

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**

**(A Component Unit of the  
East Bay Municipal Utility District)**

**Financial Statements and Supplementary Information**

**For The Year Ended June 30, 2018**

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**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**

(A Component Unit of the East Bay Municipal Utility District)

For The Year Ended June 30, 2018

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## INDEPENDENT AUDITORS' REPORT

The Board of Directors  
East Bay Municipal Utility District  
Employees' Retirement System  
Oakland, California

### ***Report on Financial Statements***

We have audited the accompanying financial statements of the East Bay Municipal Utility District Employees' Retirement System (the System), a component unit of the East Bay Municipal Utility District (District), as of and for the year ended June 30, 2018, and the related notes to the financial statements, as listed in the Table of Contents.

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

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

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

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit 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 audit to obtain reasonable assurance about whether the financial statements are free of 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 System'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 System'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 plan net position of the East Bay Municipal Utility District Employees' Retirement System as of June 30, 2018, and changes in plan net position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

### ***Other Matters***

#### **Required Supplementary Information**

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis 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 generally accepted auditing standards in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Other 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 System'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 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 System's internal control over financial reporting and compliance.

### ***Report on Summarized Comparative Information***

We have previously audited East Bay Municipal Utility District Employees' Retirement System's 2018 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated August 27, 2018. In our opinion, the summarized comparative information as and for the year ended June 30, 2018 is consistent, in all material respects, with the audited financial statements from which it has been derived.



Pleasant Hill, California  
August 27, 2018

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

This section presents management's analysis of the East Bay Municipal Utility District Employees' Retirement System's (the System) 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 System's basic financial statements. The MDA represents management's examination and analysis of the System's financial condition and performance.

This information should be read in conjunction with the audited financial statements that follow this section. The information in the MDA is presented under the following headings:

- Organization and Business
- Overview of the Financial Statements
- Financial Analysis: *Financial Highlights*
- Financial Analysis: *Financial Condition*
- Factors Impacting Future Periods
- Request for Information

**Organization and Business**

The East Bay Municipal Utility District (the District) is the sponsoring agency of the System and provides for its funding. The System is accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and deferred outflow, all liabilities and deferred inflow associated with operations are included on the statement of plan net position, and revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

The System administers a single-employer, contributory, defined benefit pension plan (the Plan) which provides retirement, disability, survivorship, and postemployment 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, 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 Number 40 assigns the authority to establish Plan benefit provisions to the District's board of directors.

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

For additional information, please see the notes to the basic financial statements.

**Overview of the Financial Statements**

The basic financial statements include a *statement of plan net position*, a *statement of changes in plan net position*, and *notes to basic financial statements*. The report also contains other required supplementary information in addition to the financial statements.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
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Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

The system's financial statements include:

The *Statement of Plan Net Position and the Statement of Changes in Plan Net Position* report information to assist readers in determining whether the System's finances as a whole are better off or worse off as a result of the year's activities. These two statements report the net assets of the System and changes in them, respectively.

The *Statement of Plan Net Position* presents information on all assets and liabilities of the System, 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 System is improving or deteriorating.

The *Statement of Changes in Plan Net Position* presents the results of the System's activities over the course of the fiscal year and information as to how the *net position* changed during the year. This statement measures the results of the System's investment performance as well as the System's income from contributions and expenses, including the payment of benefits, refunds of contributions, and administrative and investment expense. All changes in net position are reported during the period 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.

The *Notes to the Basic Financial Statements* provide additional information that is essential to a full understanding of the data provided in the basic financial statements. Effective fiscal year 2017, GASB 74 – *Financial Reporting for Postemployment Benefit Plans other than Pension Plans*, requires the System to disclose additional information regarding post-employment health insurance benefits (the OPEB Plan). These disclosures can be found in Note 7.

