

COMPREHENSIVE ANNUAL FINANCIAL REPORT

for the years ended June 30, 2018 and 2017



EAST BAY MUNICIPAL UTILITY DISTRICT • OAKLAND, CALIFORNIA 94623
Prepared by the Accounting Division of the Finance Department

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Letter of Transmittal

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December 31, 2018
East Bay Municipal Utility District
Oakland, California

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the East Bay Municipal Utility District (EBMUD) for the fiscal year ended June 30, 2018.

The Comprehensive Annual Financial Report has been prepared by the Finance Department in compliance with the principles and standards for financial reporting set forth by the Governmental Accounting Standards Board. Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive internal control framework it established for this purpose. Because the cost of internal control should not surpass its benefits, the objective is to provide reasonable rather than absolute assurance that the financial statements are free of material misstatements.

Maze & Associates, Accountancy Corporation, have issued an unqualified ("clean") opinion on the East Bay Municipal Utility District's financial statements for the year ended June 30, 2018. The purpose of the independent audit was to provide reasonable assurance that these financial statements for the year ended June 30, 2018, are free of material misstatements. The independent auditor's report is located at the front of the financial section of this report.

Management's discussion and analysis immediately follows the independent auditor's report and provides an introduction, overview and analysis of the basic financial statements. This transmittal letter is designed to complement and be read in conjunction with the management's discussion and analysis.

The Comprehensive Annual Financial Report follows the guidelines recommended by the Government Finance Officers Association (GFOA) of the United States and Canada. EBMUD is submitting this Comprehensive Annual Financial Report to GFOA for review and certification.

The East Bay Municipal Utility District is a publicly owned utility formed in 1923 under the State of California's Municipal Utility District Act of 1921 (MUD Act) to provide quality water services to parts of Alameda and Contra Costa counties. EBMUD captures snowmelt from 575 square miles of mostly undeveloped watershed lands of the Mokelumne River, and collects it at Pardee Reservoir 90 miles east of the Bay Area. EBMUD has water rights for up to 325 million gallons daily from the Mokelumne River watershed to serve Bay Area customers. EBMUD's Camanche Reservoir, downstream of Pardee, stores water to meet the needs of fisheries, riparian habitat and downstream water rights holders.

The MUD Act was amended in 1941 to enable formation of special districts. In 1944, voters in six East Bay cities elected to form EBMUD's Special District No. 1 to treat wastewater released into the Bay. Wastewater treatment for those cities began in 1951 and was expanded 20 years later to include Kensington, El Cerrito and part of Richmond.

The District's Water System collects, transmits, treats, and distributes high quality water to approximately 60 percent of the developed area within Alameda and Contra Costa counties in California. The system serves approximately 1.4 million people in a 332-square-mile area extending from Crockett on the north, southward to San Lorenzo (including Richmond, Emeryville, Oakland, Berkeley, Alameda, San Leandro and Castro Valley), eastward from San Francisco Bay to Walnut Creek (including Orinda, Moraga and Lafayette), and south through the San Ramon Valley (including Alamo, Danville and San Ramon). The EBMUD Wastewater System protects public health and the San Francisco Bay with wastewater treatment and innovative pollution prevention programs. The system intercepts and treats wastewater from residences and industries along the Bay's east shore, from Richmond in the north to San Leandro in the south, including Alameda, Albany, Berkeley, El Cerrito, Emeryville, Kensington, Oakland, Piedmont and part of Richmond, serving approximately 685,000 customers in an 88-square-mile area of Alameda and Contra Costa counties.

A seven-member Board of Directors, elected by wards for four-year terms, determines overall policies, which are then implemented under the direction of the General Manager.

BOARD DIRECTORS

Ward 1 – Lesa R. McIntosh (President)

Ward 2 – John A. Coleman

Ward 3 – Marguerite Young

Ward 4 – Andy Katz

Ward 5 – Doug Linney

Ward 6 – William B. Patterson (Vice President)

Ward 7 – Frank Mellon

Board meetings are open to the public and held the second and fourth Tuesdays of each month. In addition, workshop sessions, special meetings, and public hearings are occasionally scheduled and noticed. Each Board member serves on one or more standing Board committees. The committees review and make recommendations on matters of major interest before discussion by the full Board at a regular meeting. Standing committees of the Board are Planning, Retirement, Sustainability/Energy, Legislative/Human Resources and Finance/Administration. Board members also represent EBMUD at the Association of California Water Agencies, the Bay Area Water Forum, the Freeport Regional Water Authority, the Upper Mokelumne River Watershed Authority, the Dublin San Ramon Services District/EBMUD Recycled Water Authority (DERWA), EBMUD/East Bay Regional Park District, Bay Area Clean Water Agencies (BACWA), and the Special Districts Associations in Alameda and Contra Costa counties.

EBMUD had approximately 1,877 active full-time employees in fiscal year 2018 under the administrative direction of appointed General Manager Alexander R. Coate and management staff. Employees are represented by the American Federation of State, County and Municipal Employees, Locals 444 and 2019, International Federation of Professional, Technical Engineers Local 21 and International Union of Operating Engineers Local 39. EBMUD is an equal opportunity employer and encourages diversity in contracting and in the workforces of District contractors.

EBMUD has continually pursued an array of solutions to provide a reliable water supply to its service area and protect the San Francisco Bay now and into the future. EBMUD continues to focus on water supply planning and drought protection, water quality, water conservation, infrastructure maintenance and improvements, watershed protection, wastewater treatment, customer service and fiscal integrity and stability.

EBMUD's service area encompasses cities in northern Alameda County and western and central Contra Costa County.

