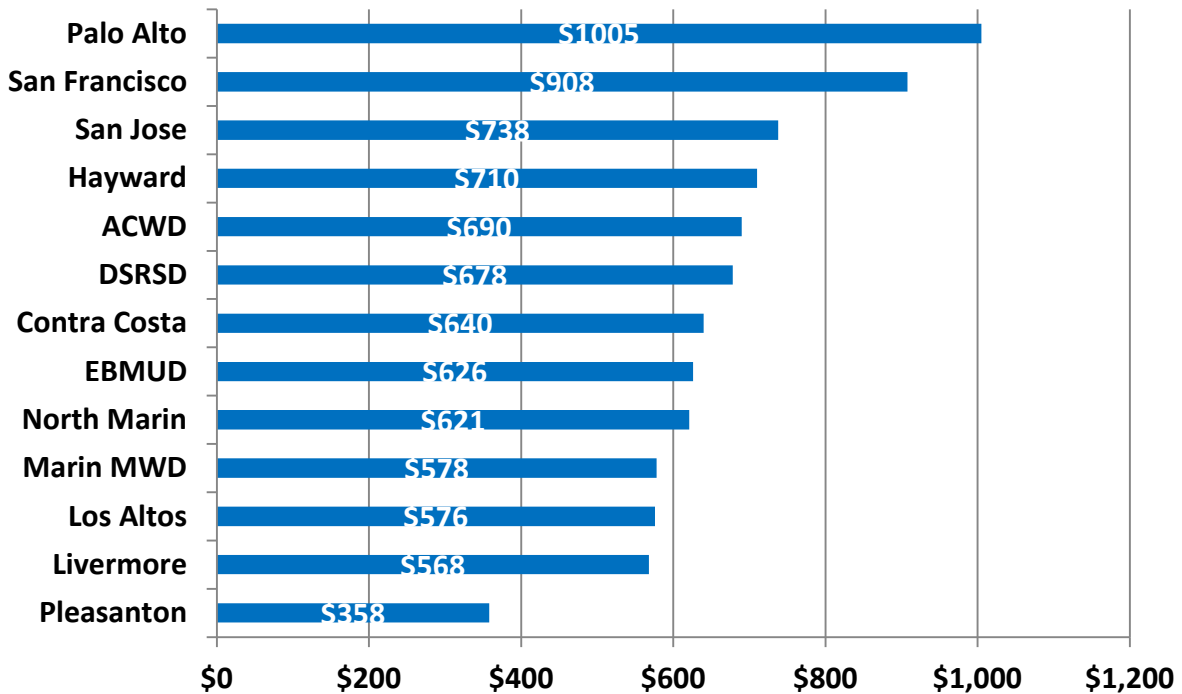
Percentage of Billed Revenue Collected										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Net Loss %	0.12%	0.23%	0.30%	0.31%	0.24%	0.23%	0.48%	0.42%	0.32%	0.23%
Accounts Collected %	99.88%	99.77%	99.70%	99.69%	99.76%	99.77%	99.52%	99.58%	99.68%	99.77%



## FY16 OPERATING INDICATORS

### Water - Comparative FY16 Single Family Residential Bills for Bay Area Agencies

The comparative annual charges are for a typical single family residential (SFR) account with a 5/8" meter using 246 gallons per day (10 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 (10 Ccf per month)	
Agency	Agency Bills
Pleasanton	358
Livermore	568
Los Altos	576
Marin MWD	578
North Marin	621
<b>EBMUD</b>	<b>626</b>
Contra Costa	640
Dublin-San Ramon	678
ACWD	690
Hayward	710
San Jose	738
San Francisco	908
Palo Alto	1005

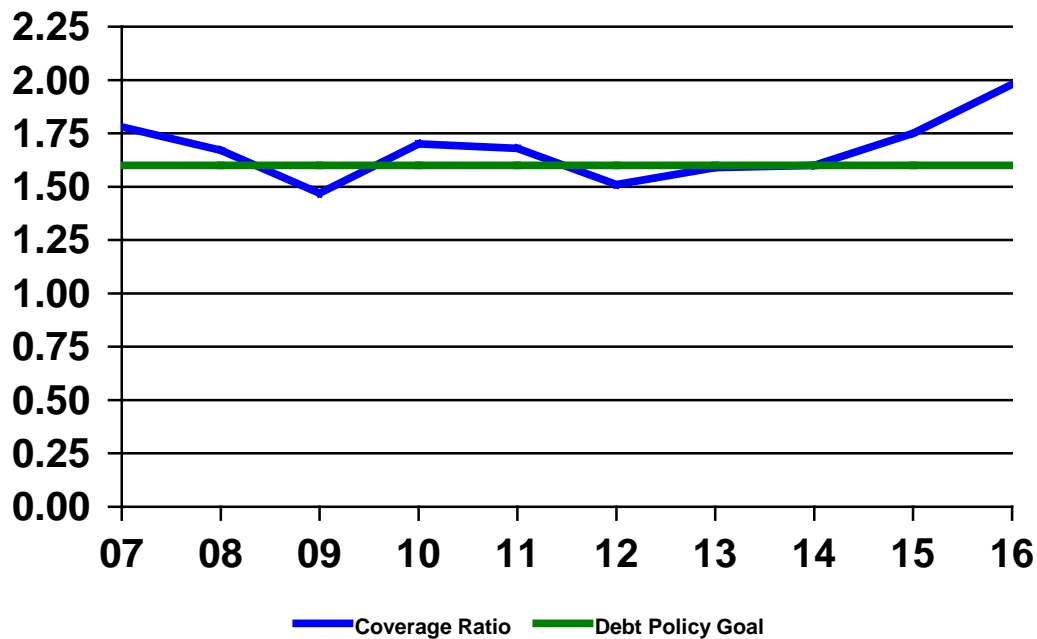


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 FY16 wastewater system debt service coverage ratio of 1.98 met the KPI target. The ratio has exceeded the debt policy goal of 1.6 times coverage in seven of the ten years reported.



Coverage Ratio										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Actual	1.78	1.67	1.47	1.7	1.68	1.51	1.59	1.6	1.75	1.98
Target	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Performance	+	+	-	+	+	-	-	+	+	+



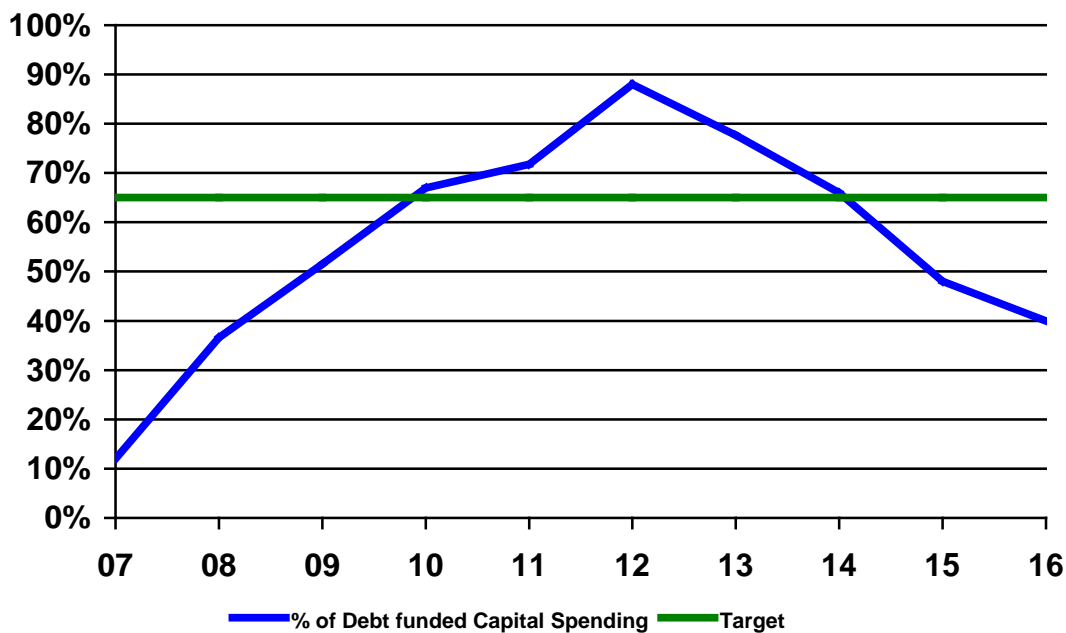


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 FY16, the wastewater system did not issue new debt. As a result, the percentage of debt funded capital spending decreased from 48% to 40%.



Percentage of Debt Funded Capital Spending										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Actual	12%	37%	52%	67%	72%	88%	78%	66%	48%	40%
Target	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Performance	+	+	+	-	-	-	-	-	+	+

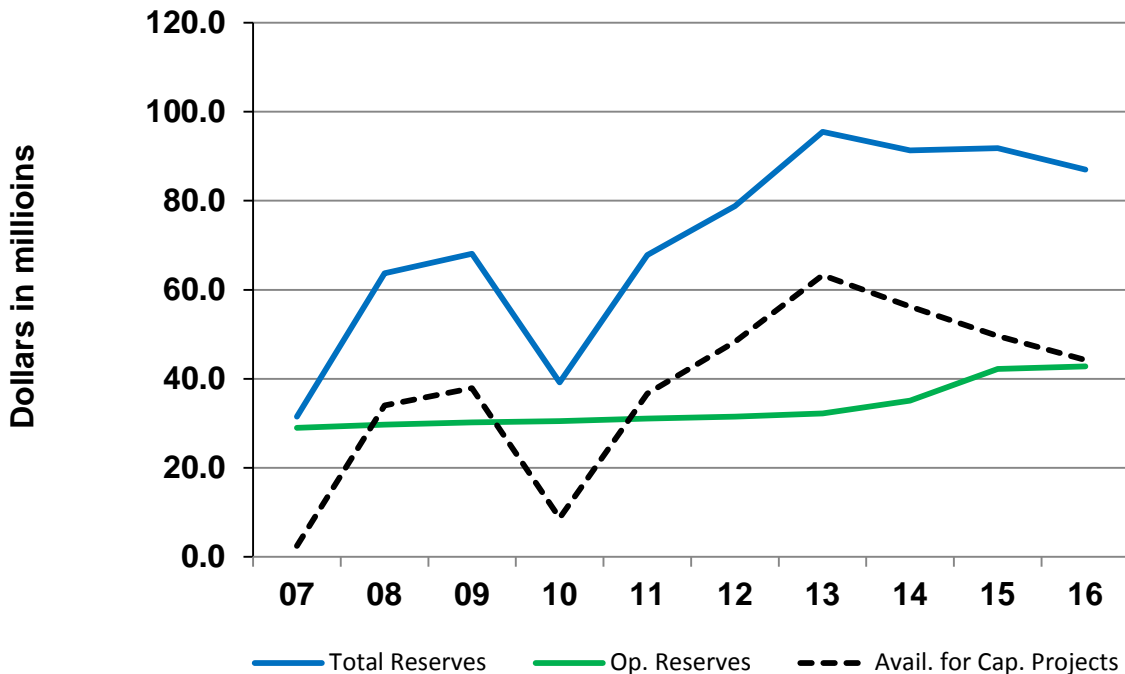


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 \$87.0 million exceeds the operating reserve balances of \$42.8 million established by the District's Financial Reserve Policy. Balances in excess of the target will be used to fund the Wastewater System Capital Projects.