**Financial Analysis: Financial Highlights**

- The total assets of the System exceeded the total liabilities by \$1,753,240 as of June 30, 2018 (Table 1). All of the net assets are available to meet the System's ongoing obligations to Plan participants and their beneficiaries.
- Net position increased by \$140,596 or 8.72% during the fiscal year ended June 30, 2018 compared to the increase of \$194,515 or 13.72% of the prior year. This is primarily due to the decline in net investment income of \$51,334 or 25.45%. Contributions from the District of \$81,096 and employee contributions of \$17,079 were offset in part by the cost of pension, health insurance benefits, refunds of contributions, and administrative expenses of \$107,928.
- As of June 30, 2018, 25.40% of the System's investments were in fixed income securities, 24.80% were in domestic equities, 24.40% were in international equities, 20.00% were in covered calls, 5.10% was in Real Estate, and 0.30% were in cash and cash equivalents. As of June 30, 2017, 16.90% of the System's investments were in fixed income securities, 43.50% were in domestic equities, 13.30% were in international equities, 20.90% were in covered calls, 5.20% was in Real Estate, and 0.20% were in cash and cash equivalents.
- The Plan's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2017, the date of the last actuarial valuation, the Pension Plan's funded ratio was 74.90% and the Post-employment Health Care plan funded ratio was 26.70%.
- During the fiscal year ended June 30, 2018, combined District and employee contributions increased by \$5,297 or 5.70% to \$98,175 (Table 2). For the 1980 Plan, the District's average contribution slightly



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Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

decreased to 43.18% and the employees' contribution rate remained unchanged at 8.75% for fiscal year 2018. For the 2013 Plan, the District's average contribution rate increased to 36.16% and the employees' contribution rate remained unchanged at 8.84% for fiscal year 2018.

- Retirement, Disability, and Survivor Benefit payments increased by \$7,429 or 8.23% to \$97,669 (Table 3). Along with the 3.0% cost-of-living increase in July 2017, there was an additional 4.98% increase from July 1, 2017 to June 30, 2018, in monthly benefits paid due to net increases in the number of retirees and beneficiaries.
- Health Insurance Benefits increased by \$403, or 5.09%, to \$8,315 (Table 3), primarily due to the increase in the number of retirees receiving health benefits.
- Refunds of Contributions to terminated or deceased employees decreased by \$72, or 15.48%, to \$393.
- Administrative expenses (not including Investment Advisors' Fees or Custodial Asset Management Fees) increased by \$122, or 8.54%, to \$1,551, primarily due to increased actuarial audit and consulting services of \$157 offset by decreased administrative services fee allocated to labor of \$37.
- Investment Advisors' Fees decreased by \$570, or 12.37%, to \$4,037 primarily due to asset reallocation in mid-June and the payments of the fees of five newly added investments associated with the asset reallocation are made after fiscal year 2018.

**Financial Analysis: Financial Condition**

The System's financial condition reflects an increase of \$76,281 in the Projected Benefit Obligation (PBO) as of the June 30, 2017, versus the previous actuarial report of June 30, 2016. Because of the increased contributions and strong market performance, the market value of assets as of June 30, 2017, increased \$194,515 during the same period based on the actuarial reports. The PBO funded percentage at the end of the previous fiscal year is used to determine the cost-of-living adjustment (COLA) at the end of the current fiscal period. The Funded PBO percentage was 75.40% as of June 30, 2017, versus 68.80% as of June 30, 2016. Whenever the PBO funded percentage is less than 85.00%, the COLA for pension beneficiaries is limited to 3.00%.

The overall Actuarial Accrued Liability funding ratio for the System increased from 68.80% to 72.30% as of the June 30, 2017 actuarial report versus the previous actuarial report of June 30, 2016. The component Plans of Pension and Health Insurance Benefit changed from 71.40% to 74.90% and 23.30% to 26.70% funded, respectively.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

During the year ended June 30, 2018, the System's net position increased by \$140,596 compared to an increase of \$194,515 in 2017.