The seven cities EBMUD serves within Alameda County are Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont and San Leandro. These cities along the eastern shore of the San Francisco Bay feature pleasant climate and a rich diverse culture. They are host to the nation's strongest research, development and innovation clusters. In addition to excelling in many diversified technical disciplines, the area features leading research institutions and higher education institutions. These include the Lawrence Berkeley National Laboratory and University of California Berkeley, as well as, a high concentration of private technology development companies and clean tech innovation centers. The Port of Oakland is also vital to national economic competitiveness, strengthening the national balance of trade, and handling 99 percent of containerized cargo in Northern California. The government sector provides the largest share of total payroll employment by industry in the East Bay, followed by the health care, retail trade and leisure and hospitality, professional scientific and technical services, manufacturing, and construction. In addition to the employers mentioned above, other major employers include Kaiser Permanente, Alameda County, City of Oakland, Bay Area Rapid Transit (BART), State of California, Oakland Unified School District, Alta Bates Summit Medical Center, Pandora, East Bay Regional Park District, Clorox, Bayer Healthcare, Cost Plus, Dryer's/Edy's Grand Ice Cream, Peet's Coffee and Tea, PowerBar, Clif Bar, IKEA, Novartis, Acme Bread Company, and Pixar.

The West Contra Costa County region includes El Cerrito, Hercules, Pinole, Richmond and San Pablo. This region historically has been one of the Bay Area's significant manufacturing regions. In addition, this region provides favorable weather, excellent Bay and bridge views, as well as marinas that offer excellent residential values for those seeking to escape higher prices elsewhere in the San Francisco Bay Area. The Craneway Pavillion, a repurposed Ford Factory located on San Francisco Bay, houses a number of emerging technology companies and also includes an attractive event space. The adjacent Rosie the Riveter World War II Home Front National Historical Park documents some of the past industrial history of the area. Nearby, the San Pablo Bay is a favored saltwater fishing destination and a popular wintering stop and migratory staging ground for numerous species of waterfowl. Chevron is the largest employer in the West Contra Costa region and this sub-region, with its cluster of refineries, is a national leader in the petrochemical industry. In addition to Chevron, other major employers include Bio-Rad Laboratories, West Contra Costa Unified School District, and Sangamo Biosciences.

The Central Contra Costa County region, commonly known as “Central County” includes Clayton, Concord, Lafayette, Martinez, Moraga, Orinda, Pleasant Hill and Walnut Creek. Central County offers a variety of living environments ranging from rural to urban. The area also boasts some of Northern California’s most desirable residential communities along with some of the top public schools in the state. Walnut Creek and Pleasant Hill offer excellent examples of contemporary downtown centers and have become local retail destinations. The Leshner Center for the Arts is an arts destination with over 900 productions and events a year. Higher education institutions such as the Diablo Valley College and John F. Kennedy University and health care providers such as John Muir/Mt. Diablo Regional Medical Centers in Walnut Creek and Concord, Kaiser Hospital and clinics in Walnut Creek and Martinez, along with the Contra Costa Regional Medical Center and Veterans Administration Hospital in Martinez provide over 30,000 jobs in this region. Other significant industries in the area include trade, transportation and utilities, and professional and business services. Concord is home to an emerging biomedical industry cluster and Walnut Creek is the center of a large financial services group. Significant employers include: Diablo Valley College, Kaiser Foundation Hospitals, AT&T Services, Cellco Partnership, John Muir Health, California State Automobile Association, Frances Mary Accessories Inc., Bay Area News Group and Shell Martinez Refining Co.

According to the East Bay Economic Outlook 2018, the strong growth is expected to continue through 2019. The East Bay’s labor market continues to post steady gains and is poised for further growth in 2019. Nonfarm employment growth from March 2017 to March 2018 was 1.7% outpacing the 1.5% growth in the nation and San Francisco Metropolitan Division during the same period. In March, 2018, the unemployment rate of 3.0% was well below the nation (4.1%) and the state overall (4.3%). Employment gains have been seen across a broad range of sectors including construction, high-skilled, high-tech, manufacturing, health care, retail, government and leisure and hospitality. Payroll employment is forecast to grow at more than 1.7% throughout the end of 2018 and unemployment is expected to remain below 4%. Personal income in Alameda County grew faster than personal income in other parts of the Bay Area increasing by 4.8% in 2016. From 2016 to 2017, taxable sales and receipt data demonstrate significant growth across the year indicating an increased in business and consumer spending activity. Tourism activity also increased in 2017, while hotels in the East Bay also finished off the year strong. The building and construction posted strong growth with a 9.3% increase during 2017. The commercial real estate market in the East Bay continued to grow steadily with vacancy rate continued to remain near post-recession low.

Consistent with Government Finance Officers Association (GFOA) recommendations EBMUD has developed a strategic plan that is a blueprint for how the District will respond to future challenges and changing priorities. Based on EBMUD's mission and values, goals are established, monitored and reviewed regularly with the Board of Directors.

MISSION

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

PRINCIPLES

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

SUSTAINABILITY

Sustainability means using resources (environmental, economic, and social) in a responsible manner that meets the needs of today without compromising the ability of future generations to meet the needs of tomorrow. This business approach applies a holistic view and strives to minimize waste, conserve energy and natural resources, promote long-term economic viability, and support safety and well-being for employees, communities, and customers in ways that benefit society.

GOALS

- Long-term water supply:
Ensure a reliable high quality water supply for the future
- Water quality and environmental protection:
Meet or surpass environmental and public health standards and protect public trust values
- Long-term infrastructure Investment:
Maintain and improve the District's infrastructure in a cost-effective manner to ensure sustainable delivery of reliable, high quality service now and in the future, addressing economic, environmental, and social concerns.
- Long-term financial stability:
Manage the District's finances to meet funding needs and maintain fair and reasonable water and wastewater rates
- Customer and community services:
Build stakeholder trust and long-term relationships through service excellence, proactive communication and education.
- Workforce planning and development:
Create an environment that attracts, retains and engages a high performing diverse workforce in support of the District's mission and core values



INTRODUCTION

The District has a comprehensive set of financial policies that set forth comprehensive guidelines to maintain accountability and control over operating revenue and expenditures, ensure proper appropriation of reserves and restricted funds, and maintain a reasonable balance between debt and assets in providing funding for capital projects.