Reserve Balances (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Total Reserves	31.5	63.7	68.1	39.2	67.8	78.8	95.5	91.3	91.8	87.0
Operating Reserves	29.0	29.7	30.2	30.5	31.1	31.5	32.2	35.1	42.2	42.8
Avail. for Cap. Projects	2.5	34.0	37.9	8.7	36.7	48.3	63.3	56.2	49.6	44.2
Performance	+	+	+	+	+	+	+	+	+	+

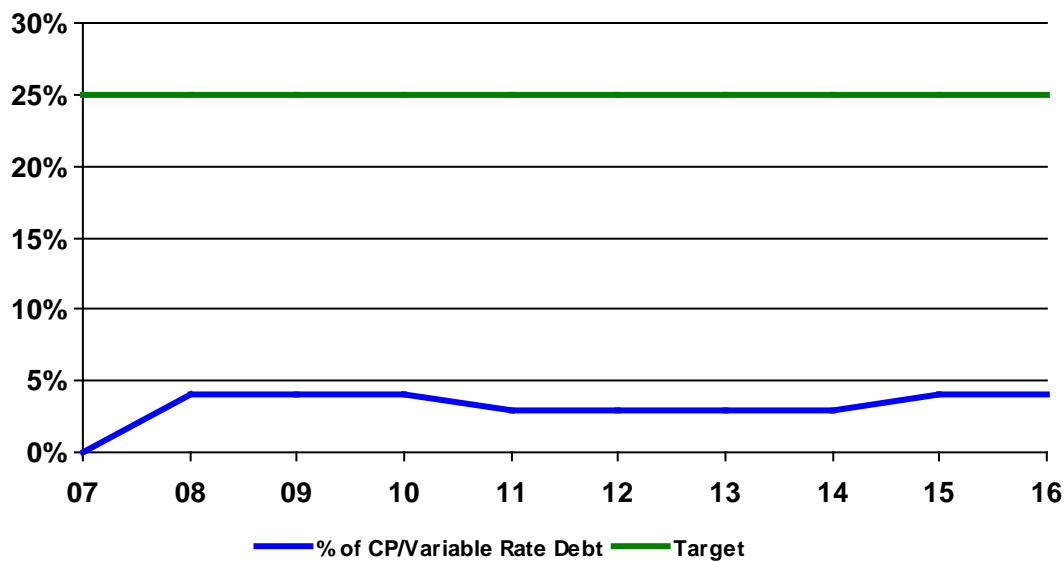


## FY16 FINANCIAL GOALS (Policy 4.02)

### 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 FY16, the wastewater system met the KPI target with a percentage of 4%. Currently the wastewater system only has extendable commercial paper.



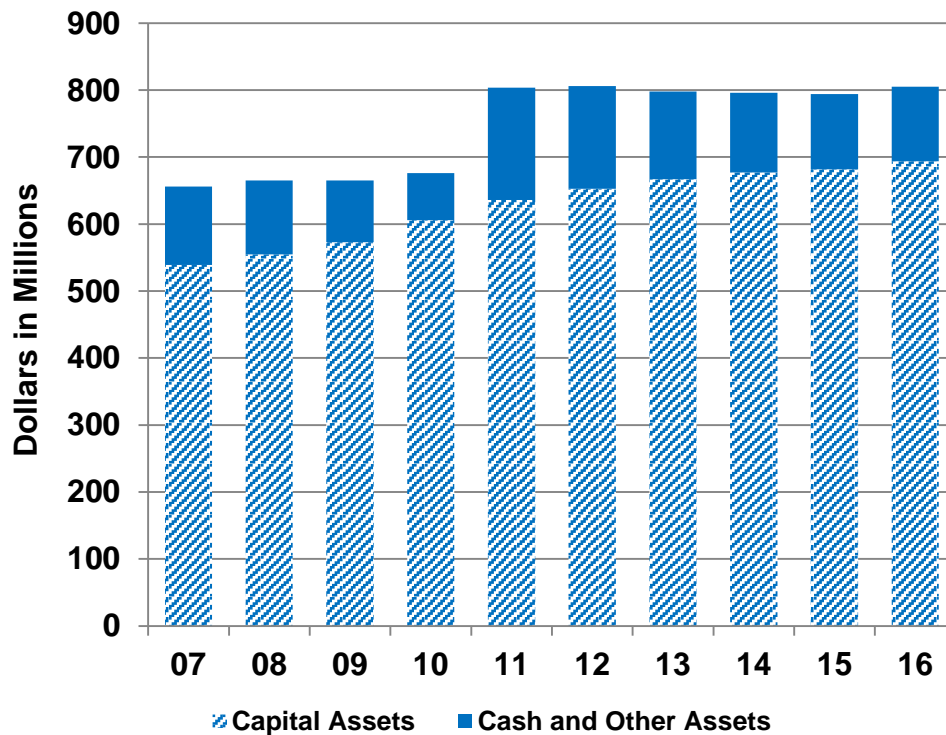
Percentage of Commercial Paper and Variable Rate Debt (in Millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
% of CP+Var Debt	-	4%	4%	4%	3%	3%	3%	3%	4%	4%
Target	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Performance	+	+	+	+	+	+	+	+	+	+



## FY16 FINANCIAL POSITION

### Wastewater - Total Assets

Total Assets increased in the last ten years from \$656 million in FY07 to \$805 million in FY16. The amount of Capital Assets increased in FY16 to \$694 million, or 86% of Total Assets.



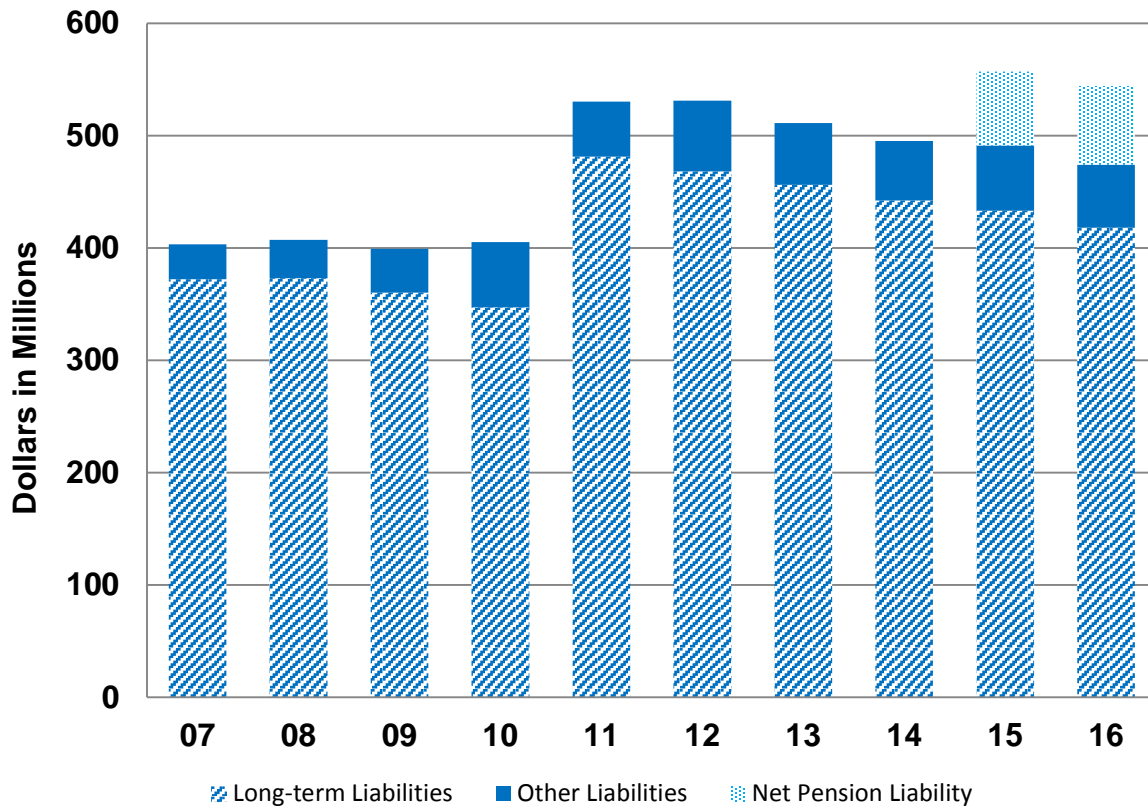
Total Assets (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Capital Assets	539	555	573	606	636	653	667	677	682	694
Cash and Other Assets	117	110	92	70	168	153	131	119	112	111
Total Assets	656	665	665	676	804	806	798	796	794	805
% of Capital to Total Assets	82%	84%	86%	90%	79%	81%	84%	85%	86%	86%



## FY16 FINANCIAL POSITION

### Wastewater - Total Liabilities

Total Liabilities over the last ten years have increased from \$403 million in FY07 to \$544 million in FY16. In compliance with GASB 68, the District began recognizing Net Pension Liability in FY15.



Total Liabilities (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Net Pension Liability									66	70
Other Liabilities	31	34	39	58	49	63	55	53	58	56
Long-term Liabilities	372	373	360	347	481	468	456	442	433	418
Total Liabilities	403	407	399	405	530	531	511	495	557	544
% of Debt to Total Liabilities	92%	91%	90%	86%	91%	88%	89%	89%	78%	77%

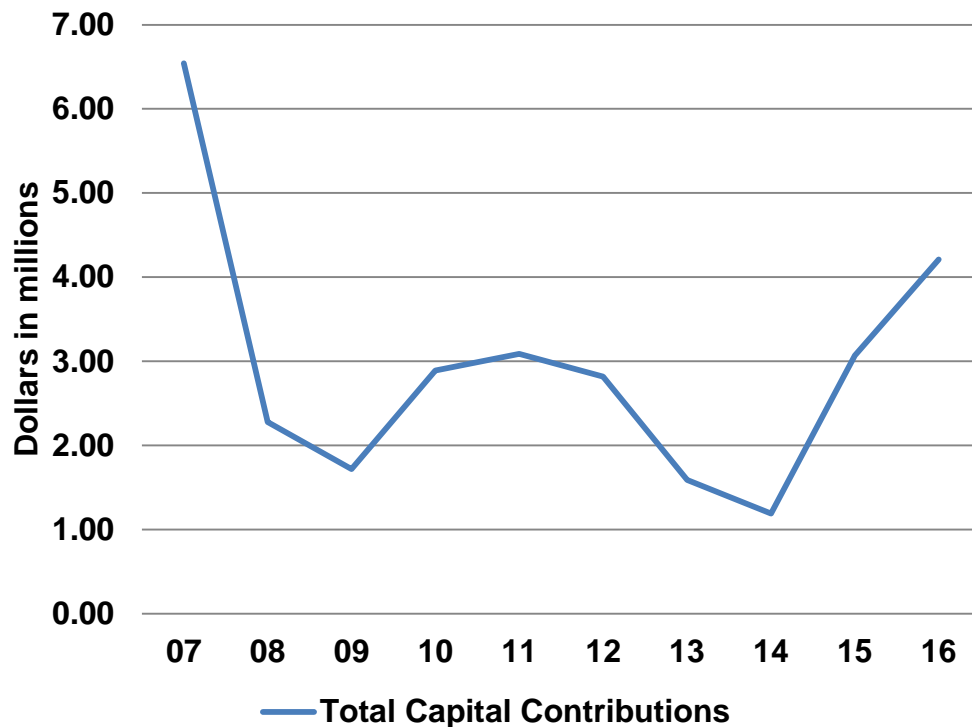


## FY16 FINANCIAL POSITION

### 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 FY16, wastewater system capital contributions increased to \$4.21 million primarily due to reimbursements received from facility relocation for earned contributions on construction.