**(Table 1)**

**Net Position**

Years ended June 30, 2018 and 2017

	<b>2018</b>	<b>2017</b>	<b>Variance</b>	<b>%</b>
Other assets	\$95,581	\$166,417	(\$70,836)	(42.57)%
Investments at fair value	1,718,398	1,563,978	154,420	9.87%
Total assets	1,813,979	1,730,395	83,584	4.83%
Total liabilities	60,739	117,751	(57,012)	(48.42)%
Net position	<u>\$1,753,240</u>	<u>\$1,612,644</u>	<u>\$140,596</u>	<u>8.72%</u>

**(Table 1)**

**Net Position**

Years ended June 30, 2017 and 2016

	<b>2017</b>	<b>2016</b>	<b>Variance</b>	<b>%</b>
Other assets	\$166,417	\$168,656	(\$2,239)	(1.33)%
Investments at fair value	1,563,978	1,377,665	186,313	13.52%
Total assets	1,730,395	1,546,321	184,074	11.90%
Total liabilities	117,751	128,192	(10,441)	(8.14)%
Net position	<u>\$1,612,644</u>	<u>\$1,418,129</u>	<u>\$194,515</u>	<u>13.72%</u>

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(Dollars in thousands)

June 30, 2018

The financial reserves needed to fund retirement and health benefits are accumulated through the collection of employer and employee contributions and through earnings on investment income. As Table 2 shows, the System experienced net investment gain for 2018.

**(Table 2)**

**Additions to Net Position**

Years ended June 30, 2018 and 2017

	<b>2018</b>	<b>2017</b>	<b>Variance</b>	<b>%</b>
Employer contributions	\$81,096	\$76,860	\$4,236	5.51%
Members' contributions	17,079	16,018	1,061	6.62%
Total contributions	<u>\$98,175</u>	<u>\$92,878</u>	<u>\$5,297</u>	<u>5.70%</u>
Net investment gain/(loss)*	<u>\$150,349</u>	<u>\$201,683</u>	<u>(\$51,334)</u>	<u>(25.45)%</u>
Total additions, net	<u>\$248,524</u>	<u>\$294,561</u>	<u>(\$46,037)</u>	<u>(15.63)%</u>

\* Net of investment expenses and borrower's rebates and other agent fees on securities lending transactions of \$5,504 for June 30, 2018, and \$5,394 for June 30, 2017.

**(Table 2)**

**Additions to Net Position**

Years ended June 30, 2017 and 2016

	<b>2017</b>	<b>2016</b>	<b>Variance</b>	<b>%</b>
Employer contributions	\$76,860	\$74,672	\$2,188	2.93%
Members' contributions	16,018	14,925	1,093	7.32%
Total contributions	<u>\$92,878</u>	<u>\$89,597</u>	<u>\$3,281</u>	<u>3.66%</u>
Net investment gain/(loss)*	<u>\$201,683</u>	<u>\$14,205</u>	<u>\$187,478</u>	<u>1,319.80%</u>
Total additions, net	<u>\$294,561</u>	<u>\$103,802</u>	<u>\$190,759</u>	<u>183.77%</u>

\* Net of investment expenses and borrower's rebates and other agent fees on securities lending transactions of \$5,394 for June 30, 2017, and \$4,642 for June 30, 2016.

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EMPLOYEES' RETIREMENT SYSTEM**  
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Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

As summarized in Table 3, the Plan provides retirement, disability, survivor, and health insurance benefits to qualified members and their beneficiaries. The Plan must also provide refunds of employee contributions with interest to terminated employees who do not choose or are not qualified to vest.