FINANCIAL POLICIES

Investments

Annually, the Board adopts an investment policy that is in compliance with the California Government Code, Sections 53600 et seq. The investment of idle funds is delegated by the Board to the District's Director of Finance as the Treasurer who assumes full responsibility for the transactions of the investment program. The objectives of the investment policy are safety, liquidity, yield and diversity. The District's investments are in compliance with the adopted investment policy. See Note 2 in the Notes to the Financial Statements for detailed investment information.

Rate Stabilization

The District's Rate Stabilization Funds for the Water and Wastewater Systems were established in 1986 to enable the deposit of funds upon determination that there are revenues remaining for such deposits after the District has satisfied the debt service and other requirements set forth in the District's bond documents including the payment of operation and maintenance costs. The funds may be utilized in future years to mitigate lower than expected debt coverage in a given fiscal year.

The District maintains a Contingency and Rate Stabilization Reserve in accordance with District's Fiscal Policy 4.02. The purpose of this fund is to provide an adequate reserve to mitigate overall rate volatility resulting from climatic or economic changes that significantly decrease the District's revenues or increase the District's operating costs. These General Fund Reserves are unrestricted.

In fiscal year 2014, the District combined the Rate Stabilization Fund and the Contingency and Rate Stabilization Reserve into a Single Rate Stabilization Fund Reserve.

Internal Controls

EBMUD management is responsible for establishing and maintaining adequate internal controls to assure that District operations are effective and efficient, that applicable laws and regulations are followed, and financial reports are reliable. Internal controls provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and that cost-benefit analyses require estimates and judgments by management.

FINANCIAL HIGHLIGHTS

Financial Position

The District's overall financial condition continues to be sound as demonstrated by a stable revenue base, effective cost containment, increase in net position and adequate fund reserves.

In fiscal year 2018, EBMUD continued to effectively manage its finances and strengthen its financial position by adopting sufficient water and wastewater rates to fund capital infrastructure improvements and to maintain strong financial performance. The following results of operations indicate a continuing strong and stable fiscal position:

- Net position increased by \$102 million or 7% during the fiscal year.
- Capital assets increased by \$205 million or 4% to \$4.9 billion.
- Operating revenue increased by \$65 million or 12% to \$599 million.
- Operating expense remained stable at \$430 million.
- Non-operating net expense decreased by \$4 million or 7% to (\$58) million.
- Capital contributions increased by \$14 million or 17% from the prior fiscal year.

Debt Administration

As of the end of fiscal year 2018, the Water System had total long-term term revenue bonds, commercial paper notes and state loans outstanding of \$2.7 billion. The Wastewater System had total long-term revenue bonds and extendable commercial paper notes outstanding of \$395 million. After a final \$3.5 million principal payment in fiscal year 2018, the Wastewater System's General Obligation bonds have now fully matured.

Prudent financial management policies have resulted in long-term bond ratings of AAA for Water and Wastewater from Standard & Poor's, Aa1 for Water and Aa2 for Wastewater from Moody's Investors Service and AA+ for Water and Wastewater from Fitch Ratings.

In fiscal year 2018, the District signed two loan agreements with the State Water Resources Control Board for \$18.9 million and \$18 million, respectively. The District received \$2.3 million thus far. The District issued no water or wastewater revenue bonds in fiscal year 2018.



Budget and Rates

The Board of Directors adopted the first year of the biennial budget for fiscal years 2018 and 2019 which supports EBMUD's mission, values and strategic plan. The adopted total biennial budget for fiscal years 2018 and 2019 is \$2.03 billion, \$1.73 billion for the Water System, and \$0.30 billion for the Wastewater System. The Water System rate increase was 9.25 percent for fiscal year 2018 and 9.0 percent for fiscal year 2019, and the Wastewater System rate increase was 5.0 percent for fiscal year 2018 and 5.0 percent for fiscal year 2019.

The budget addresses the key strategic plan priorities of reinvesting in aging physical infrastructure and expanding preventative maintenance to continue providing high quality and reliable service. To provide for long-term financial stability, the budget was based on prudent assumptions for water sales and customer conservation, and met the Board's adopted financial policies and the District's credit ratings. It supports the District's mission, values and strategic plan, and the Board's commitment that the East Bay's world class quality of life must be supported by a world class water and wastewater utility.

The total Water System budget was \$864 million in fiscal year 2018, and \$870 million in fiscal year 2019. The Capital Improvement Program (CIP) continues its focus on investments in infrastructure rehabilitation, repair and replacement. Over the five year period (fiscal year 2018 to 2022), major capital work includes anticipated spending of \$458 million on the pipelines, regulators and appurtenances program which includes expanding the rate of pipeline replacements; \$150 million on pressure zone improvements; \$139 million on water treatment plant upgrades; \$104 million on raw water aqueduct improvements; and \$103 million on reservoir rehabilitation.

The total Wastewater System budget was \$140 million in fiscal year 2018 and is \$156 million in fiscal year 2019. Over the five year period (fiscal year 2018 to 2022), major capital work includes anticipated spending of \$44 million to rehabilitate and improve the infrastructure at the wastewater treatment plant; \$32 million to rehabilitate sewer interceptors; \$23 million to address odor conditions; and \$21 million to upgrade the digesters.

INTRODUCTION

In fiscal year 2018, EBMUD continued focus on securing long-term water supply, protecting water quality and the environment, and improving the District's infrastructure. EBMUD implemented an overall plan to meet these goals with its Water Supply Management Program 2040, which helps EBMUD meet water needs in the coming decades. Rate increases and cost-cutting programs continued to stabilize and improve EBMUD's financial position. Through cooperative efforts with stakeholders in fiscal year 2018, EBMUD continued to maneuver through many challenges with strength and stability.