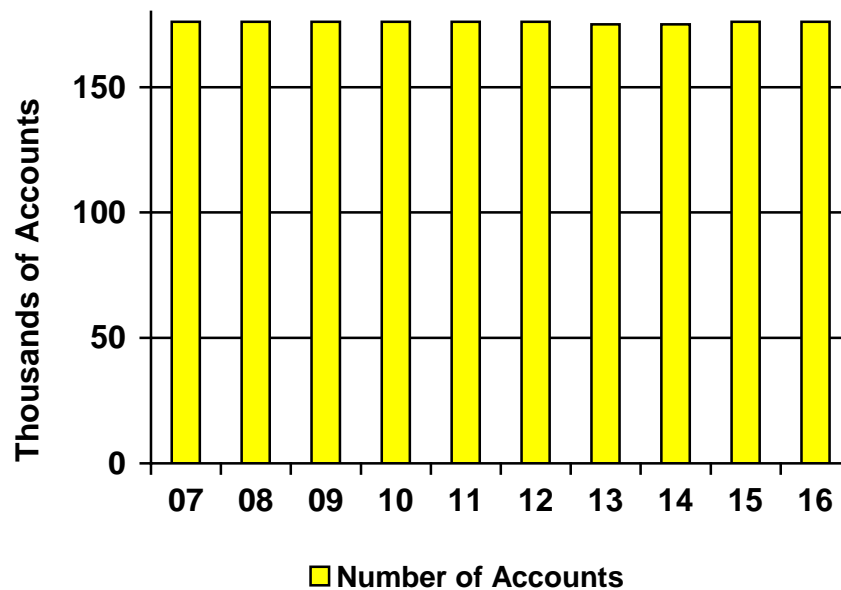
Capital Contributions (in millions)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Wastewater Capacity Fees	1.97	2.23	1.56	0.68	2.42	2.82	1.26	0.81	2.79	3.1
Earned Contributions on Construction	4.33	-	-	1.95	0.67	-	-	-	-	0.75
Grants and Other Reimbursements	0.24	0.05	0.16	0.26	-	-	0.33	0.39	0.28	0.32
Total Capital Contributions	6.54	2.28	1.72	2.89	3.09	2.82	1.59	1.19	3.07	4.21



## FY16 OPERATING INDICATORS

### Wastewater - Number of Accounts

The District provides wastewater treatment and sewage disposal service to approximately 176,286 accounts and a population of 680,000. The number of accounts has remained stable over the past 10 years.



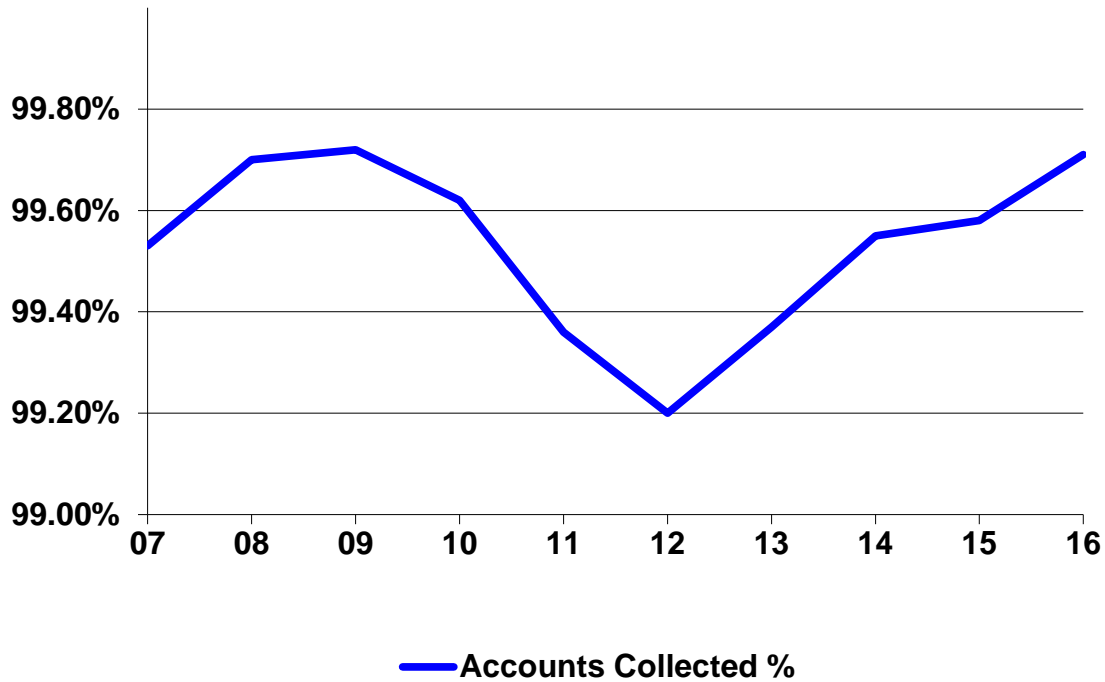
Number of Accounts (in thousands)										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Wastewater	176	176	176	176	176	176	175	175	176	176



## FY16 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 1% of total revenue.



Percentage of Billed Revenue Collected										
Fiscal Year	07	08	09	10	11	12	13	14	15	16
Net Loss %	0.47%	0.30%	0.28%	0.38%	0.64%	0.80%	0.63%	0.45%	0.42%	0.29%
Accounts Collected %	99.53%	99.70%	99.72%	99.62%	99.36%	99.20%	99.37%	99.55%	99.58%	99.71%

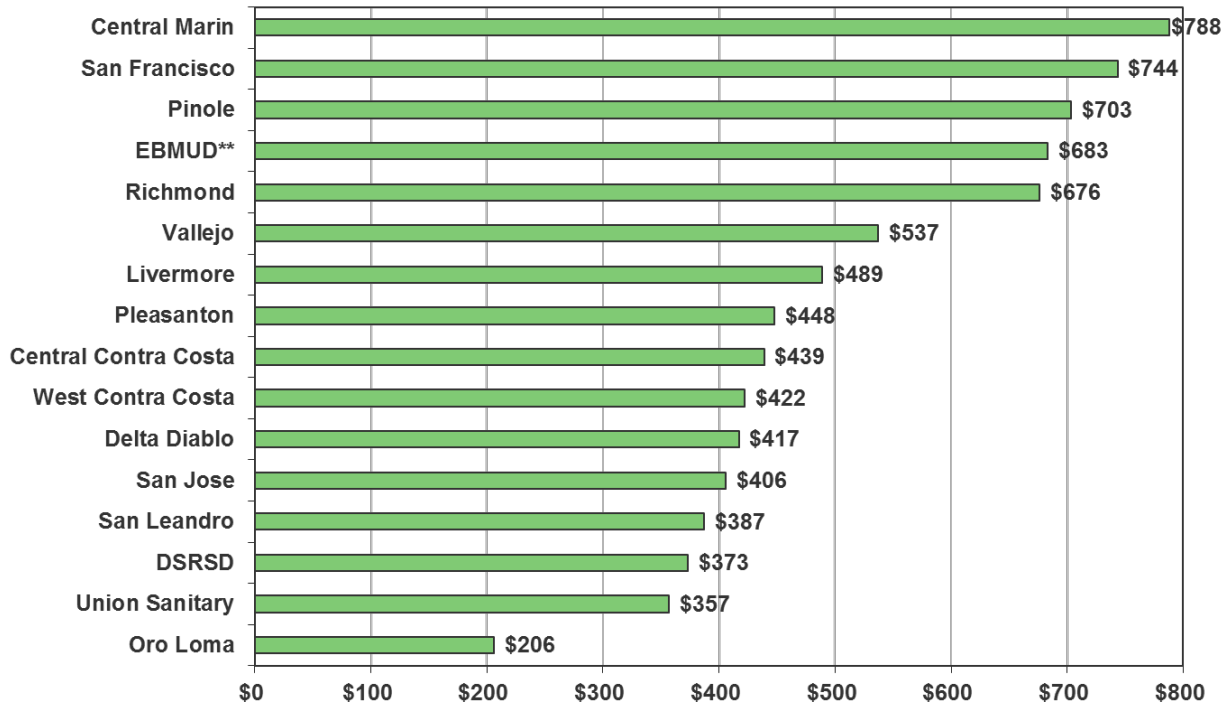




## FY16 OPERATING INDICATORS

### Wastewater - Comparative FY16 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 wastewater system did not meet the target to be “at or below the median” of other Bay Area agencies but moved one rank closer to the middle. \*\*The EBMUD share is \$318 and the average charge for the collection system assessed by other agencies is \$365.



Comparison of SFR Bills (6 Ccf per month)	
Agency	Agency Bills
Oro Loma	206
Union Sanitary	357
DSRSD	373
San Leandro	387
San Jose	406
Delta Diablo	417
West Contra Costa	422
Central Contra Costa	439
Pleasanton	448
Livermore	489
Vallejo	537
Richmond	676
<b>EBMUD</b>	<b>683</b>
Pinole	703
San Francisco	744
Central Marin	788

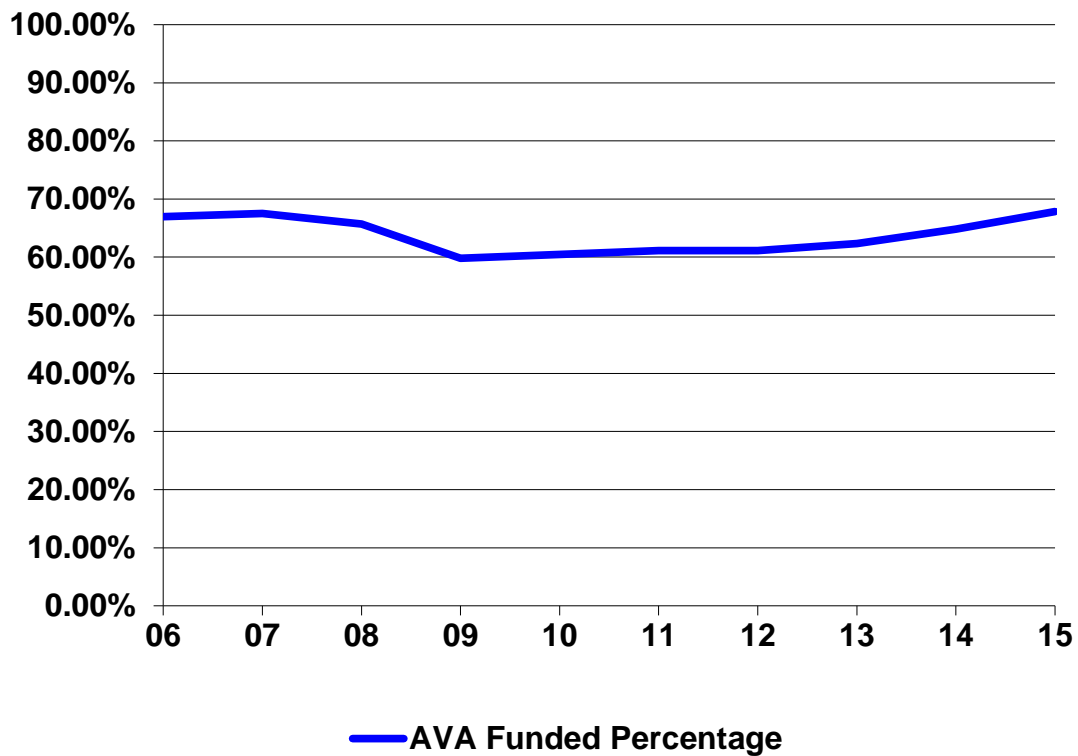


## FY16 RETIREMENT SYSTEM

### 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, 2015, the date of the last completed actuarial valuation report. As of that date, the funded percentage of combined pension and health benefits was 67.86%. The increase in the funded percentage is due to a strong return on the investment portfolio.