**(Table 3)**

**Deductions in Net Position**

Years ended June 30, 2018 and 2017

	<u>2018</u>	<u>2017</u>	<u>Variance</u>	<u>%</u>
Pension benefits paid	\$97,669	\$90,240	\$7,429	8.23%
Health insurance				
benefits paid	8,315	7,912	403	5.09%
Refunds of contributions	393	465	(72)	-15.48%
Administrative expenses	1,551	1,429	122	8.54%
Total deductions	<u>\$107,928</u>	<u>\$100,046</u>	<u>\$7,882</u>	<u>7.88%</u>

**(Table 3)**

**Deductions in Net Position**

Years ended June 30, 2017 and 2016

	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>%</u>
Pension benefits paid	\$90,240	\$83,467	\$6,773	8.11%
Health insurance				
benefits paid	7,912	7,685	227	2.95%
Refunds of contributions	465	419	46	10.98%
Administrative expenses	1,429	1,311	118	9.00%
Total deductions	<u>\$100,046</u>	<u>\$92,882</u>	<u>\$7,164</u>	<u>7.71%</u>

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

Beginning fiscal year 2014, the District is required to present the past 10 years of net pension liability for the Employees' Retirement System pension plan (excluding Other Post-Employment Benefits) as it becomes available. The District has provided the past two fiscal years 2017 and 2016 in the footnotes and required supplemental information. The Net Pension Liability (NPL) was measured as of June 30, 2017 and 2016 have been determined from the actuarial valuations as of June 30, 2017 and 2016 respectively. As summarized in Table 4, the NPL decreased by \$116,633 from \$604,092 as of June 30, 2017 to \$487,459 as of June 30, 2018 primarily due to strong return on the market value of assets of 14.27% during fiscal year 2017 that was more than the assumption rate of 7.25% used in June 30, 2017 valuation.

**(Table 4)**

**Net Pension Liability**

Years ended June 30, 2018 and 2017

	<u><b>2018</b></u>	<u><b>2017</b></u>	<u><b>Variance</b></u>	<u><b>%</b></u>
Net Pension Liability	\$487,459	\$604,092	(\$116,633)	(19.31)%
Plan net position as a percentage of Total Pension Liability	76.43%	69.73%	6.70%	9.61%

**(Table 4)**

**Net Pension Liability**

Years ended June 30, 2017 and 2016

	<u><b>2017</b></u>	<u><b>2016</b></u>	<u><b>Variance</b></u>	<u><b>%</b></u>
Net Pension Liability	\$604,092	\$462,859	\$141,233	30.51%
Plan net position as a percentage of Total Pension Liability	69.73%	74.93%	-5.20%	(6.94)%

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Management's Discussion and Analysis

(Dollars in thousands)

June 30, 2018

Beginning fiscal year 2017, the District is required to present the past 10 years of net OPEB liability for the Employees' Retirement System health benefit plan as it becomes available. The District has provided the past two fiscal years 2017 and 2016 in the footnotes and required supplemental information. The Net OPEB Liability (NOL) was measured as of June 30, 2017 and 2016 have been determined from the actuarial valuations as of June 30, 2017 and 2016 respectively. As summarized in Table 5, the NOL decreased by \$9,279 from \$145,085 as of June 30, 2017 to \$135,806 as of June 30, 2018 primarily due to an increase in the discount rate between the 2016 and 2017 valuations.

**(Table 5)**  
**Net OPEB Liability**  
Years ended June 30, 2018 and 2017

	<u>2018</u>	<u>2017</u>	<u>Variance</u>	<u>%</u>
Net OPEB Liability	\$135,806	\$145,085	(\$9,279)	(6.40)%
Plan net position as a percentage of Total OPEB Liability	19.11%	15.37%	3.74%	24.33%

**Request for Information**

This financial report is designed to provide viewers with a general overview of the East Bay Municipal Utility District Employees' Retirement System's finances and demonstrate the District's accountability for the monies it manages. If you have any questions about this report or need additional information, please contact: Controller, Accounting Division MS #402, P.O. Box 24055, Oakland, CA 94623-1055.

EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM  
(A Component Unit of the East Bay Municipal Utility District)  
STATEMENT OF PLAN NET POSITION

June 30, 2018

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

(DOLLARS IN THOUSANDS)

	2018			2017
	Pension plan	Post-employment healthcare	Total	Total
	benefits	benefits		
Assets:				
Cash and cash equivalents, at fair value (Note 5)	\$40,348	\$848	\$41,196	\$48,988
Invested securities lending collateral (Note 5)	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 (Note 5):				
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 (Note 2B)	46,134	970	47,104	108,858
Total liabilities	59,488	1,251	60,739	117,751
Net position restricted for pension benefits and post-employment healthcare benefits	\$1,716,478	\$36,762	\$1,753,240	\$1,612,644

See accompanying notes to financial statements

EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM  
(A Component Unit of the East Bay Municipal Utility District)  
STATEMENT OF CHANGES IN PLAN 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 benefits	Post- employment healthcare benefits	Total	Total
Additions:				
Contributions (Note 3):				
Employer	\$71,221	\$9,875	\$81,096	\$76,860
Plan members	16,860	219	17,079	16,018
Total contributions	88,081	10,094	98,175	92,878
Investment income:				
Net appreciation (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 income, net	1,143	23	1,166	1,120
Total investment income	152,820	3,033	155,853	207,077
Less:				
Investment expense	(3,958)	(79)	(4,037)	(4,607)
Borrowers' rebates and other agent fees on securities lending transactions	(1,438)	(29)	(1,467)	(787)
Net investment income	147,424	2,925	150,349	201,683
Total additions, net	235,505	13,019	248,524	294,561
Deductions:				
Benefits paid (Notes 1C & 1D)	97,669	8,315	105,984	98,152
Refund of contributions (Note 4)	393		393	465
Administrative expenses	1,521	30	1,551	1,429
Total deductions	99,583	8,345	107,928	100,046
Change in net position	135,922	4,674	140,596	194,515
Net position:				
Beginning of year	1,580,556	32,088	1,612,644	1,418,129
End of year	<u>\$1,716,478</u>	<u>\$36,762</u>	<u>\$1,753,240</u>	<u>\$1,612,644</u>

See accompanying notes to financial statements



**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Basic Financial Statements  
(Dollars in Thousands)  
For the Year Ended June 30, 2018

<b>NOTE 1 – PLAN DESCRIPTION</b>
----------------------------------

**A. General**

The East Bay Municipal Utility District (the District) Employees' Retirement System (the System) was established in 1937 to administer a single-employer, contributory, defined benefit pension plan (the Pension Plan). The System provides retirement, disability, survivorship, and post-employment health insurance benefits (the OPEB Plan) 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.

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

The System is an integral part of the District and the District appoints the majority of the retirement board of the System and provides for its funding. Accordingly, the System's operations have been reported as a Pension and Other Employee Benefit Trust Fund in the District's basic financial statements.

**B. Membership**

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.

Investment income is credited semiannually to the accounts of the members using a rate of interest approved by the Retirement Board and determined as the lower of the latest five year average of the plan or the actuarial assumed earnings rate of the plan (7.25%). Interest was credited at an annual rate of 3.65% for the six months ended December 31, 2017 and 3.625% for the six months ended June 30, 2018.

Membership in the Pension Plan consisted of the following as of June 30, 2017, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	1,713
Terminated plan members entitled to	
but not yet receiving benefits	267
Active plan members	1,802
Total	<u><u>3,782</u></u>

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
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<b>NOTE 1 – PLAN DESCRIPTION (Continued)</b>
--

**C.     *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.

**D.     *Disability and Death Benefits and Allowances***

Members may receive disability retirement benefits prior to age 65 if the member is determined to be physically or mentally incapacitated, provided the member has 8 or more years of continuous full-time employment. The allowance for disability retirement is computed by a formula specified in the Ordinance and is based upon compensation earnable during employment, years of continuous service, and date upon which the retiring individual became a member. There is a guaranteed minimum disability benefit equal to the greater of one-third of terminal compensation (final average salary) or the retirement allowance, based on the disability formula.