LONG-TERM WATER SUPPLY

Secure water supplies

In California, where new water projects take years to develop, long-term planning ensures reliable water supplies for the future. EBMUD continues to implement its Water Supply Management Program 2040, which guides EBMUD to ensure water needs for its customers are met over the long term. The plan calls for maintaining a reliable, high-quality water supply by aggressively conserving water, recycling wastewater and developing a variety of regional water supply sources. The plan stresses the District's objectives to preserve and protect the environment, adjust to new regulations and water system changes, seek cost-effective collaborative solutions and prepare for uncertainties including climate change and challenges in the Sacramento-San Joaquin Delta. The District's Water Conservation Master Plan, updated in 2011, is part of the Water Supply Management Plan 2040 and directs comprehensive strategies and initiatives to reduce customers' water use by 39 million gallons per day (MGD) by the year 2040.

Camanche Permit Extension

EBMUD's primary water rights on the Mokelumne include our permanent license for Pardee Reservoir and our Permit 10478, which authorizes EBMUD to operate Camanche Reservoir. In August 2016, EBMUD secured an extension to the Camanche Permit to the year 2040 by developing a comprehensive Environmental Impact Report, which verified that no substantive changes were proposed for diversion and storage of water. The extension was granted following over 16 years of committed analysis and

collaboration with resource agencies, stakeholders and fellow Mokelumne River water rights holders, and resulted in new agreements to embark on future groundwater banking projects. Through the extension, EBMUD has ensured that the East Bay Area can continue to use this supply for decades to come.

Water Conservation

Thanks to strategic water supply plans, continued conservation by customers, strong rainfall, and investments in conservation, recycled water and supplemental supplies, EBMUD projects sufficient water supply to meet future demand. Throughout the drought and recent above-normal rainfall years, EBMUD continued to support outreach and engagement with consumers to ensure conservation remains a way of life in California.

The District's comprehensive water conservation and recycled water programs ensure that EBMUD will meet requirements of the California Water Conservation Act of 2009, which mandates a 20 percent reduction in water use by 2020. Ongoing demand reduction by EBMUD customers has positioned the District well to meet its target water savings by 2020 and beyond.

To further support water conservation efforts, EBMUD is implementing an aggressive leak detection program to save valuable water, reduce repair costs and customer inconveniences resulting from pipe breaks. The District has investigated innovative acoustic, satellite and pressure-sensing technology to detect underground leaks before they fully compromise pipes. The District has committed to significant investments in new leak detection monitors in the coming years.

Water Recycling

EBMUD maintains a Recycled Water Master Plan to plan for and implement recycled water projects. These projects provide a local, reliable and sustainable water supply to offset the use of potable water and lessen the need for severe rationing during droughts. The District currently has the capability to provide an average of 9 million gallons per day (MGD) of recycled water to our customers, and the goal is to recycle 20 MGD by the year 2040. EBMUD is currently updating its Recycled Water Master Plan to refresh its non-potable reuse goals as well as consider how potable reuse might play a role in future water supply plans. EBMUD expects to complete the master plan update in 2019. Recycled water is provided for industrial processes, landscape irrigation, commercial cooling and toilet flushing. EBMUD's current recycled

water projects include East Bayshore, San Ramon Valley, North Richmond, Richmond Advanced Recycled Expansion (RARE), and San Leandro.

The East Bayshore project provides recycled water for a variety of non-potable uses in portions of Emeryville and Oakland. The San Ramon Valley project provides recycled water for landscape irrigation to customers in San Ramon. The San Leandro project provides recycled water for irrigation to portions of Alameda. The North Richmond and RARE projects provide recycled water to the Chevron Richmond Refinery for its cooling towers and boiler feedwater system. Chevron, under contract, continues to pay a volumetric rate for water from the North Richmond Water Recycling Plant, and a monthly service charge to cover all capital, operations, and maintenance costs associated with the RARE facility. Over the years, EBMUD has secured federal, state, and customer-specific funds to pay portions of these recycled water facilities. Recently, state funds were secured to install a segment of the East Bayshore pipeline from Oakland to Emeryville. EBMUD partnered with the City of Albany's bike path project to install another segment of the East Bayshore pipeline, resulting in cost savings.

Regional Water Supply Sources

California water systems were built to serve the populations and geographical areas that invested in them – but seldom were designed to work across different agencies. Since 2014, the Bay Area's largest water agencies have been working together to develop regional solutions under the Bay Area Regional Reliability project (BARR), seeking to improve water supply reliability for the Bay Area's more than 6 million area residents and thousands of businesses and industries. The Contra Costa Water District, East Bay Municipal Utility District, Marin Municipal Water District, San Francisco Public Utilities Commission (with the Bay Area Water Supply and Conservation Agency), Santa Clara Valley Water District, Zone 7 Water Agency, and Alameda County Water District have joined forces to leverage existing facilities and, if needed, build new ones to bolster regional water supply reliability. In addition to enhancing reliability, this approach aims to improve emergency preparedness, address climate resilience, leverage existing infrastructure investments and facilitate water transfers during critical periods of drought or after natural disasters. In fall 2015, the BARR partner agencies received a \$200,000 grant from the U.S. Bureau of Reclamation (Reclamation) to prepare a Drought Contingency Plan. This plan is the first phase of a multiphase effort and summarizes how the agencies respond to droughts, determines drought-related vulnerabilities, and identifies potential mitigation measures to help the region better weather future droughts. The agencies completed the Drought Contingency Plan published in 2017. The agencies also have awarded a \$400,000

grant from Reclamation to fund one of the projects identified in the Drought Contingency Plan: developing a Regional Water Market program to facilitate transfers and exchanges. In addition, EBMUD participated in a second BARR project a participant in the Los Vaqueros Reservoir Enlargement Project.