Under GASB 68, the plan fiduciary net position as a percentage of total pension liability slightly decreased from 75.45% in FY14 to 74.93% in FY15.



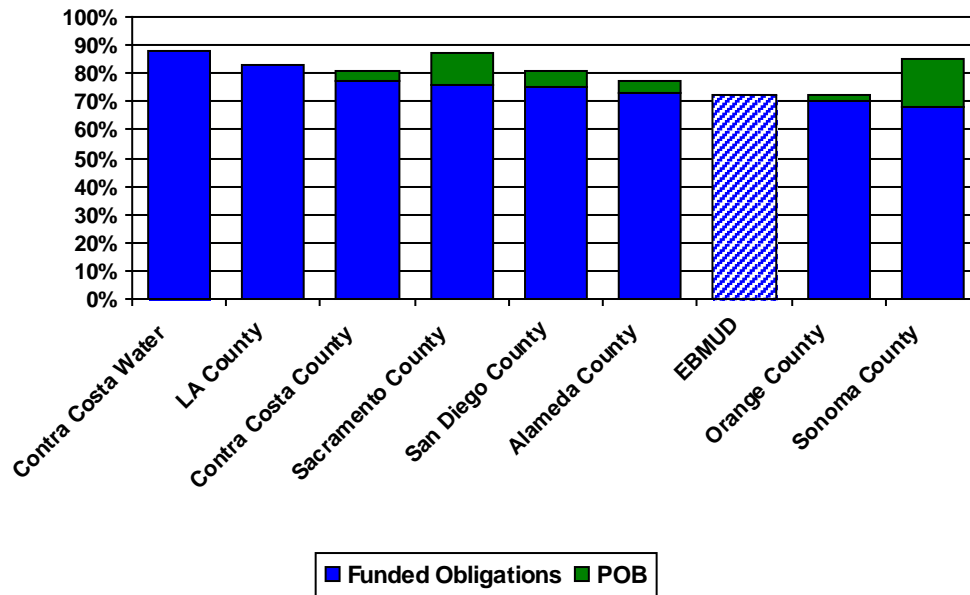
Funded Pension Benefit and Health Obligation Percentage										
Fiscal Year	06	07	08	09	10	11	12	13	14	15
HIB	5.05%	3.99%	5.11%	5.65%	7.43%	8.90%	10.30%	11.96%	13.98%	16.10%
Pension	71.23%	73.45%	72.36%	65.13%	65.60%	66.02%	65.62%	66.55%	68.90%	71.89%
Total Funded	66.98%	67.50%	65.69%	59.80%	60.46%	61.13%	61.11%	62.33%	64.83%	67.86%



## FY16 RETIREMENT SYSTEM

### Comparative FY15 Funded Pension Obligation for Selected Agencies

The comparative funded percentage of pension obligation reflects the most current actuarial valuation as of FY15. 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.



Agency	% of Funded w/o POB
Contra Costa Water	88%
LA County	83%
Contra Costa County	79%
Sacramento County	76%
San Diego County	75%
Alameda County	74%
<b>EBMUD</b>	<b>72%</b>
Orange County	70%
Sonoma County	68%



## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: September 22, 2016

MEMO TO: Board of Directors

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

SUBJECT: FY16 Key Performance Indicators Report

### INTRODUCTION

The FY16 Key Performance Indicator (KPI) targets were adopted by the Board as part of the District's July 2014 Strategic Plan. The KPIs measure progress in meeting the six Strategic Plan goals. Performance against the KPI targets is measured annually.

Attached is the FY16 Key Performance Indicators report which will be discussed at the Finance/Administration Committee meeting on September 27, 2016.

### STRATEGIC PLAN

The District's first Strategic Plan was adopted in May 2004. The Strategic Plan outlines the goals, strategies, objectives and KPIs that help execute our mission to provide high quality service and preserve our precious resources for future generations. The District has made significant progress in executing many elements of the plan over the years.

In June, the Board adopted the 2016 Strategic Plan which includes updated strategies, objectives and KPIs that will be the basis for the FY17 KPI report. The FY16 KPIs, however, are based on the prior plan that was adopted in 2014.

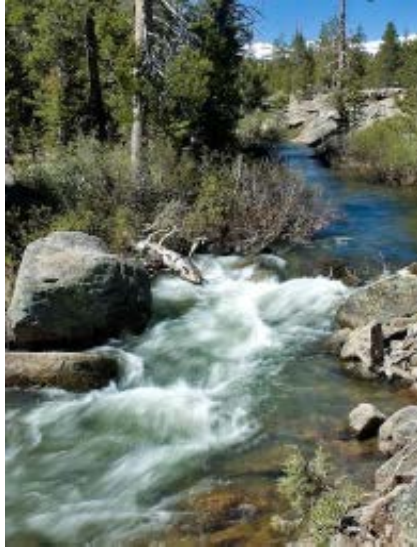
### KEY PERFORMANCE INDICATORS

For FY16, the District either met or was on track to meet the target for 87 percent of its KPIs where targets were set. This is similar to FY15 (87%), and FY14 (88%). In FY16, a total of 8 targets were not met or on track. These unmet targets were for pipeline breaks; wastewater odor complaints; wastewater rates; internal audits completed; asset maintenance activities recorded for analysis; interceptor assets repaired; unplanned water service interruptions (4 to 12 hours); and draft/update 2-3 event-specific emergency communication plans. More detail on these targets will be provided in the committee meeting.

ARC:SDS:dm

Attachment





# STRATEGIC PLAN KEY PERFORMANCE INDICATORS FOR FISCAL YEAR 2016



***EAST BAY MUNICIPAL UTILITY DISTRICT***

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## INTRODUCTION

These Key Performance Indicators (KPIs) reflect the various strategies contained within the July 2014 Strategic Plan goals, and include 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 of the KPIs may be changed as part of the update.

## STRATEGIC PLAN GOALS

The six 2014 Strategic Plan goals are:

**Long Term Water Supply** - Ensure a reliable high quality water supply for the future.

**Water Quality and Environmental Protection** - Meet or surpass environmental and public health standards and protect public trust values.

**Long Term Infrastructure Investment** - 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 environmental, social, and financial concerns.

**Long Term Financial Stability** - Manage the District's finances to meet funding needs and maintain reasonable water and wastewater rates.

**Customer Service** - Understand and be responsive to customer expectations for service.

**Workforce Planning and Development** - Create an environment that attracts, retains, and engages a high performing diverse workforce in support of the District's mission.

## KEY PERFORMANCE INDICATOR SUMMARY

The FY16 KPI results are summarized in the table below. The District met or was on target to meet 87% of its KPIs where targets were set and data was available.

Key	Result	# KPIs
++	Target met	45
+	Target not met, but on track	7
--	Target not met	8
n/a	Target/Data not available	1
■	Qualitative measure only	2
	<b>Total</b>	<b>63</b>

The District has tracked performance since the first Strategic Plan was developed in 2004. A summary of the performance of each current KPI from FY14 through FY16, along with its FY16 target is shown in the following table.

KEY PERFORMANCE INDICATOR – SUMMARY	FY16 TARGET	FY16	FY15	FY14
<b>Long Term Water Supply</b>				
<i>32MGD of Supplemental Dry Year Supply by 2040</i>	PCWA transfer	++	++	++
<i>Sufficient supplies to hold rationing to a maximum of 15% during next 3 yrs.</i>	Groundwater bank	+	++	++
<i>62 MGD Conservation Programs &amp; Natural Replacement Savings by 2040</i>	1.2 MGD Savings	++	++	++
<i>20 MGD of Recycled Water Capacity by 2040</i>	E. Bayshore pipe	++	+	+
<i>Continue East Bayshore Phase 1A Connections /Retrofits</i>	Pilot reuse fill stat.	+	++	n/a
<i>Coordinate with USACE for San Ramon Valley Phase 2A (Bishop Ranch)</i>	Bishop Ranch Ext.	++	++	n/a
<i>Update the Climate Change Monitoring and Response Plan</i>	CREAT 3.0	++	++	+
<b>Water Quality and Environmental Protection</b>				
<i>Mokelumne River Fall-Run Chinook Salmon Escapement (long term avg.)</i>	4,731	++	++	++
<i>% of Water Quality Goals Met</i>	100%	+	+	+
<i>% of Water Quality Regulations Met</i>	100%	++	++	++
<i>Number of NPDES / Waste Discharge Permit Notices of Violation Received</i>	0	+	+	+
<i>% Reduction in Average Odor Complaints Near the MWWTP</i>	10% reduction	--	+	n/a
<i>Reduce Indirect Emissions to Zero, Reduce Direct Emissions by 50%</i>	<38,857 tons CO2	++	++	n/a
<i>% of MWWTP Electric Power Demand Met On-Site</i>	100%	++	++	n/a
<i>Implement Private Sewer Lateral Program to Reduce Wet Weather Flows</i>	90% compliance	++	++	n/a
<i>% of JSA Mokelumne River Minimum Flow Releases Met</i>	100%	++	++	++
<b>Long Term Infrastructure Investment</b>				
<i>Number of Water System Pipeline Breaks per 100 Miles of Pipe</i>	≤ 20	--	--	--
<i>Availability of Wastewater Assets</i>	.90 - 1.0	++	++	++
<i>% of Water System Corrective Work Orders that are High Priority</i>	≤ 10%	++	++	n/a
<i>Critical Meter Repair Backlog</i>	< 5,000	++	+	n/a
<i>% of Water System Valves Exercised</i>	10%	++	--	n/a
<i>% of Asset Maintenance Activities Accurately Recorded for Analysis</i>	100%	--	+	n/a
<i>% of Meter Repair Orders Completed in 60 Days</i>	90%	++	--	n/a
<i>Miles of Distribution Pipe Replaced</i>	10	++	++	++
<i>Design Errors and Omission Change Orders on Construction Contracts</i>	< 3%	++	++	++
<i>Rehabilitate Steel Water Tanks</i>	3	++	++	++
<i>% of Interceptor Assets Repaired that have Major Defects</i>	15%	--	++	n/a
<i>Pumping Plants Rehabilitated</i>	3	++	++	n/a
<b>Long Term Financial Stability</b>				
<i>Water Rates at or Below the Median of other Bay Area Agencies</i>	≤ median	++	++	++
<i>Wastewater Rates at or Below the Median of other Bay Area Agencies</i>	≤ median	--	--	--
<i>Water % of Capital Program Funded from Debt</i>	≤65%	++	++	++
<i>Wastewater % of Capital Program Funded from Debt</i>	≤65%	++	++	+