Death benefits are payable to the estate or beneficiary of a member who dies before retirement. Survivorship benefits are payable to the spouse of a member who dies after retirement, or who was eligible but had not retired from service, provided the spouse was married to the member at the date of retirement and for at least one year prior to the member's death.

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**NOTE 1 – PLAN DESCRIPTION (Continued)**

***E. Post-Employment Healthcare Benefits***

Post-employment healthcare and similar benefit allowances are provided to eligible employees who retire from the District or to their surviving spouses. As of June 30, 2017, 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. Eligible participants are reimbursed up to \$450 per month for service members and up to \$550 for members with a spouse or registered domestic partner for any combined health, dental, or long-term care insurance premiums paid by the participant or his/her surviving spouse. Effective July 1, 1999, retirees may be reimbursed up to the designated maximum for the combined health insurance premiums for themselves, their current spouses, or registered domestic partners. The benefits were funded entirely by the District on an actuarial basis up until June 17, 2002. Effective June 18, 2002, a portion of the post-employment healthcare benefit costs is recovered through employee contributions. The actual benefits paid in cash to retirees were \$8,315 and \$7,912 and for the years ended June 30, 2018 and 2017, respectively.

Membership in the OPEB Plan consisted of the following as of June 30, 2017, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	1,548
Terminated plan members entitled to but not yet receiving benefits	267
Active plan members	<u>1,802</u>
Total	<u><u>3,617</u></u>

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

***A. Basis of Accounting and Presentation***

The System's activities are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to the Plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits, refunds, and other liabilities are recognized when due and payable in accordance with the terms of the Plan.

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

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<b>NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

***B. Investments and Fair Value Measurements***

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.

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 System 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.

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.

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<b>NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

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

As of June 30, 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.

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).

**C. *Allocation of Income and Expenses***

Contributions and benefit expenses are booked against the separate trusts as incurred. The recognition of investment income/loss is based on a pro rata share of total income/loss allocated quarterly on the basis of net position held in trust for pension benefits and post-employment healthcare benefits of the previous quarter. General expenses of the trust are allocated consistent with investment income/loss based on asset balances of the previous quarter.

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<b>NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)</b>
--

**D.     *Use of Estimates***

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.

**E.     *New GASB Pronouncements***

Management adopted the provisions of the following Governmental Accounting Standards Board (GASB) Statement, which became effective during the year ended June 30, 2018:

**GASB Statement No. 75 – *Accounting and Financial Reporting For Postemployment Benefits Other Than Pensions*.** The objective of this Statement is to establishes new accounting and financial reporting requirements for governments whose employees are provided with OPEB plans improving the accounting and financial reporting by state and local governments for OPEB and provides information provided by state and local government employers about financial support for OPEB that is provided by other entities. This statement replaces the requirements of Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions and Statement No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans.

<b>NOTE 3 – CONTRIBUTION INFORMATION</b>
--

The System is funded by contributions from its members and from the District. District contribution percentages are recommended by the Retirement Board, and employee contribution rates are established by the Board of Directors pursuant to the Retirement Ordinance, giving consideration to actuarial recommendations and prospective changes in factors which affect funding. Each member contributes to the 1980 Plan based upon a percentage of his or her covered compensation, which was 8.75% effective April 18, 2016 and 8.84% for the 2013 members effective January 1, 2013. The District's contribution is based upon the aggregate amount of members' covered compensation, at an actuarially determined rate.

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 3 – CONTRIBUTION INFORMATION (Continued)</b>
--

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, 2017, 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%

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 3 – CONTRIBUTION INFORMATION (Continued)**

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	\$76,860
Member contributions	16,807	177	16,984	15,945
	<u>88,027</u>	<u>10,052</u>	<u>98,079</u>	<u>92,805</u>
Other contributions:				
Member buybacks	53	42	95	73
	<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 \$81,096 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 as of June 30, 2017, consisted of \$76,860 in regular contributions (\$26,532 for normal cost and service cost; also includes \$50,328 for amortization of the unfunded actuarial accrued 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 3 – CONTRIBUTION INFORMATION (Continued)**

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. As a result, the District has recorded the Net OPEB Obligation (NOO), representing the difference between the ARC and actual contributions, as presented below for June 30, 2017.