In May 2013, the EBMUD Board adopted a groundwater management plan for the southern portion of the East Bay Plain Groundwater Sub-Basin. This plan provides a management structure to protect the sub-basin, which is used to store a drought supply for EBMUD's Bayside Groundwater Project. The Bayside Groundwater facility consists of a groundwater well to store excess water in wet periods for later recovery during droughts, when up to one million gallons per day of water can be pumped from the aquifer. The District began injection tests of the Bayside facility in fiscal year 2017. On November 29, 2016, the State of California, as the Groundwater Sustainability Agency, designated EBMUD the authority over the portion of the East Bay Plain Basin that overlies the EBMUD service area. EBMUD will spearhead the development of a Groundwater Sustainability Plan with other stakeholders to enhance basin protection measures.

EBMUD also pursues groundwater banking projects with partners outside its service area to help store water supplies for use during droughts. In September 2017, EBMUD executed an agreement with San Joaquin County and the North San Joaquin Water Conservation District to develop the Demonstration Recharge, Extraction, and Aquifer Management (DREAM) Project. Under this pilot, during wet years EBMUD will supply up to 1,000 acre-feet (AF) of Mokelumne River water to farmers who will use it for irrigation in place of pumped groundwater. In exchange, EBMUD can then extract up to 500 AF of water from the aquifer during dry years to meet customer demand. In 2018, EBMUD executed an agreement with the City of Hayward for the development of a groundwater sustainability plan and awarded a total of \$1 million grant funding from the Department of Water Resources of the State of California.

During normal rainfall years, EBMUD customers receive 90 percent of their water from the Mokelumne River watershed in the foothills of the Sierra Nevada, when the Mokelumne and local East Bay watersheds provide sufficient water for EBMUD's current and foreseeable needs. However, California has a history of recurrent droughts, and during these times, conservation isn't enough to meet the shortfall. To ensure additional water supply is available in dry years, EBMUD partnered with Sacramento County Water Agency to build the Freeport Regional Water Project. The Freeport facility allows both Sacramento County and EBMUD to access water supplies from the Sacramento River just south of Sacramento. The project was activated in fiscal year 2014 and 2015 to transfer purchased drought water supply from water transfers and the District's Central Valley Project contract.

In addition, EBMUD continued discussions with numerous agencies regarding future partnership opportunities related to long-term water transfers, groundwater banking, and regional desalination.

WATER QUALITY AND ENVIRONMENTAL PROTECTION

New Phase in Bay Protection

San Francisco Bay and the Sacramento / San Joaquin River Delta System are profoundly influenced by the human population of roughly 15 million California residents that draw drinking water and discharge waste into the system. This is one of the most highly urbanized estuary and delta systems in the world. Urban and agricultural runoff, legacy and ongoing industrial wastewater pollution, freshwater and groundwater withdrawals, habitat loss, species extinctions, invasion by non-native species, and a host of other influences profoundly impact the “Bay-Delta System.” Among those many concerns, San Francisco Bay receives some of the highest nitrogen loads among estuaries worldwide, yet has not historically experienced the water quality problems typical of other nutrient-enriched estuaries. Because most of the Bay Area wastewater treatment plants were not originally designed to remove nutrients, effluent discharges from these plants are the major nutrient sources, accounting for more than 60 percent of the total nutrient load to the Bay. It is not known whether this level of nitrogen loading, that will continue to increase in proportion to human population increase, is sustainable over the long term. Special studies and expanded monitoring carried out through the Nutrient Management Strategy Committee (comprised of regulators, the wastewater agencies, and other Bay stakeholders) have revealed some water quality conditions (e.g., recurring low dissolved oxygen in some margin habitats and consistent detection of multiple toxins produced by harmful algae) that have been associated with nutrient over-enrichment in other estuaries. Potential impacts of these conditions on human and ecological health need to be more extensively evaluated and causal factors determined. A further complication is that the Bay’s response to nutrients is influenced by many physical and biological factors including suspended sediment concentrations, light availability, freshwater inputs, and ocean conditions. These factors themselves vary by Bay sub-embayment and due to regional land and water management and climate oscillations. Therefore, a wide range of monitoring and special studies is needed to understand what might happen to Bay water quality as a result of changes in nutrients and other factors.

Due to the significant costs associated with nutrient removal, the District is currently collaborating with regulators and regional stakeholders, through a national award-winning Nutrient Management Strategy framework, on scientific research to determine the impacts of nutrients on Bay water quality and on the development of effective nutrient management solutions for the Region. In addition, the District has embarked on an effort to develop a comprehensive master plan that will not only evaluate a wide range of nutrient reduction strategies, but also integrate and coordinate all the competing priorities of aging infrastructure needs, seismic vulnerabilities, regulatory changes, and sustainability drivers for its wastewater treatment plant.

Pollution Prevention

Federal regulations require the District to operate and maintain a Pollution Prevention Program that similarly reduces pollutants at the source from residential, commercial, and non-regulated industrial dischargers. While federally required, the District has some latitude in implementing the the program and has focused on best management practices through commercial pollution prevention permits; education and outreach to residential customers; and collection programs for fats, oils, and grease (FOG) and pharmaceutical waste. Recently, the District pioneered a cannabis permit program and has reviewed 24 permit applications to date and serves as a model for other wastewater agencies. As part of its Pollution Prevention Program, the District offers free public tours of its Main Wastewater Treatment Plant. Since inception of tour program in 2016, staff has provided over 150 tours, allowing over 2,270 visitors to learn about what is required to treat wastewater and safeguard the San Francisco Bay and what actions they can undertake to prevent pollution at the source.