KEY PERFORMANCE INDICATOR – SUMMARY	FY16 TARGET	FY16	FY15	FY14
<i>Water Debt Service Coverage</i>	≥ 1.6 times	++	++	++
<i>Wastewater Debt Service Coverage</i>	≥ 1.6 times	++	++	++
<i>Water Actual Reserves as % of Target</i>	≥ 100%	++	++	++
<i>Wastewater Actual Reserves as % of Target</i>	≥ 100%	++	++	++
<i>% of Planned Audits Completed</i>	100%	--	--	--
<i>% of Audit Findings Resolved within 90 Days</i>	100%	++	++	++
<i>Water Operating Expenditures as a Percentage of Operating Budget</i>	≤ 100%	++	++	++
<i>Wastewater Operating Expenditures as a Percentage of Operating Budget</i>	≤ 100%	++	++	++
<i>Water Capital Expenditures as a Percentage of Budgeted Cash Flow</i>	≤ 100%	++	--	+
<i>Wastewater Capital Expenditures as a Percentage of Budgeted Cash Flow</i>	≤ 100%	++	++	+
<b>Customer Service</b>				
<i>% of Customers Rating District’s Overall Job as “Good” or “Excellent”</i>	70%	n/a	n/a	--
<i>Average Speed of Answer to Calls coming into the Contact Center</i>	≤ 60 seconds	++	++	n/a
<i>% of Calls Answered within 60 Seconds or Less</i>	80%	++	+	n/a
<i>Call Abandonment Rate</i>	3%	++	++	n/a
<i>% of Customers Rating District’s Field Response as “Good” or Excellent”</i>	90%	++	++	++
<i>% of Time Customer Dependent Systems are Available</i>	99.9%	++	+	+
<i>Unplanned Water Service Interruptions per 1,000 Active Accounts</i>				
• <4 hours	≤ 10	++	++	++
• 4-12 hours	≤ 5	--	++	++
• >12 hours	≤ 2	++	++	++
<i>Electronic Bill Presentment and Payment Enhancements</i>	Implement testing by December 2015	+	--	n/a
<i>Update Emergency Operation Plan Every 2 Yrs, Conduct Exercise Annually</i>	100%	++	++	++
<i>Update Business Continuity Plans Every 2 Yrs, Conduct Exercises Annually</i>	100%	++	++	++
<i>Draft and/or Update 2-3 Event-Specific Emergency Communication Plans</i>	100%	--	++	n/a
<b>Workforce Planning and Development</b>				
<i>% of Exams Resulting in Hiring Lists within 60 Days</i>	75%	++	++	++
<i>% of District Eligibility Lists with AA Hire Opportunities</i>	n/a	■	■	■
<i>% of Leadership Program Graduates Who Place on Promotional Lists</i>	75%	++	+	--
<i>Annual Average Training Hours per Employee</i>	30	++	--	+
<i>% of Performance Plans Completed on Time</i>	100%	+	+	+
<i>% of Performance Appraisals Completed on Time</i>	100%	+	+	+
<i>Employee Injury &amp; Illness Lost Time Incidence Rate</i>	≤ 3.0	++	++	++
<i>Annually Implement Outreach Campaigns on Four Wellness Themes</i>	n/a	■	■	n/a
++ Target met    + Target not met, but on track    -- Target not met    n/a Target/Data not available    ■ Qualitative measure only				

## LONG TERM WATER SUPPLY

The District has a goal to ensure a reliable, high quality water supply for the future. Strategies to accomplish this goal include preserving current entitlements and augmenting the water supply; implementing water conservation and recycling programs to reduce potable water demand; and maintaining a climate change response plan. The following KPIs measure our progress in achieving our long term water supply goal.

[illegible]

Key Performance Indicator	FY16 Target	FY16 Performance	FY16 Target Met?
Water Recycling • <i>20 MGD of recycled water capacity by 2040</i>  • <i>Continue East Bayshore Phase 1A customer connections/retrofits</i>  • <i>Coordinate with USACE to award a contract for San Ramon Valley Phase 2A (Bishop Ranch)</i>	• Substantial completion of East Bayshore Emeryville / Christie pipeline  • Complete expansion study of alternatives at North Richmond, and RARE  • Implement a pilot residential reuse fill station  • Substantial completion of construction of Bishop Ranch pipeline extension	• Pipeline construction was substantially completed in FY16  • Expansion study was substantially completed in FY16  • Implementation of a pilot residential fill station deferred indefinitely  • Construction of Bishop Ranch pipeline extension substantially completed, awarded a \$2M state grant	++   +   ++
Climate Change • <i>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</i>	• Update the Climate Change Monitoring & Response Plan as needed to account for new information. Update climate assessments to the EPA’s Climate Resilience Evaluation and Assessment Tool (CREAT) 3.0 when available	• An update of the Plan has been completed • Staff worked with the EPA to develop the CREAT 3.0 assessment tool	++
++ Target met    + Target not met, but on track    -- Target not met    n/a Target/Data not available    ■ Qualitative measure only			

**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 I facilities, and completion of the Regional Desalination Pilot Project. In FY16, progress continued towards completing environmental reviews and obtaining approvals to implement a long term water transfer arrangement with Placer County Water Agency (PCWA), including negotiations with the U.S. Bureau of Reclamation on a long term Warren Act contract to use federal facilities to convey PCWA transfer water to EBMUD. In FY16, after receiving transfer water purchased in FY15, the District secured short-term water transfer option agreements in the event dry conditions continued. However, because hydrologic conditions improved, the District did not call the options.

Also, progress continued toward development of a groundwater banking demonstration project in partnership with San Joaquin County. FY16 work included developing property owner agreements, preliminary engineering plans, environmental documents and permits.

**Water Conservation:** In FY16, we continued implementing conservation measures identified within the six strategies of the 2011 Water Conservation Master Plan (WCMP). Drought support throughout the year resulted in an overall 24 percent reduction in water use. Higher than average customer participation levels continued due to ongoing drought response programs replacing over 2.8 million square feet of lawn. Overall water savings exceeded voluntary and mandatory drought reduction goals for the year through increased natural, behavioral-based measures and heightened participation in District conservation incentives, water use and leak detection surveys, and education programs. The FY16 baseline WCMP conservation programs included targeted savings and per capita water use reductions required to achieve compliance with the Water Conservation Act of 2009 (or 20 x 2020) and the California Urban Water Conservation Council Statewide Memorandum of Understanding for best management program reporting. The District's overall 2016 demand was less than 105 gallons per capita per day (gpcd), well below the 20 x 2020 interim target of 158 gpcd.

**Water Recycling:** The target for water recycling is to reduce the demand for potable water by a total of 20 MGD by the year 2040. Recycled water use of about 9 MGD has been achieved through a combination of irrigation and industrial reuse projects. Existing recycled water uses include refinery cooling towers and boiler feedwater; golf course irrigation in Alameda, Oakland, Richmond and San Ramon; parkway irrigation in Alameda; office building bathroom flushing in Oakland; office building cooling in Emeryville; and landscape irrigation in various areas of Oakland, Emeryville and San Ramon.

In FY16, progress was made on substantial completion of construction of the East Bayshore Emeryville/Christie pipeline which was approved for a \$1 million state grant. An expansion study of RARE and North Richmond is near completion. EBMUD began working on a new recycled water agreement with Chevron for the North Richmond Project. EBMUD was awarded a \$2 million State grant for the next phase of the San Ramon project in Bishop Ranch, and construction has been substantially completed. Customer site retrofit work is continuing in San Ramon to connect more users to the recycled water system. Planning and CEQA work began on EBMUD's proposed recycled water pump station in San Ramon. Also, EBMUD continued to coordinate with the Diablo Country Club and Central Contra Costa Sanitary District to develop a pilot satellite recycled water project. Implementation of a pilot residential fill station was considered in early 2016 but was not implemented as there was difficulty finding a suitable site and shortly thereafter the drought ended.

**Climate Change:** This KPI ensures the District's future water supply, water quality, and infrastructure planning incorporates adaptation to and mitigation of climate change. An update to the Climate Change Monitoring & Response Plan was completed in 2014 to account for new information. The latest update to the plan summarizes the District's work on climate change, information from the latest Intergovernmental Panel on Climate Change's Fifth Assessment Report, and information in the 2014 US National Climate Assessment Report. New or revised recommended actions include:

- Inventory the District's greenhouse gas emissions annually;
- Investigate new renewable energy projects consistent with Energy Policy 7.07; and
- Update the District's Energy Management Strategy.

Staff continues to work on these actions.

The District completed climate change assessments using the EPA's Climate Resilience Evaluation & Awareness Tool (CREAT) version 2.0. The EPA developed CREAT, a software tool, to assist drinking water and wastewater utility owners and operators in understanding potential climate change threats and in assessing the related risks at their individual utilities. CREAT provides users with access to the most recent national assessment of climate change impacts for use in considering how these changes will impact utility operations and missions. Staff worked with the EPA to develop and pilot CREAT version 3.0 which was issued by the EPA in August 2016. In FY17, staff will evaluate the new features and apply the tool as applicable to District facilities and operations.

## WATER QUALITY AND ENVIRONMENTAL PROTECTION

The District has a goal to meet or surpass environmental and public health standards. Strategies to accomplish this goal include managing watersheds to ensure a high quality water supply and protect natural resources; operating facilities to surpass drinking water regulations and meet all emission requirements; minimizing impacts to the environment; protecting San Francisco Bay; and operating Pardee and Camanche Reservoirs as an integrated system to supply drinking water, and regulate stream and flood control. The following KPIs measure our progress in achieving our water quality and environmental protection goal.

Key Performance Indicator	FY16 Target	FY16 Performance	FY16 Target Met?
Watershed Protection • <i>Mokelumne River fall-run Chinook salmon escapement (long term average)</i>	4,734	12,515	++
Compliance with Drinking Water Regulations • <i>% of water quality goals met</i> • <i>% of water quality regulations met</i>	100% 100%	94% 100%	+ ++
Compliance with Wastewater Regulations • <i>Number of NPDES and Waste Discharge Permit Notices of Violation (NOV) received</i> • <i>% reduction in average odor complaints near the MWWTP</i>	0 10% reduction	4 108% increase	+ --
Reduce, Recycle, Reuse, Reclaim • <i>Reduce indirect emissions to zero by 2040 and reduce direct emissions by 50% by 2040 compared to the 2000 baseline</i> • <i>% of Main Wastewater Treatment Plant electric power demand met by on-site generation with renewable resources</i>	<38,857 metric tons CO2  100%	37,289 metric tons  136%	++  ++
Protect SF Bay • <i>Implement Private Sewer Lateral Program to reduce wet weather flows and achieve a high compliance rate at point of sales</i>	90%	91%	++
Operate Pardee and Camanche • <i>Meet JSA Mokelumne River minimum flow releases 100% of the time</i>	100%	100%	++
++ Target met    + Target not met, but on track    -- Target not met    n/a Target/Data not available    ■ Qualitative measure only			

**Watershed Protection:** The FY16 target for the number of fish returning (escapement) to the Mokelumne River was based on the 1940 to 2014 long term average. The FY16 performance represents the average escapement from 2010 to 2015, which is a six-year (2 cohorts) running



average. The escapement for FY16 alone was 12,879 fish which is slightly more than FY15, and the 4<sup>th</sup> largest escapement recorded in the Mokelumne River since 1940. FY16 marks the 5<sup>th</sup> consecutive year of escapement exceeding 12,000 salmon.

Through the Lower Mokelumne River Partnership, the District initiated adaptive management actions including pulse attraction flow events in the fall of 2015, and innovative strategies to conserve cold water in Pardee and Camanche reservoirs. As a result of these actions, the total return to the Mokelumne was 272 percent of the long term average, which was greater than any San Joaquin River tributary. Moreover, the Mokelumne River Fish Hatchery produced roughly 5.5 million juvenile Chinook salmon. Future targets may be revised as resource agencies focus on in-river production versus production in hatcheries. Currently, most of the escapement on the Mokelumne is comprised of hatchery origin fish.

