

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

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

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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, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the Table of Contents.

### ***Management's Responsibility for the Financial Statements***

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

### ***Auditor's Responsibility***

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the District's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

### ***Opinions***

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

### ***Emphasis of Matters***

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

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

### ***Other Matters***

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, other required supplementary information as listed in the Table of Contents, and certain schedules related to the Pension and Post Employment Healthcare Plans be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### ***Other Information***

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

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

***Other Reporting Required by Government Auditing Standards***

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

*Maze + Associates*

Pleasant Hill, California  
August 27, 2018

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# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

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

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

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

Organization and Business

Overview of the Basic Financial Statements

Financial Analysis

Capital Assets

Debt Administration

Request for Information

### ORGANIZATION AND BUSINESS

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

### OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

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

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

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

## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2018

The District's proprietary fund statements include:

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

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

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

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

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

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

## **EAST BAY MUNICIPAL UTILITY DISTRICT**

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

June 30, 2018

#### **FINANCIAL ANALYSIS**

##### ***Financial Highlights***

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

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

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

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

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

Operating expense remained stable at \$430 million.

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

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

##### ***Financial Position***

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

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

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

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

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

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

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

## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2018

#### *Results of Operations*

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

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

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

## **EAST BAY MUNICIPAL UTILITY DISTRICT**

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

June 30, 2018

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

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

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

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

**Table 2**

Changes in Net Position

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

**Table 2 (Continued)**

Changes in Net Position

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

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



## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2018

#### *Liquidity*

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

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

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

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

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

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

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

## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2018

#### *Cash and Investments by Fund*

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

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

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

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

**Table 4**

Cash and Investment by Fund

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

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

Cash and Investment by Fund

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

### Capital Contributions

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

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

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

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

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

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

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

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

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

### CAPITAL ASSETS

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

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

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

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

**Table 6**

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

**Table 6 (Continued)**

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

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

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

This year's major capital expenditures included:

***Water System:***

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

***Wastewater System:***

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

# EAST BAY MUNICIPAL UTILITY DISTRICT

## Management's Discussion and Analysis

June 30, 2018

### DEBT ADMINISTRATION

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

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

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

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

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

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

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



## EAST BAY MUNICIPAL UTILITY DISTRICT

### Management's Discussion and Analysis

June 30, 2018

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

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

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

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

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

**Table 8**

#### Credit Ratings

#### Water and Wastewater

June 30, 2018

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

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

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

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

# **EAST BAY MUNICIPAL UTILITY DISTRICT**

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

June 30, 2018

### **REQUEST FOR INFORMATION**

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

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

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

(Continued)

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

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

See accompanying notes to financial statements

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

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

See accompanying notes to financial statements

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

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

(Continued)

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

	Water System		Wastewater System		Total
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2017
Reconciliation of net operating income to net cash provided by operating activities:					
Net operating income	\$141,359	\$81,689	\$27,391	\$23,979	\$168,750
Adjustments to reconcile net operating income to net cash provided by operating activities:					
Pension expense	(7,494)	6,221	(2,689)	(27)	(10,183)
OPEB expense	(945)	-	(208)	-	(1,153)
Depreciation on utility plant and vehicle	105,375	102,561	22,701	22,666	128,076
Depreciation within recreation areas	1,518	1,335	-	-	1,518
Amortization	14,000	16,276	2,197	1,769	16,197
Other income	11,452	12,682	5,968	4,166	17,420
Changes in assets/liabilities:					
Materials and supplies	(655)	(1,162)	-	-	(655)
Prepaid insurance	(215)	46	(248)	-	(463)
Customer receivables	(3,973)	3,782	(72)	(328)	(4,045)
Other assets	2,427	(1,300)	161	(736)	2,588
OPEB liability	-	1,560	-	268	-
Reserve for claims	3,720	785	(173)	(1,108)	3,547
Accounts payable and accrued expenses	20,248	(7,216)	302	(700)	20,550
Net cash provided by operating activities	\$286,817	\$217,259	\$55,330	\$49,949	\$342,147
Schedule of Non-Cash Activities					
Change in Fair Value	(\$3,363)	(\$1,546)	(\$396)	(\$186)	(\$3,759)
					\$267,208
					(\$1,732)

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

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

See accompanying notes to financial statements



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

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

See accompanying notes to financial statements

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

<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, 2017.