Environmental Stewardship

The Mokelumne River, EBMUD's primary water source, flows into the Sacramento-San Joaquin Delta. While EBMUD's supplies are not taken directly from the Delta, protection of the Delta and its environmental health are important to EBMUD. The Delta faces many challenges to its sustainability, both as a viable ecosystem and for water conveyance with its vast network of earthen levees. EBMUD, in partnership with the state and local interests, has invested over \$30 million to strengthen the levees that protect critical infrastructure, including EBMUD's water lifelines – the Mokelumne Aqueducts. EBMUD has also invested \$40 million to strengthen the aqueducts to help withstand seismic events. The Delta itself is a dramatically altered ecosystem that presents many challenges to sustainable fisheries. In addition to making efforts to restore and enhance the salmon fishery in the Mokelumne River, EBMUD has worked cooperatively with state and federal regulatory agencies to develop and implement a flow agreement that protects Mokelumne fish. With the Water Supply Management Plan 2040, EBMUD intensified its commitment to water use efficiency and regional cooperation, thus reducing pressure on demands from the Delta watershed. With the state's continued pursuit of the California WaterFix (formerly the Bay Delta Conservation Plan), EBMUD has stepped up its advocacy to protect its interests regarding the Freeport Project operations, the Mokelumne Aqueducts, the Mokelumne fishery, and other potential concerns.

EBMUD continued its stewardship efforts on the Mokelumne River in 2018 with habitat improvements for salmon and steelhead spawning, conducting a telemetry study of out-migrating salmon to better understand migratory path and survival, implementing pulse flows to enhance fish returns and working with federal water project operators to modify Delta operations to minimize impacts to salmon. The success indicator for these efforts is in the record-breaking return of salmon to the Mokelumne River in 2018.

Water Quality and Safety

Federal and state regulatory agencies continually evaluate and establish new water quality standards for drinking water for protection of public health. Every day of the year EBMUD's laboratory tests water samples throughout the water system to ensure that water quality meets or surpasses all primary (health related) and secondary (aesthetic) drinking water standards established by the federal and state regulatory agencies. Test results are summarized and released annually to the public through our Annual Water Quality Report. As a best management practice, EBMUD has implemented an added quality assurance protocol – internal water quality goals that exceed regulatory standards. In addition, the District has been

actively working to reduce the public's exposure to lead in drinking water. On January 4, 2014, the national Safe Drinking Water Act amendment reduced the allowable lead content of drinking water plumbing fixtures from 8 to 0.25 percent lead. The 2011 law was fashioned after the 2010 California lead-free standard, whose language was the result of EBMUD-sponsored legislation (AB 1953). In fiscal year 2017, the District initiated a free customer lead sampling program, enabling customers to sample water at their properties via a District-contracted laboratory. Participation and test results continue to support the high quality of the District's delivered water and confidence in the District.

Renewable Energy

Each year, EBMUD can generate over 400,000 Megawatts of renewable energy via its hydropower, photovoltaic and cogeneration facilities for its own use and sale. The sales of this renewable energy can bring in over \$10 million dollars each year. EBMUD's cogeneration efforts to turn organic wastes into energy were awarded the National Environmental Achievement Award from the National Association of Clean Water Agencies for its innovative and sustainable practices. This Resource Recovery Program at EBMUD's wastewater treatment plant provides 135 percent of the electricity needed to power the plant from renewable energy generated through food scraps, winery waste, fats, oils and grease and other organic waste. This reduces greenhouse gas emissions and provides substantial revenue, helping to keep wastewater rates low.

LONG-TERM INFRASTRUCTURE INVESTMENT

EBMUD continually evaluates its complex infrastructure system and adjusts investments to address the most pressing reliability concerns. Keeping infrastructure in good condition protects the environment and public health. EBMUD is increasing investments to refurbish and replace infrastructure and dedicating more resources to replace and renew pipes, often using new and innovative technologies.

EBMUD recently unveiled its ambitious goal to increase the annual pipeline renewal rate from 10 miles up to 40 miles each year, to ensure reliable water service into the future. In this acceleration effort, Pipeline Rebuild is looking at everything from innovative pipe technologies to improved installation methods. A few years shy of celebrating our centennial anniversary, this is EBMUD's plan to ensure our pipes best serve today's customers and those 100 years from now.

Pipeline Rebuild recently installed a new-to-EBMUD technology known as “Aqua-Pipe” at four sites (Richmond, San Pablo, Walnut Creek and Lafayette) during a pilot phase to explore a trenchless pipeline renewal method that requires less digging and neighborhood disruptions. Through this method, EBMUD inserts a structural liner in the existing pipes, making them like new. This reduces time spent on the job, spoils from the work, and impacts to the community.

Crews also installed 1,800 feet of earthquake-resistant ductile iron pipe in the Kensington Hills, located on the Hayward Fault. This pipe technology is new to EBMUD, but, since the 1970s, has a perfect track record in Japan for surviving powerful tremors. The secret is in the pipe’s flexible joints. During a large earthquake or landslide, the joints can compress, extend and deflect without failing.

In 2017, the District continued a critical \$22 million project to upgrade EBMUD’s largest water treatment plant and to reduce the need for full plant maintenance shutdowns in the future. Serving approximately 120 million gallons of water to 800,000 customers every day, the Orinda Water Treatment Plant is one of six water treatment plants in EBMUD’s service area. In service since 1935, the Orinda plant is the workhorse of EBMUD’s local system and operates continually throughout the year. Power, treatment and chemical systems, along with process monitoring equipment, will all be upgraded.

Infrastructure rehabilitation master plans are continuously updated for all water infrastructure systems including aqueducts, pipelines, reservoirs, pumping plants, rate control stations, regulators and water treatment plants. EBMUD is undertaking studies to determine capital funding for large diameter pipe replacements and extending the life of pipes to maintain the current system and prevent disruptions.

In the coming years, EBMUD will continue to invest in infrastructure while ensuring our services remain affordable. We will continue our efforts to earn the trust and satisfaction of our customers by providing high-quality water and services at a reasonable price.