**Compliance with Drinking Water Regulations:** The District voluntarily sets over 100 annual water quality goals that far surpass federal and state standards. In FY16, the District again met 100 percent of state and federal regulations and 94 percent of the District's more stringent water quality goals, similar to FY15 (95 percent). The water quality parameters not met were: 1) Total coliform, 2) N-Nitrosodimethylamine (NDMA), 3) Taste and Odor complaints, 4) Chlorate, 5) Total Trihalomethanes (TTHMs), 6) Haloacetic Acids (HAAs), and 7) N-Nitrosodiethylamine (NDEA). Details concerning these issues are contained in the April 2016 Water Quality Program Semi-Annual Update, and the September 2016 update presented to the Planning Committee.

**Compliance with Wastewater Regulations:** The District's goal is to have no violations of the National Pollutant Discharge Elimination Permit (NPDES) and Waste Discharge Requirements permits. There were roughly 28 active permits during the reporting period. The number of permits fluctuates as permits are consolidated for facilities, new facilities are acquired and as construction projects start and finish.

At the Main Wastewater Treatment Plant, there were no NPDES violations in FY16, demonstrating 203 consecutive months of continued compliance. However, there was a chlorine residual violation exceedance at the Oakport Wet Weather Facility due to equipment failure.

Four other Notices of Violation (NOV) were received. In March 2016, the District received a NOV from the Central Valley Regional Water Quality Control Board (CVRWQCB) for a turbidity exceedance at the Camanche South Shore Water Treatment Plant (WTP). An investigation found that the exceedance was most likely due to a sample collection error caused by blocked access and low flows in the receiving water. Staff has conducted additional training to ensure sample contamination is avoided in the future. Also in March 2016, a NOV was received from the San Francisco Regional Water Quality Control Board (SFRWQCB) for the San Pablo WTP citing nine different exceedances, which spanned the entire five-year permit term. Staff worked with the SFRWQCB and the number of exceedances was corrected to three. These incidents dated back to 2012, 2014 and 2015, and in each case the incident was an exceedance of the chlorine residual limit. In July 2016, the District received a NOV from the CVRWQCB for a reporting deficiency in the annual report for the Camanche North Shore Wastewater Treatment Plant. Although the report format had been the same for years the NOV requested graphical representation for data, which staff will do in the future. The NOV also

requested that a new technical report be submitted to illustrate that there is no hydraulic connection between the wastewater ponds and the underlying groundwater in the area. Lastly, in August 2016, the District received a NOV from the SFRWQCB for the Summit Reservoir replacement construction site due to the release of stormwater containing concentrations of pentachlorophenol (PCP) that exceeded regulatory requirements. The PCP was introduced to the stormwater when it came into contact with a treated wood waste stockpile at the worksite during demolition. Corrective actions have been put in place by the District and the project contractor to ensure no future reoccurrence.

A new KPI for FY15 was to have continual improvement of at least 10 percent reduction in odor complaints attributable to the Wastewater Treatment Plant. The baseline was the FY12-14 average of 25 complaints. In FY16, 52 odor complaints were received, an increase from the 23 received in FY15. The increase is likely related to several factors, including drought-related low flows in the interceptor. The reduced flows result in longer conveyance times within the interceptor system as well as an increase in deposition of solids, both of which contribute to odor generation. Staff is identifying ways to optimize operational and maintenance practices to minimize the potential for creating odors, and proceeding with capital projects to enhance odor control management.

**Reduce, Recycle, Reuse, Reclaim:** District policy established a 2040 goal to be carbon-free for indirect emissions, and to reduce direct emissions by 50 percent compared to 2000 emissions. Given those goals, the District's indirect emissions were under the interim target and direct emissions slightly over, but overall emissions reductions are in line with the long term goals. Staff is researching carbon credits to offset direct emissions that are over the interim target. These results were discussed at the July 2016 Sustainability/Energy Committee meeting.

The primary goals for the indicator, "percent of MWWTP demand met by on-site generation" are to reduce electricity costs, increase energy-related revenues, and minimize greenhouse gas emissions associated with wastewater operations. Supported by both energy conservation efforts and the District's Resource Recovery program, the Main Wastewater Treatment Plant provided 136 percent of energy demand, exceeding the KPI of 100 percent for the third year in a row.

**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 District's Wet Weather Treatment facilities. Therefore, high compliance with the District's point-of-sale PSL Program will reduce 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 91 percent compliance, exceeding the target of 90 percent, and is similar to the 93 percent in FY15.

## LONG TERM INFRASTRUCTURE INVESTMENT

The District has a goal to maintain and improve its infrastructure in a cost effective manner to ensure high quality and reliable service. Strategies to accomplish this goal include maintaining master plans for all facilities; setting budget priorities to reflect identified needs; and implementing effective maintenance practices. The following KPIs measure our progress in achieving our infrastructure investment goal.

Key Performance Indicator	FY16 Target	FY16 Performance	FY16 Target Met?
Effective Management of Infrastructure			
• <i>Number of water system pipeline breaks per 100 miles of pipe</i>	≤ 20	28.7	--
• <i>Availability of wastewater assets</i>	.90 - 1.0	.98	++
• <i>% of water system corrective work orders that are high priority</i>	≤ 10%	4.6%	++
• <i>Critical meter repair backlog</i>	< 5,000	3,310	++
• <i>% of water system valves exercised</i>	10%	10.0%	++
• <i>% of asset maintenance activities accurately recorded for analysis</i>	100% of data collected for work tracked by AIM and Maximo	92%/93%	--
• <i>% of meter repair orders completed in 60 days</i>	90%	98%	++
Capital Budget Priorities			
• <i>Miles of distribution pipe replaced</i>	10	13.5	++
• <i>Design errors and omission change orders on construction contracts</i>	< 3%	2.6 %	++
• <i>Rehabilitate steel water tanks</i>	3	4	++
• <i>% of interceptor assets repaired that have major defects</i>	15%	5%	--
• <i>Pumping plants rehabilitated</i>	3	3	++
<b>++ Target met    + Target not met, but on track    -- Target not met    n/a Target/Data not available    ■ Qualitative measure only</b>			

**Effective Management:** Effective management of the infrastructure is measured by seven indicators. For the 4,140 miles of pipe in the system, we experienced a total of 1,189 breaks which yields 28.7 breaks/100 miles of pipe. This is an increase from the 1,043 pipe breaks in FY15 and the 979 breaks in FY14. We are conducting the Pipeline Rebuild Program to increase the miles of pipe replaced, which when implemented, should decrease the annual leak rate.

Availability of Wastewater assets tracks the availability of equipment and facilities. During FY16, the ratio was 0.98 which met the target and was the same as FY15.

Several infrastructure related indicators were instituted in FY15 including the percent of water system corrective work orders that are high priority. The Asset Infrastructure Management system that records maintenance work orders had 454 priority 5 work orders completed out of a total 9,925 corrective work orders, or 4.6 percent were high priority which met the target of less than 10 percent.

The meter repair backlog indicator met the target of >5,000 with a backlog of 3,310 orders. In FY16, 5,724 of the 57,299 valves were exercised, which met the target of 10 percent. This KPI covers only the system valves used to isolate leaks during main breaks and other maintenance activities.

Recording maintenance activities for analysis is critical for assessing asset condition and performance. This indicator tracks maintenance activity work hours. Water and Wastewater system performance was 92 percent and 93 percent respectively, which was less than the target of 100%, and less than the 95 percent in FY15. This KPI is not easily measurable due to limitations in identifying all staff time available to be spent on maintenance activities, and has been replaced as part of the 2016 Strategic Plan update.

In FY16, the target was met with 98 percent of meter repair orders completed within 60 days.

**Capital Budget Priorities:** Pipeline replacements again exceeded the target totaling 13.5 miles in FY16, greater than the 11.5 miles in FY15 and the 11.0 miles replaced in FY14. Design errors and omissions change orders on Water and Wastewater System contracts were 2.6 percent on contracts valued at \$63.6 million (Water System: 1.3 percent on contracts worth \$7.0 million; Wastewater: 2.8 percent on contracts worth \$56.6 million).

One steel reservoir was rehabilitated, San Pablo Washwater Tank No. 2, and a contract to demolish three steel reservoirs, Berkeley View No. 2, Muir, and Potrero, was awarded. Reservoir demolitions benefit the District by removing hazardous materials, reducing maintenance costs, and improving water quality by reducing storage in the distribution system.

The indicator, “% of interceptor assets repaired that have major defects” tracks progress relative to mitigating interceptor defect risks. In FY16, 5 percent of the known major defects were corrected, compared to 52 percent in FY15. While below the annual target of 15 percent, the two year average of 28 percent exceeds the metric. The result this year was lower than anticipated due to rejecting all bids for the 3<sup>rd</sup> Street Interceptor Rehabilitation Project, with the intent to repackage with new scope items for construction during the upcoming dry weather season in the spring of 2017.

Contracts to rehabilitate or demolish three pumping plants were awarded. Diablo and Gwin pumping plants will be rehabilitated, and Laguna No. 1 pumping plant will be demolished, which will remove hazardous materials and reduce maintenance costs.

## LONG TERM FINANCIAL STABILITY

The District has a goal to manage its finances to meet its funding needs and maintain reasonable rates. Strategies to accomplish this goal include developing a financial plan to meet long term funding needs; implementing equitable rates; ensuring integrity and accountability in financial management; and implementing new technologies that improve efficiency. The following KPIs measure our progress in achieving our financial stability goal.

Key Performance Indicator	FY16 Target	FY16 Performance	FY16 Target Met?
Sufficient Revenue / Fair Rates & Charges • <i>Rates as compared to other Bay Area agencies</i>	At or below median: Water At or below median: Wastewater	Water - below median, 12 other agencies surveyed Wastewater – above median, 15 other agencies surveyed	++ --
Financial Position • <i>% of capital program funded from debt</i> • <i>Debt service coverage</i> • <i>Actual reserves as % of target</i>	≤ 65% ≥ 1.6 times coverage ≥ 100%	45% Water 40% Wastewater 1.65 Water 1.98 Wastewater >100% Water >100% Wastewater	++ ++ ++ ++ ++ ++
Integrity, Accountability and Transparency • <i>% of planned audits completed</i> • <i>% of audit findings resolved within 90 days</i>	100% 100%	40% 100%	-- ++
Budget Performance • <i>Operating expenditures as a percentage of operating budget</i> • <i>Capital expenditures as a percentage of capital budgeted cash flow</i>	≤ 100% ≤ 100%	96% Water 94% Wastewater 97% Water 95% Wastewater	++ ++ ++ ++
++ Target met   + Target not met, but on track   -- Target not met   n/a Target/Data not available   ■ Qualitative measure only			

**Sufficient Revenue/Fair Rates & Charges:** An indicator of fair rates and charges is how we compare with other Bay Area water and wastewater agencies. Our annual water bill for an average residential user was below the median of surveyed agencies as 7 of the 12 agencies had higher bills. Our annual wastewater bill was above the median as 4 of the 15 agencies surveyed had higher bills. This represents an improvement of one position compared to last year. Our wastewater bill includes additional charges such as community collection charges that represent more than 50 percent of the overall bill.