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	<u>(1,719)</u>	
Annual OPEB cost - fiscal 2014/2015	11,542	
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	<u>(1,846)</u>	
Annual OPEB cost - fiscal 2016/2017	11,967	
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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<b>NOTE 3 – CONTRIBUTION INFORMATION (Continued)</b>
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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.

***Public Employees' Pension Reform Act (PEPRA)***

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

The table below provides the details of the new provisions.

Benefit Formula	2.5% at Age 67
Final Compensation Period	Average of last 3 years
Employer Contribution Rate as a percentage payroll	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 as of 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 45.00% of payroll for new members.

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**NOTE 4 – CONTRIBUTION REFUNDS**

When a member's District service is terminated, except by death or retirement, and prior to five years of continuous full-time employment, the amount of that member's accumulated contributions, plus interest, is refunded and membership is terminated. After a member has completed five years of continuous full-time employment, upon termination, except death or retirement, the member has the option of (a) ceasing to be a member and receiving the amount of his accumulated contributions, plus interest, or (b) remaining as a member and leaving his accumulated contributions, plus interest, in the Plan. After termination, a member cannot make additional contributions to the Plan.

If a member with fewer than five years of employment terminates employment and within six months becomes a member of the Public Employees' Retirement System or another reciprocal system, the individual may elect to remain a member, leaving his accumulated contributions, plus interest, in the Plan.

**NOTE 5 – CASH AND INVESTMENTS**

**A. *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 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%

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**NOTE 5 – CASH AND INVESTMENTS (Continued)**

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.

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.

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<b>NOTE 5 - CASH AND INVESTMENTS (Continued)</b>
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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%.

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.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

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.

**B. Financial Statement Presentation**

Total cash and investments at fair value as of June 30, consisted of the following:

	2018			
	Pension plan	Post-employment healthcare	Total	2017
	benefits	benefits		
Cash and cash equivalents	\$40,348	\$848	\$41,196	\$48,988
Invested securities lending collateral	46,134	970	47,104	108,858
Investments	1,683,014	35,384	1,718,398	1,563,978
Total cash and investments	<u>\$1,769,496</u>	<u>\$37,202</u>	<u>\$1,806,698</u>	<u>\$1,721,824</u>

**C. Fair Value Hierarchy**

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure 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.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

The following is a summary of the fair value hierarchy of the fair value of investments of the System 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>

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  
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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

**D. Interest Rate Risk**

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

Information about the sensitivity of the fair values of the 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 System's investments by maturity or earliest call date:

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	<u>\$649,522</u>	<u>\$87,958</u>	<u>\$62,075</u>	<u>\$72,493</u>	<u>\$846,350</u>	<u>\$1,718,398</u>

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

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



**EAST BAY MUNICIPAL UTILITY DISTRICT  
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<b>NOTE 5 - CASH AND INVESTMENTS (Continued)</b>
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***E. Foreign Currency Risk***

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair values of an investment or deposit. 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 13.00%.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

**F. 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 rating organization. Presented below is the actual rating as of June 30, 2018, for each investment type as provided by Moody's or Standard and Poor'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
Index Linked Government Bonds	1,542							1,542
Municipal Bonds		2,333					130	2,463
Non-Government Backed								
Commercial Mortgage Obligation	1,517		88	349			20	1,974
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>

**G. Concentration Risk**

As of June 30, 2018 and June 30, 2017, 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.

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**NOTE 5 - CASH AND INVESTMENTS (Continued)**

**H. 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 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 System'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 System's name and places the System ahead of general creditors of the institution.

The System invests 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 System employs the Trust Department of a bank or trustee as the custodian of certain System investments, regardless of their form.