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

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

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

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

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

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

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

***D. Basis of Accounting***

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

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

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

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

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

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

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

<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  
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017  
(Dollars in Thousands)**

<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
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**Contract Water Rights**

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

**G. Depreciation**

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

**H. Restricted Assets**

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

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

*Operating Reserves:*

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

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

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

*Capital Reserves:*

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

Restricted funds include the following:

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

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

***I. Deferred Amount on Bond Refundings***

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

***J. Cash and Cash Equivalents***

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

***K. District Investments***

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

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

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



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<b>NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
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***L. Retirement System Investments***

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

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

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

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

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

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

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**NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

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

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

***M. Material and Supplies***

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

***N. Compensated Absences***

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

The changes in compensated absences were as follows:

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

***O. Revenue***

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

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

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

Wet weather facilities charges are designed to finance the operating and capital costs related to wet weather sewage flows and are billed annually on the property tax bill.

***P. Interest Rate Swap***

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

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

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

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

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

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

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

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

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

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

***S. Fair Value Measurements***

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

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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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, 2018, are as follows:

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

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

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

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

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

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

The District does not enter into reverse repurchase agreements.

**C. District Enterprise Fund Investments Authorized by Debt Agreements**

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

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

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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 on March 16, 2017.

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

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

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

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

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

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

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

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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.

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

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

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

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

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



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

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

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

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

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

**E. Fair Value Hierarchy**

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

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

***District Enterprise Funds:***

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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(Dollars in Thousands)**

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

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

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

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

**F. Interest Rate Risk**

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

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

***District Enterprise Funds:***

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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(Dollars in Thousands)**

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

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

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

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

**G. Credit Risk**

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***District Enterprise Funds:***

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

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

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

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



**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***H. Concentration Risk***

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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**NOTE 2 - CASH AND INVESTMENTS (Continued)**

***System Pension Trust Fund:***

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

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

***I. Foreign Currency Risk***

***System Pension Trust Fund:***

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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(Dollars in Thousands)**

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

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

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

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

**J. Custodial Credit Risk**

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

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

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

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

**K. Joint Powers Authority**

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
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<b>NOTE 3 – CAPITAL ASSETS</b>
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**A. Summary**

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

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

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

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

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

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

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

**B. Additions and Retirements**

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

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

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

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

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

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



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

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

***C. Construction in Progress***

Construction in Progress in fiscal 2017-2018 comprises:

	Expended to Date
<b><i>Water System:</i></b>	
Pipeline Infrastruct Renewals	\$56,876
WTTIP WTP Improvements	55,006
Reservoir Rehab/Maintenance	37,941
Summit Pressure Zone Improve	32,622
Open Cut Reservoir Rehab	31,781
Pumping Plant Rehabilitation	28,598
Large Diameter Pipelines	24,565
Addl Supplemental Supply Projs	15,857
Faria PZI (formerly Purdue)	14,737
Treatment Plant Upgrades	14,410
Reservoir Tower Modifications	13,595
Raw Water Studies and Improves	12,652
Water Conservation Project	9,249
Service Lateral Replacements	8,157
SRV Recycled Water Program	7,199
Water Capital Costs Misc.	6,658
Pipeline Relocations	6,235
West of Hills Master Plan	6,167
Trench Soils Storage Sites	5,203
Mok Aqu No 2 & 3 Relining Proj	4,235
Other Construction Projects	80,703
	<u>\$472,446</u>
<b><i>Wastewater System:</i></b>	
Treatment Plant Infrastructure	\$7,679
3rd St Sewer Interceptor Rehab	5,989
PS Q FM Dual-Mode Operation	4,863
Treatment Plant Infra Ph 2	4,073
Digester Upgrade	3,804
Infiltration/Inflow Contrl Prj	2,873
Routine Cap Equip Replacement	2,538
Resource Recovery Project	2,092
MWWTP Master Planning	1,968
Concrete Rehab at SD1	1,638
MWWTP Pwr Dist Sys Upgrade	1,146
Interceptor Corrosion Prevent	923
Outfall Investigation Project	728
PGS Engine Overhaul	581
So Interceptor Reloc High St	540
Other Construction Projects	2,511
	<u>\$43,946</u>
Total District Construction in Progress	<u><u>\$516,392</u></u>

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

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

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

Construction in Progress in fiscal 2016-2017 comprises:

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

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

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

**NOTE 4 – ACCOUNTS PAYABLE & ACCRUED EXPENSES**

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

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

**NOTE 5 – EXTENDABLE COMMERCIAL PAPER NOTES**

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

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

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

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

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

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

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

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

**NOTE 6 – LONG-TERM DEBT**

***A. Composition and Changes***

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

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

	Original Issue Amount	Balance June 30, 2017	Additions	Retirements	Balance June 30, 2018	Amount due within one year
<b><i>Water System Revenue Bonds:</i></b>						
<b>Subordinated Series 2008 A</b>						
1.31 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	7,020		\$2,540	4,480	\$2,390
<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	81,750			81,750	
<b>Series 2012 B</b>						
1.00-5.00%, due 6/1/26	358,620	249,450		34,600	214,850	36,110
<b>Series 2013 A</b>						
5.00%, due 6/1/21	48,670	28,065		6,465	21,600	6,820
<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	233,450		8,040	225,410	8,425
<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 2015 C</b>						
4.00-5.00%, due 6/1/45	110,715	110,715			110,715	
<b>Series 2017 A</b>						
3.00-5.00%, due 6/1/45	185,355	185,355			185,355	
<b>Series 2017 B</b>						
3.00-5.00%, due 6/1/37	309,665	309,665		6,190	303,475	6,345
Total water long-term bonds		2,417,730		57,835	2,359,895	60,090

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

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

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

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

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

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

	Original Issue Amount	Balance June 30, 2016	Additions	Retirements	Balance June 30, 2017	Amount due within one year
<b><i>Water System Revenue Bonds:</i></b>						
<b>Subordinated Series 2007 B</b>						
3.75 - 5.00%, due 6/1/19	\$54,790	\$19,155		\$19,155		
<b>Subordinated Series 2008 A</b>						
.87% 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	183,400		176,380	7,020	\$2,540
<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		110,000	81,750	
<b>Series 2012 B</b>						
1.00 -5.00%, due 6/1/26	358,620	278,810		29,360	249,450	34,600
<b>Series 2013 A</b>						
5.00%, due 6/1/21	48,670	34,200		6,135	28,065	6,465
<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	241,220		7,770	233,450	8,040
<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	
<b>Series 2017 A</b>						
3.00 - 5.00%, due 6/1/45	185,355		\$185,355		185,355	
<b>Series 2017 B</b>						
3.00 - 5.00%, due 6/1/37	309,665		309,665		309,665	6,190
Total water long-term bonds		2,271,510	495,020	348,800	2,417,730	57,835

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

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

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



**EAST BAY MUNICIPAL UTILITY DISTRICT  
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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.

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

***C. Debt Service Requirements***

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

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

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

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

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

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

***D. Prior-Year Defeasances***

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

***E. Variable Rate Debt***

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

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

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

**F. Interest Rate Swap Agreements**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**NOTE 7 – NET POSITION**

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN</b>
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***A. Description***

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

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

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

***B. Retirement Benefits and Allowances***

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
NOTES TO BASIC FINANCIAL STATEMENTS  
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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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***C. Post-employment Healthcare Cost***

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

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

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

***D. Actuarial Assumptions and Funding Policy***

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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<b>NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)</b>
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District contributions for the year ended June 30, 2018 are as follows:

1980 Plan:

Pension plan:

Employer service cost	15.57%
Toward unfunded pension liability	22.35%

Other post-employment benefits:

Employer normal cost	1.16%
Unfunded actuarial accrued liability	4.10%

2013 Plan:

Pension plan:

Employer service cost	8.95%
Toward unfunded pension liability	22.35%

Other post-employment benefits:

Employer normal cost	0.76%
Unfunded actuarial accrued liability	4.10%

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

1980 Plan:

Pension plan:

Employer service cost	15.56%
Toward unfunded pension liability	21.10%

Other post-employment benefits:

Employer normal cost	1.14%
Unfunded actuarial accrued liability	4.18%

2013 Plan:

Pension plan:

Employer service cost	8.81%
Toward unfunded pension liability	21.10%

Other post-employment benefits:

Employer normal cost	0.74%
Unfunded actuarial accrued liability	4.18%

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



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

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

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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

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

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

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

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

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

***F. Schedule of Employer Contributions***

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

Schedule of Employer’s Contributions:

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

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

**G. Net Pension Liability**

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

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

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

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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

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

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

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT**  
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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%	5.78%
Domestic Small Cap Equity	4%	6.45%
Developed International Equity	12%	7.03%
Emerging Markets Equity	3%	9.46%
Domestic Bonds	10%	0.99%
Non-Core Fixed Income	10%	3.46%
Real Estate	5%	4.50%
Covered Calls	20%	5.00%
Total	100%	

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

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

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

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

***H. Net OPEB Liability***

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

\*\* The total employer contributions for estimated implicit subsidy

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

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

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

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

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

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

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

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)**

***I. Public Employees’ Pension Reform Act (PEPRA)***

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

The table below provides the details of the new provisions.