**Financial Position:** The District has a policy target of funding no more than 65 percent of the capital program with debt. The percent of the Water System capital program funded by debt over the last 5 years was 45 percent which is less than last year's 5-year average of 59 percent. The percent of the Wastewater System capital program funded by debt was 40 percent which is less than last year's 5-year average of 48 percent. We expect to continue funding a large portion of the capital program with rate revenue.

The measure for reserves is the variance between the target and actual reserve levels at the end of the fiscal year. The target reserve levels of \$149.3 million for Water and \$36.3 million for Wastewater were slightly exceeded due to lower normal operating costs and higher than anticipated system capacity fees, offset by lower than projected metered consumption.

The District has a policy target of 1.6 times debt service coverage. The Water System FY16 debt coverage ratio was 1.65 which met the target and is similar to FY15 and FY14. The Wastewater System debt coverage ratio was 1.98 which met the target and is greater than the 1.75 in FY15 and the 1.60 in FY14.

**Integrity of Financial Systems:** The District's Internal Audit section provides assurance that assets are properly maintained and accurately accounted for; financial and operating reports are accurate; and relevant laws, regulations, ordinances and statutes are complied with. Audits of specific areas and/or functions are performed to assess the overall control environment and conduct tests to ensure sufficient internal controls are in place and are being complied with. Three of the reviews scheduled in the FY16 Internal Audit Plan were completed. The remaining audits scheduled in the FY16 plan were postponed due to ongoing efforts related to the water consumption audit and have been included in the FY17 plan. Reports on the status of internal audit efforts were provided as part of the Semi-Annual and Annual Internal Audit Reports presented to the Finance/Administration Committee in January and July 2016.

All findings and recommendations reported during the period and from prior periods have been resolved.

**Budget Performance:** This KPI measures the variance between spending and the approved budget, with a target for expenditures to not exceed 100 percent of the operating and capital budget, including debt service. The FY16 Water System operating expenditures were 96 percent of budget primarily due to lower debt service costs, unspent contingency, and a greater offset for the administration of capital work. In FY15 expenditures were 91 percent spent of budget. The FY16 Wastewater System operating expenditures were 94 percent of budget primarily due to unspent contingency, lower operation expenses, and a greater offset for the administration of capital work, the same as what was spent in FY15.

Capital budget spending was within target for both the Water and Wastewater Systems. Spending was less than budget for several Water System projects primarily due to delays in work related to reservoir rehabilitation, aqueducts and some pipeline work. Capital spending was less than budget for several Wastewater System projects primarily due to reduced spending on planned odor control improvements and food waste processing facilities.

## CUSTOMER SERVICE

The District's goal is to provide responsive, quality service to meet or exceed customer expectations. Strategies to accomplish this goal include obtaining feedback and customer input to understand expectations and inform business decisions; enhancing the customer experience using business process changes and technologies; and maintaining an emergency preparedness program to allow the District to function and recover from an emergency. The following KPIs measure our progress in achieving our customer service goal.

Key Performance Indicator	FY16 Target	FY16 Performance	FY16 Target Met?
Customer Satisfaction			
• % 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	18 seconds	++
• Contact Center service level: % of calls answered within the target of ≤ 60 seconds	80%	88%	++
• Abandonment rate	3%	2%	++
• % of customers rating the District's field response as "Good" or "Excellent"	90%	98%	++
• % of time customer dependent systems are available	99.9%	99.9%	++
• Unplanned water service interruptions per 1,000 active accounts			
< 4 hrs	≤ 10	8.4	++
4– 12 hrs	≤ 5	6.4	--
> 12 hrs	≤ 2	1.7	++
• Electronic bill presentment & payment enhancements	Implement testing by Dec 2015	Phase 1 completed in April 2016	+
Emergency Preparedness			
• Update the District's Emergency Operations 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% Plans 100% Exercises	100% 100%	++ ++
• Draft and/or update 2-3 event-specific emergency communication plans annually	100%	50%	--
++ Target met    + Target not met, but on track    -- Target not met    n/a Target/Data not available    ■ Qualitative measure only			

**Customer Satisfaction:** Several components measure customer satisfaction. The first is the percent of surveyed customers rating the "overall job EBMUD is doing" as "good" or "excellent" to measure how the District is meeting customer needs and expectations, and identify areas where we can improve. The FY16 survey was delayed due to drought constraints. The FY16 survey is now scheduled for fall 2016.

Another satisfaction measure involves our contact center where we receive over 310,000 calls and emails annually. FY16 was a drought year and the contact center received numerous inquiries concerning use, conservation programs, and rates and penalties. We achieved our goal of answering calls in less than 60 seconds with an average response time of 18 seconds versus 44 seconds in FY15; reduced the call abandonment rate to 2 percent from 3 percent; and met the service level target of answering 80 percent of calls within 60 seconds with 88 percent answered compared to 78 percent in FY15.

In FY16, a total of 132 field service survey responses were completed compared to 112 in FY15, and ratings continue high at 98 percent of customers rating service as “good or excellent” which is similar to the 97 percent in FY15.

The availability of automated systems used by customers (Internet, Call Center and Dispatch Center telephones, Customer Information System, and Integrated Voice Response self-service applications) is also a measure of customer satisfaction. Availability is determined by tracking the hours of unplanned down time. The FY16 target of 99.9 percent availability was met as unplanned outages of hardware and software in the computing infrastructure were minimal even as the District continues to update its technology.

Minimizing the impacts to customers from unplanned service interruptions is vital. The KPI for interruptions lasting 4-12 hours was not met as a result of the record number of main breaks that occurred in December 2015. That month, there were 179 main breaks which is the 2<sup>nd</sup> highest number of main breaks in a single month since 1997.

Phase one of the electronic bill presentment and payment project for one-time electronic payments was completed and reduced the customer fee. Phase two is scheduled to be completed by the end of the year. The percent of customers paying electronically continues to increase and provides customers with a convenient payment option.

**Emergency Preparedness:** These KPIs are a measure of the District’s ability to maintain an active emergency preparedness program by retaining current documentation and testing of emergency response and business continuity plans. In FY16, 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 FY15 and was therefore not revised in FY16. The District conducted or participated in 31 exercises, including those with other agencies and mutual assistance partners. The exercises included a major functional exercise of the Emergency Operations Team (EOT), a workshop for the EOT Public Communications Section, functional exercises of alternative work locations, and a functional exercise of the District’s emergency declaration process.

The KPI for updating BCPs every two years and conducting exercises for each BCP once a year was met. This is the fourth year in a row of meeting this KPI.



The District did not meet its KPI for drafting and/or updating 2-3 event-specific emergency communication plans annually due to temporary resource limitations associated with the drought and staffing changes. In FY16, one event-specific emergency communications plan was drafted that provides guidance to staff in handling public communications during an emergency involving a creek spill.

Details concerning the emergency preparedness and business continuity programs are contained in the Annual Readiness Report and Program Update presented to the Planning Committee in July 2016.

## WORKFORCE PLANNING AND DEVELOPMENT

The District has a goal to create an environment that attracts and retains a high performing and diverse workforce. Strategies to accomplish this goal include developing workforce plans to determine needs and identify any gaps that may exist; enhancing the ability to recruit highly qualified staff; developing employees to meet workforce demands; and fostering a culture that recognizes employee's contributions. The following KPIs measure our progress in achieving our workforce goal.

Key Performance Indicator	FY16 Target	FY16 Performance	FY16 Target Met?
Recruitment			
• <i>% of exams resulting in hiring lists within 60 days</i>	75%	91%	++
• <i>% of District eligibility lists with AA hire opportunities</i>	■	65%	■
Employee Development			
• <i>% of competing Leadership Program graduates who place on applicable promotional lists</i>	75%	78%	++
• <i>Annual average training hours per employee</i>	30	30	++
Performance Planning & Appraisal			
• <i>% of performance plans completed on time</i>	100%	98.7%	+
• <i>% of performance appraisals completed on time</i>	100%	99.0%	+
Employee Wellness			
• <i>Employee injury &amp; illness lost time incidence rate</i>	≤3.0	1.3	++
• <i>Annually implement outreach campaigns on four wellness ("Well Being") themes</i>	■	2	■
++ Target met    + Target not met, but on track    -- Target not met    n/a Target/Data not available    ■ Qualitative measure only			

**Recruitment:** The percent of exams resulting in hiring lists within 60 days is a measure of our hiring process, and is based on the time from the close of application filings to the establishment of eligible lists. In FY16, there were 110 exams completed and 100 resulted in hiring lists within 60 days. This is the third year in a row that the number of exams completed approached or exceeded 100, and the percent resulting in hiring lists exceeded 90 percent.

The District tracks the diversity of candidates considered for employment to determine if recruitment efforts are attracting sufficiently diverse qualified candidates. In FY16, the AA Opportunity Rate (the percentage of qualified underutilized candidates of the total qualified candidates considered during the hiring interviews) was 65 percent which is greater than the FY15 and FY14 rates of 60 and 61 percent respectively. This KPI does not measure the diversity of candidates actually hired. We report performance on this measurement, but do not set targets.

**Employee Development:** The percentage of competing Leadership Program graduates placed on applicable promotional lists measures the effectiveness of our various developmental academies (e.g., LEAD and Pathways). During FY16, 78 percent of the 71 academy applicants scored as eligible on promotional lists.

The annual average number of training hours per employee is a common indicator benchmarked by employers. For example, the American Society for Training and Development reports an average of 28 hours per year per employee among organizations surveyed, and an average of 38 hours per year per employee for Best Practice Organizations. The FY12 - FY16 five-year average was 27 hours annual training per employee, up from last year's average of 25 hours. However, the number of training hours per employee averaged 30 hours in FY16, reflecting increases in technical and general training hours.

**Performance Planning & Appraisal:** This KPI is measured by the percent of employees with performance plans and appraisals completed within the past 13 months. In FY16, 98.7 percent of employees had a current performance plan, which is the same as in FY15. In FY16, 99.0 percent of employees had a current performance appraisal, which is an improvement compared to the 98.5 percent in FY15.

**Employee Retention:** The Employee Injury and Illness Lost Time Incidence Rate is a measurement 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 FY16, the Lost Time Incidence Rate was 1.3 (there were 21 lost time injuries recorded) which was lower than the FY15 rate of 1.8, and the FY14 rate of 2.2.

During FY16, a wellness campaign was implemented regarding financial wellbeing. Also, a State of the District health presentation was given to a union study group which included a speaker from the SF Municipal Transportation Agency who discussed their wellness programs, and a brainstorming session related to wellness at the District. The wellness steering committee met several times to build momentum in our wellbeing program and further campaigns. The steering committee received a \$2,000 wellness grant from the Association of California Water Agencies Joint Powers Insurance Authority and will use the grant for costs related to a month long campaign on Wellness/Wellbeing to take place in January 2017, and to be repeated each year thereafter.



## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: September 22, 2016

MEMO TO: Board of Directors

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

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: FY17 Insurance Summary

### INTRODUCTION

The District's insurance policies have been renewed for the new fiscal year. Limits of coverage, deductibles and self-insured retention (SIR) levels are periodically adjusted to take advantage of the cyclical nature of the insurance markets. This insurance update is being provided to keep you apprised of activities in the insurance market and more specifically District programs. This information will be reviewed with the Finance/Administration Committee on September 27, 2016.