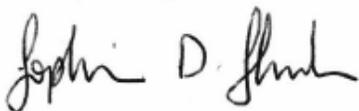


The Government Finance Officers' Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to EBMUD for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2017. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of a state and local government financial report. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized CAFR that satisfied both generally accepted accounting principles and applicable legal requirements. This is the eighth consecutive year that EBMUD has received this award. We are submitting our current CAFR to determine its eligibility for another certificate.

In addition, the District also received the GFOA's Distinguished Budget Presentation Award for its fiscal year 2016-2017 biennial budget document. To qualify, the District's budget document had to be judged proficient as a policy document, a financial plan, an operations guide and a communications device.

I would like to thank the Board of Directors for their continued interest and support towards achieving excellence in financial management. Additionally, this report could not have been accomplished without the hard work and dedication of the entire Finance Department with recognition to the Accounting Division. Special appreciation is extended to, Scott Klein, Controller, Lawrence Fan, Accounting Systems Supervisor, David Siu, Accounting and Financial Systems Analyst, Crystal Zhang, Accounting and Financial Systems Analyst, Melody Wang, Accountant III, and Yenny Coburn, Accountant III. I would also like to thank staff members of other departments for the efforts they put into the preparation of this report.

Respectfully submitted,



Sophia D. Skoda
Director of Finance



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**East Bay Municipal Utility District
California**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morill

Executive Director/CEO

EBMUD has a seven-member Board of Directors publicly elected from wards within the EBMUD service area.

[John A. Coleman](#)

Director Coleman represents EBMUD's Ward No. 2 which is comprised of the cities of Alamo, Lafayette and Walnut Creek, Town of Danville, communities of Blackhawk and Diablo, and portions of San Ramon and Pleasant Hill.

[Andy Katz](#)

Director Katz represents EBMUD's Ward No. 4 which is comprised of the cities of Albany, Berkeley, Emeryville, El Cerrito and Kensington as well as a portion of Oakland.

[Doug A. Linney](#)

Director Linney represents EBMUD's Ward No. 5 which is comprised of the cities of Alameda and San Lorenzo as well as West Oakland and the Oakland Airport Area and a portion of San Leandro.

[Lesia R. McIntosh](#)

Director McIntosh represents EBMUD's Ward No. 1 which is comprised of the cities of Crockett, Hercules, Rodeo and San Pablo; the communities of North Richmond and Selby, as well as portions of Richmond and Pinole.

[Frank G. Mellon](#)

Director Mellon represents EBMUD's Ward No. 7 which is comprised of the town of Castro Valley, the communities of Cherryland and Fairview, as well as portions of San Leandro, Hayward and San Ramon.

[William B. Patterson](#)

Director Patterson represents EBMUD's Ward No. 6 which is comprised of portions of Oakland (East Oakland and south of Park Blvd/5th Ave) to the San Leandro boundary.

[Marguerite Young](#)

Director Young represents EBMUD's Ward No. 3 which is comprised of the cities of Piedmont, Orinda and El Sobrante, Town of Moraga, as well as portions of Oakland, Pinole and Richmond.

BOARD OF DIRECTORS

Lesa R. McIntosh	President
William B. Patterson	Vice President
John A Coleman.....	Director
Andy Katz.....	Director
Doug A Linney	Director
Frank G. Mellon.....	Director
Marguerite Young.....	Director

GENERAL MANAGER Alexander R. Coate

FINANCE DIRECTOR Sophia D. Skoda

CONTROLLER D. Scott Klein

PREPARED Accounting Division of the
Finance Department



Independent Auditor's Report

Management's Discussion and Analysis

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Supplemental Information

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

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INDEPENDENT AUDITOR'S REPORT

Board of Directors
East Bay Municipal Utility District
Oakland, California

Report on Financial Statements

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

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinions

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

Emphasis of Matters

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

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

Other Matters

Required Supplementary Information

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

Other Information

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

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

The Introductory, Statistical and Continuing Disclosure Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

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

Maze + Associates

Pleasant Hill, California
August 27, 2018

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EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

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

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

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

Organization and Business

Overview of the Basic Financial Statements

Financial Analysis

Capital Assets

Debt Administration

Request for Information

ORGANIZATION AND BUSINESS

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

OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

The District's proprietary fund statements include:

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

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

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

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

FINANCIAL ANALYSIS

Financial Highlights

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

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

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

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

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

Operating expense remained stable at \$430 million.

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

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

Financial Position

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

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

Table 1				
Net Position				
Water and Wastewater				
June 30, 2018 and 2017				
(In thousands)				
	<u>2018</u>	<u>2017</u>	<u>Variance</u>	<u>%</u>
Current and other assets	\$ 904,282	967,829	(63,547)	(7)%
Capital assets	4,855,907	4,651,237	204,670	4%
Deferred outflow of resources	169,099	230,903	(61,804)	(27)%
Total assets and deferred outflow	<u>5,929,288</u>	<u>5,849,969</u>	<u>79,319</u>	1%
Current and other liabilities	899,620	880,313	19,307	2%
Long-term liabilities	3,317,300	3,412,637	(95,337)	(3)%
Deferred inflow of resources	82,478	28,636	53,842	188%
Total liabilities and deferred inflow	<u>4,299,398</u>	<u>4,321,586</u>	<u>(22,188)</u>	(1)%
Net position:				
Net investment in capital assets	1,494,381	1,204,366	290,015	24%
Restricted	256,299	259,887	(3,588)	(1)%
Unrestricted	<u>(120,790)</u>	<u>64,130</u>	<u>(184,920)</u>	(288)%
Total net position	<u>\$ 1,629,890</u>	<u>1,528,383</u>	<u>101,507</u>	7%