As of June 30, 2018 and 2017, the System's brokers/dealers held \$4 and \$26 respectively, in cash exposed to custodial credit risk.

**NOTE 6 – NET PENSION LIABILITY**

The net pension liability (the Plan's liability determined in accordance with GASB 67 less the fiduciary net position) as of June 30, 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%

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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**NOTE 6 – NET PENSION LIABILITY (Continued)**

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.

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below.

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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Notes to Basic Financial Statements  
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**NOTE 6 – NET PENSION LIABILITY (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 was 7.25% as of June 30, 2018 and June 30, 2017. 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.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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(Dollars in Thousands)  
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**NOTE 6 – NET PENSION LIABILITY (Continued)**

In accordance with GASB 67 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

**NOTE 7 – NET OPEB LIABILITY**

The net OPEB liability (The Plan's liability determined according to GASB 74) 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  
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(Dollars in Thousands)  
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**NOTE 7 – NET OPEB LIABILITY (Continued)**

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

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  
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(Dollars in Thousands)  
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**NOTE 7 – NET OPEB LIABILITY (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  
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Notes to Basic Financial Statements  
(Dollars in Thousands)  
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**NOTE 7 – NET OPEB LIABILITY (Continued)**

In accordance with GASB 74 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 74 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% as well as what the Plan's net OPEB liability would be if it were calculated using a trend rate that is 1-percentage-point lower (7.00% graded to ultimate 4.50% over 10 years) or 1-percentage-point higher (6.50% graded to ultimate 4.50% over 8years) than the current rate:

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

**NOTE 8 – BENEFIT GUARANTY**

**A. Pension Plan**

The District may, at any time, change or repeal the ordinance governing the Plan. The District's obligations to those members receiving or eligible for a retirement allowance prior to such change or repeal shall continue in full force. The District is obligated to those members neither receiving nor eligible for a retirement allowance at the time of such change or repeal. This allowance will be a retirement allowance at retirement age equal to the actuarial equivalent of the accumulated value of the member's contributions standing to the member's credit at the date of retirement and the accumulated value of the District's contribution for current service to the date of such change or repeal, increased by the accumulation of interest to date of retirement.

**B. Post-Employment Healthcare Benefits**

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.

**EAST BAY MUNICIPAL UTILITY DISTRICT  
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Notes to Basic Financial Statements  
(Dollars in Thousands)  
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**NOTE 8 – BENEFIT GUARANTY (Continued)**

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.

**NOTE 9 – RELATED PARTY TRANSACTIONS**

The District provides the System with accounting, treasury, and other administrative services, which are reimbursed by the System on a monthly basis. Total reimbursements in fiscal years 2018 and 2017 were \$1,013 and \$1,049 respectively.

## **REQUIRED SUPPLEMENTARY INFORMATION**

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2018

**(1) Pension Plan**

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

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

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

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2018

**(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  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2018

**(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

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2018

**(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 payroll on which contributions to the pension plan are based.

Unaudited

**EAST BAY MUNICIPAL UTILITY DISTRICT  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2018

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  
EMPLOYEES' RETIREMENT SYSTEM**  
(A Component Unit of the East Bay Municipal Utility District)

Notes to Required Supplementary Information

(Dollars in Thousands)

For the Year Ended June 30, 2018

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; assumptions changes are amortized over separate decreasing 25-year periods; and experience gains/losses (including year-to-year health assumption changes) 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 OPEB Plan investment expense, including inflation
Average projected salary increases*	Ranges from 4.00% to 9.50% based on years of service*
Inflation rate	3.00%
Health care trend	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.

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**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  
Employees' Retirement System  
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 Employees' Retirement System (the System), as of and for the year ended June 30, 2018 and the related notes to the financial statements, and have issued our report thereon dated August 27, 2018.

***Internal Control Over Financial Reporting***

In planning and performing our audit of the financial statements, we considered the System'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 System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System'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 System'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 System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We have also issued a separate Memorandum on Internal Control dated August 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 System'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 System'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