### SUMMARY

As in past years, this report is specific to the five (5) types of insurance policies carried by the District as illustrated in the attached chart. The cost of the property insurance policy represents 50% of total premium costs; general liability insurance represents 32% of total premium costs; and the cost of the three remaining lines of insurance represent 18% of total premium costs. The chart reflects a comparison of SIR/deductibles, limits, and premiums by category paid in FY16 and FY17. The overall cost of insurance in FY17 had a slight decrease over FY16, from \$1,506,638 to \$1,470,065. This is a \$36,573 or 2.4% total combined annual decrease for all lines of insurance currently carried by the District. This was due to the continued soft marketplace in the property and liability markets, as well as additional competition in the Boiler and Machinery market. The District's insurance program has always been focused on providing cost-effective and broad coverage for large catastrophic losses while covering smaller losses through self-insurance and high deductibles.

### DISCUSSION

Insurance markets seem to have stabilized in terms of coverage and pricing. We were able to negotiate favorable rates despite an increase in exposure (property values) resulting in a slight reduction in overall premiums.

#### All Risk Property (Including Flood)

The All Risk Property Insurance Program provides a limit of \$200 million per occurrence with a \$500,000 deductible. The premium decreased from \$760,474 in FY16 to \$730,381 in FY17. This represents a \$30,093 or 4% annual decrease over the previous policy year. This is due to the favorable

market conditions in the property line of coverage. No recent catastrophes have helped stabilize the property market.

The policy also includes a \$25 million annual aggregate sublimit for flood coverage with a separate \$10 million sublimit for floods in Special Flood Hazard Areas (as defined by FEMA as areas of 100 year flooding) with a minimum of \$1.5 million deductible per occurrence.

The District and its Broker were unable to find reasonably priced earthquake insurance but are continually looking for markets and options. The cost of earthquake coverage would more than double the price of the District's property insurance premium while providing very limited coverage. Consequently, earthquake insurance is not recommended at this time.

### **Excess Liability**

The Excess Liability Insurance Program provides a total limit of \$90 million per occurrence/aggregate with a \$10 million SIR for a total of \$100 million. There was a slight decrease in premium: \$469,380 in FY16 as compared to \$467,742 in FY17. This represents a \$1,638 or 0.35% decrease over the previous policy year.

### **Excess Workers' Compensation**

The Excess Workers' Compensation Program policy pays all benefits required by California law (statutory limits) in excess of the District's \$5 million SIR. There was an increase in premium from \$150,055 in FY16 to \$155,588 in FY17. This represents a \$5,533 or 3.69% increase over the previous policy year. The workers' compensation marketplace continues to be challenging in California as there have been no new carriers entering the marketplace to provide additional competition.

### **Boiler & Machinery (Equipment Breakdown)**

The Boiler & Machinery policy covers losses due to mechanical or electrical breakdown of covered equipment. The policy provides a limit of \$25 million per occurrence with a \$25,000 deductible. This year, the carrier agreed to reduce the \$50,000 deductible that was on the prior policies to \$25,000 for turbines at Pardee and Camanche Dams and at the Main Wastewater Treatment Plant. The FY17 annual premiums for the policy also saw a substantial decrease from \$103,271 in FY16 to \$92,896 in FY17. This represents a \$10,375 or 10% decrease over the expiring policy. The carrier has provided a three-year rate guarantee should the District choose to renew the policy.

### **Crime**

The Crime Insurance Policy provides a limit of \$10 million per occurrence with a \$25,000 deductible. The annual premium cost for FY17 is \$23,458 which remains flat. We are currently in the second of a three-year policy term.

**INSURANCE COMPARISON SUMMARY  
FY16 AND FY17**

Insurance Type	Self-Insured Retention (SIR)/Deductible		Insurance Limits (Above SIR/Deductible)		Premium	
	FY16	FY17	FY16	FY17	FY16	FY17
1. All Risk Property	\$500K	\$500K	\$200 Mil	\$200 Mil		
Flood	\$1.5 Mil	\$1.5 Mil	\$ 25 Mil EXCEPT \$10 Mil in Special Flood Hazard Areas	\$ 25 Mil EXCEPT \$10 Mil in Special Flood Hazard Areas	\$760,474	\$730,381
Earthquake	Excluded	Excluded	Excluded	Excluded		
2. Excess Liability	\$10 Mil	\$10 Mil	\$90 Mil	\$90 Mil	\$469,380	\$467,742
3. Excess Workers' Compensation	\$5 Mil	\$5 Mil	Statutory Limits	Statutory Limits	\$150,055	\$155,588
4. Boiler and Machinery	\$25K	\$25K	\$10 Mil	\$25 Mil	\$103,271	\$92,896
Higher Deductible for Turbines at Pardee and Camanche Dams and at the Main Wastewater Treatment Plant	\$50K  10 Days for Internal Combustion Engines including the associated Generator Sets  30 Days for Combustion Turbines and Hydro Turbines including the associated Generator Sets	N/A  7 Days for Internal Combustion Engines including the associated Generator Sets  25 Days for Combustion Turbines and Hydro Turbines including the associated Generator Sets				
5. Crime	\$ 25K	\$ 25K	\$10 Mil	\$10 Mil	<u>\$23,458</u>	<u>\$23,458</u>
<b>TOTAL ANNUAL PREMIUMS:</b>					<b>\$1,506,638</b>	<b>1,470,065</b>

SDS:KKC:VB





## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: September 22, 2016

MEMO TO: Board of Directors

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

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Proposed Fiscal Year 2017 Financing Plan

### SUMMARY

During Fiscal Year 2017, the District is proposing to undertake several debt-related transactions. The proposed transactions include extending or replacing the liquidity facility for Water Revenue Bonds Series 2008A-1 and A-4 (approximately \$56.7 million) and issuing “new money” revenue bonds to fund capital projects (estimated \$110 million for Water System, \$24 million for Wastewater). The District will also continue to monitor the market for opportunities to restructure debt for de-risking and refund debt for savings. This work supports the District’s Strategic Plan Goal of Long-Term Infrastructure Investment and Long-Term Financial Stability.

This report will be reviewed with the Finance/Administration Committee on September 27, 2016.

### DISCUSSION

The District’s financings generally fall into three basic categories:

- A. Administration of Existing Debt Portfolio — The District’s debt portfolio requires periodic renewal or replacement of existing liquidity facilities.
- B. New Money Issuance — The District finances its capital plan through a combination of cash and the issuance of debt. Periodically, the District enters the debt markets to raise funds for “new money” capital needs.
- 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 portfolio.

The table below summarizes the planned financing transactions for Fiscal Year 2017 in each of the three categories.

Description	Issue/Approximate Size	Date of Board Action	Pricing or Issuance Date
A. Extend or replace Wells Fargo Bank Standby Bond Purchase Agreement for Water Series 2008A-1 and A-4	Water 2008A-1: \$32.4 million Water 2008A-4: \$24.3 million	10/25/2016	12/1/2016
B. Issue additional "new money" Revenue Bonds.	Water: \$110 million Wastewater: \$24 million	4/25/2017	6/2017
C. Take advantage of opportunities to restructure Water and Wastewater Bonds for de-risking and refundings.	Based on market opportunities	TBD	TBD

*Note: Dates are approximate and subject to change.*

#### **A. Administration of Existing Debt Portfolio**

##### **Transaction:**

*Extend or replace Wells Fargo Bank Standby Bond Purchase Agreement for the District's outstanding Water Series 2008A-1 and 2008A-4 Bonds*

Water Revenue Bond Series 2008A-1 and A-4 (\$56.7 million) are variable rate demand bonds (VRDBs). VRDBs must be remarketed weekly, and require standby bond purchase agreements (SBPAs) to provide backup liquidity in case the bonds cannot be remarketed. The District has an SBPA for these series provided by Wells Fargo Bank which will expire December 9, 2016. The SBPA will need to either be extended or replaced. Staff plans to extend the SBPA with Wells Fargo as long as the bank is able to maintain the terms of the current agreement as this is the lowest cost alternative. Based on a comparison of fees paid by other issuers in similar recent transactions, the terms of our current agreement with Wells Fargo are quite favorable.

Staff expects to bring the documents related to this transaction for consideration at the October 25, 2016 Board meeting.

## **B. New Money Needs – Financing Capital Plan**

### **Transaction:**

*Issue additional “new money” water and wastewater revenue bonds*

The District has forecast approximately \$1.4 billion of total capital expenditures in the Water System from Fiscal Years 2016 through 2020. Bond funded new money needs for the Water System over Fiscal Years 2016 to 2020 are expected to be approximately \$660 million. For Fiscal Year 2017, approximately \$110 million of bonds are budgeted to be issued to meet that need. Based on the proposed financing plan staff expects to bring documents related to this transaction for consideration at the April 25, 2017 Board meeting. If approved, the transaction would close in June 2017.

The District has forecast approximately \$170 million of total capital expenditures in the Wastewater System from Fiscal Years 2016 through 2020. Bond funded new money needs for the Wastewater System over Fiscal Years 2016 to 2020 are expected to be approximately \$55 million. For Fiscal Year 2017, \$24 million of bonds are budgeted to be issued. Based on the proposed financing plan staff expects to bring documents related to this transaction for consideration at the April 25, 2017 Board meeting. If approved, the transaction would close in June 2017.

## **C. Market Opportunities - Achieving Debt Service Savings/De-risk Debt Portfolio**

In recent years the Board provided staff with the authorization for opportunistic de-risking and refunding of the bond portfolio. This resulted in an extremely successful program of reducing both cost and risk while simplifying the debt portfolio. Staff will continue to monitor the market and may identify additional opportunities for de-risking and/or refunding for savings. Potential fixed-rate advance refunding candidates are:

<b>Refunding Candidates</b>	<b>Water</b>	<b>Wastewater</b>
Bond Series	Series 2010A	Series 2010A
Par Value	Approx. \$172 million	Approx. \$31 million
Call Date	2020	2020
Final Maturity	2036	2029

Additionally, the District may consider entering into a “direct placement” to refund all or a portion of its outstanding VRDBs. A direct placement is similar to a direct loan with a single bank, and would allow for additional de-risking by linking the variable rate that the District pays on the debt to the variable rate received on the related swaps. Should any refunding or de-risking opportunities prove attractive, appropriate documentation will be brought to the Board for consideration.

## **SUSTAINABILITY**

### **Economic**

The proposed financings are consistent with the Fiscal Year 2017 budget.

### **Social**

The District's financings are conservatively structured to minimize costs to ratepayers and achieve intergenerational equity.

## **ALTERNATIVE**

**Do not approve the proposed financing plan for Fiscal Year 2017.** This alternative is not recommended. The planned transactions are designed to provide the optimal debt portfolio, minimizing cost and risk to the District and ratepayers.

ARC:SDS:DB

## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: September 22, 2016

MEMO TO: Board of Directors

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

FROM: Sophia D. Skoda, Director of Finance *SDS*

SUBJECT: Statewide Community Infrastructure Program

Staff will provide an update on the Statewide Community Infrastructure Program (SCIP) at the Finance/Administration Committee meeting on September 27, 2016. The presentation will include a summary of the SCIP structure and discuss the benefits and challenges of the program. In brief, the program allows developers to finance development fees with tax-exempt bonds involving the District in the financing structure. The bonds are repaid from annual assessments on the ultimate property owners.

The District participated in a SCIP financing about 10 years ago and has recently been approached about a new project. Given changes during the last decade in the municipal bond market, staff had extensive discussions with District bond counsel and tax counsel and determined that the District must follow strict requirements in order to ensure the SCIP financing does not affect District debt service coverage, financing flexibility, and tax compliance. In light of the challenges posed by continued participation and limited demand to date, staff recommends accepting the current application and reevaluating the terms of the District's future participation in the program.

ARC:SDS:DB