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

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

**NOTE 9 – RISK MANAGEMENT**

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

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

Selected other coverages are:

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 9 – RISK MANAGEMENT (Continued)**

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

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

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

**NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES**

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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<b>NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)</b>
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- In summer 2016, the Central Valley Regional Water Quality Control Board (CVRWQCB) requested that the District produce a technical report to reexamine the groundwater network at the Camanche North Shore (CANS) and Camanche South Shore (CASS) Wastewater Treatment Plants including the effectiveness of existing monitoring wells and hydraulic connections between the wastewater ponds and the aquifers. The technical report was provided in March 2017. The CVRWQCB stated in its winter 2018 response that it agreed with the CANS recommendations in the technical report and subsequently required the District to submit a work plan for new well installations and to conduct additional monitoring. In May 2018, the District submitted its response to the CVRWQCB, including the work plan for the new CANS wells. The CVRWQCB requested additional analysis for the CASS facility which is ongoing. It is possible that future analysis and communication with the CVRWQCB could mandate the District to construct wastewater treatment pond upgrades. At this preliminary planning stage, it is estimated that the cost would be approximately \$6.6M to upgrade the existing facilities or, alternatively, approximately \$7.8M to construct a joint wastewater project with Amador County.
- The Alameda County Environmental Health Agency (County) requested that the District conduct site investigations at the Adeline Maintenance Center (AMC) Shops to define the extent of petroleum hydrocarbons in soil and groundwater associated with former USTs. The District completed site investigations in accordance with an approved work plan in 2009. The results indicated that elevated concentrations of petroleum hydrocarbons remain in onsite soil and groundwater in localized areas near the former USTs. In June 2016 the County then requested that the District conduct a Sensitive Receptor Survey for the AMC Shops parcel as well as a Site Conceptual Model for the Anderson Building (located within the AMC complex parcel) and that all environmental data collected during previous investigations be posted to the State's GeoTracker website in electronic format, followed by a meeting with the County to agree upon final actions necessary to obtain regulatory closure of the site under the State Water Resource Control Board's Low Threat Closure Policy. The District has submitted the requested Sensitive Receptor Survey, Site Conceptual Model and a Site Investigation Work Plan for the Anderson Building for the AMC Shops parcel. The County met with the District in July 2018 to discuss next steps towards site closure. The County concurred with the work plans with conditions and additional sampling will be performed as requested. A final report on the work that is completed will be submitted to the County by October 11, 2018.
- On April 8, 2015, approximately 170 cubic yards of cellular concrete being used at a District construction site was accidentally released into a storm drain in Oakland, CA. The incident occurred when cellular concrete was being added to a 1,500 foot segment of an abandoned 24-inch water main line. The cellular concrete flowed through enclosed storm drain pipes and open creek channels following the release. District staff immediately initiated emergency response and an incident command structure to commence cleanup of the creek; the cleanup took approximately 4 weeks. The cleanup phase then transitioned into a long term restoration phase which is nearing completion. Enforcement negotiation is complete; the finale penalty amount was \$426. The District has been monitoring the creek annually since the spill occurred and the last round of sampling for water quality, streambed elevation, and biota was completed in May and June of 2018. In July 2018 the District requested closure on the remaining permits related to this spill since the creek has rebounded to its pre-incident condition.

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

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

**NOTE 11 - CONTINGENT LIABILITIES**

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

**NOTE 12 – COMMITMENTS AND CONTINGENCIES**

***Central Valley Project***

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



## **REQUIRED SUPPLEMENTAL INFORMATION**

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

**(1) Pension Plan**

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

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

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

Unaudited

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

**(2) Pension Plan**

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

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

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

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

**(3) Pension Plan**

Schedule of Employer's Contributions (in thousands):

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

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

Unaudited

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

**(4) Pension Plan**

Schedule of Investment Returns:

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

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

**(5) Post-Employment Healthcare Plan**

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

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

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

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

Unaudited

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

**(6) Post-Employment Healthcare Plan**

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

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

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

**(7) Post-Employment Healthcare Plan**

Schedule of Employer's Contributions (in thousands):

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

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

Unaudited

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

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

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

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

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

Unaudited.

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

**(8) Notes to Required Supplementary Information (Continued)**

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

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

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

Unaudited.



## **SUPPLEMENTAL INFORMATION**

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

June 30, 2018

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

(DOLLARS IN THOUSANDS)

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

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

For the Year Ended June 30, 2018

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

(DOLLARS IN THOUSANDS)

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

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

Board of Directors  
East Bay Municipal Utility District  
Oakland, California

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

***Internal Control Over Financial Reporting***

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

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

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

### ***Compliance and Other Matters***

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

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

### ***Purpose of this Report***

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

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

Pleasant Hill, California  
August 27, 2018