Net Position				
Water and Wastewater				
June 30, 2017 and 2016				
(In thousands)				
	<u>2017</u>	<u>2016</u>	<u>Variance</u>	<u>%</u>
Current and other assets	\$ 967,829	776,898	190,931	25%
Capital assets	4,651,237	4,489,702	161,535	4%
Deferred outflow of resources	230,903	148,078	82,825	56%
Total assets and deferred outflow	<u>5,849,969</u>	<u>5,414,678</u>	<u>435,291</u>	8%
Current and other liabilities	880,313	729,648	150,665	21%
Long-term liabilities	3,412,637	3,173,637	239,000	8%
Deferred inflow of resources	28,636	119,093	(90,457)	(76)%
Total liabilities and deferred inflow	<u>4,321,586</u>	<u>4,022,378</u>	<u>299,208</u>	7%
Net position:				
Net investment in capital assets	1,204,366	1,249,549	(45,183)	(4)%
Restricted	259,887	272,138	(12,251)	(5)%
Unrestricted	<u>64,130</u>	<u>(129,387)</u>	<u>193,517</u>	(150)%
Total net position	<u>\$ 1,528,383</u>	<u>1,392,300</u>	<u>136,083</u>	10%

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Results of Operations

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

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

Table 2

Changes in Net Position

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 2 (Continued)

Changes in Net Position

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Liquidity

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

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

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

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Cash and Investments by Fund

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

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 4

Cash and Investment by Fund

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

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

Cash and Investment by Fund

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Capital Contributions

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

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

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

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

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

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

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

CAPITAL ASSETS

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

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

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

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

Table 6

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2018 and 2017

(In thousands)

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

Table 6 (Continued)

Capital Assets, Net of Depreciation

Water and Wastewater

June 30, 2017 and 2016

(In thousands)

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

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

This year's major capital expenditures included:

Water System:

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

Wastewater System:

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

DEBT ADMINISTRATION

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

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

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

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

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

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

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

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

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

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

Table 8

Credit Ratings

Water and Wastewater

June 30, 2018

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

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

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

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

EAST BAY MUNICIPAL UTILITY DISTRICT

Management's Discussion and Analysis

June 30, 2018

REQUEST FOR INFORMATION

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

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

	Water System		Wastewater System		Totals	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Current assets:						
Cash and cash equivalents (Note 2)	\$33,261	\$177,417	\$57,952	\$44,173	\$91,213	\$221,590
Investments (Note 2)	407,998	341,719	54,297	56,705	462,295	398,424
Receivables:						
Customer	46,232	42,259	6,093	6,021	52,325	48,280
Interest and other	3,223	4,513	2,901	2,904	6,124	7,417
Materials and supplies	9,901	9,246	-	-	9,901	9,246
Prepaid Insurance	1,269	1,054	248	-	1,517	1,054
Total current assets	501,884	576,208	121,491	109,803	623,375	686,011
Noncurrent assets:						
Restricted cash and investments (Note 2):						
Cash and cash equivalents	9,712	47,449	18	18	9,730	47,467
Investments	40,403	335	-	-	40,403	335
Total restricted cash and investments	50,115	47,784	18	18	50,133	47,802
Other assets:						
Equity in JPA partnership fund (Note 2K)	229,830	233,210	-	-	229,830	233,210
Other	666	531	278	275	944	806
Total other assets	230,496	233,741	278	275	230,774	234,016
Capital assets (Note 3):						
Structures, buildings, and equipment	5,497,734	5,264,539	1,114,555	1,073,495	6,612,289	6,338,034
Less accumulated depreciation	(1,895,161)	(1,793,911)	(463,971)	(441,271)	(2,359,132)	(2,235,182)
Subtotal	3,602,573	3,470,628	650,584	632,224	4,253,157	4,102,852
Land and rights-of-way	65,001	64,508	21,357	21,285	86,358	85,793
Construction in progress	472,446	405,357	43,946	57,235	516,392	462,592
Total capital assets, net	4,140,020	3,940,493	715,887	710,744	4,855,907	4,651,237
Total noncurrent assets	4,420,631	4,222,018	716,183	711,037	5,136,814	4,933,055
Total assets	4,922,515	4,798,226	837,674	820,840	5,760,189	5,619,066
Deferred outflows of resources:						
Accumulated decrease in fair value of hedging derivatives (Note 6)	18,256	24,777	-	-	18,256	24,777
Debt refundings related (Note 11)	25,208	34,801	2,202	3,441	27,410	38,242
Pension related (Note 8)	97,176	143,621	16,202	24,263	113,378	167,884
OPEB related (Note 8)	8,611	-	1,444	-	10,055	-
Total deferred outflows	149,251	203,199	19,848	27,704	169,099	230,903
Total assets and deferred outflows	\$5,071,766	\$5,001,425	\$857,522	\$848,544	\$5,929,288	\$5,849,969

(Continued)

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

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

See accompanying notes to financial statements

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

	Water System		Wastewater System		Total	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Operating revenue:						
Water	\$480,745	\$420,293	-	-	\$480,745	\$420,293
Sewer	-	-	\$86,514	\$81,904	86,514	81,904
Power	6,435	7,807	1,109	900	7,544	8,707
Wet weather facilities charges	-	-	24,293	23,105	24,293	23,105
Total operating revenue	487,180	428,100	111,916	105,909	599,096	534,009
Operating expense:						
Raw water	40,349	37,551	-	-	40,349	37,551
Water treatment and distribution	113,422	113,587	-	-	113,422	113,587
Recreation areas, net	5,682	5,689	-	-	5,682	5,689
Sewer lines and pumping	-	-	13,422	14,611	13,422	14,611
Sewer treatment plant operations	-	-	38,220	35,147	38,220	35,147
Customer accounting and collecting	17,040	17,517	2,394	2,398	19,434	19,915
Financial and risk management	16,943	20,950	575	693	17,518	21,643
Facilities management	5,523	5,177	-	-	5,523	5,177
General administration	49,926	37,158	10,110	6,442	60,036	43,600
Pension expense	(7,494)	6,221	(2,689)	(27)	(10,183)	6,194
OPEB expense	(945)	-	(208)	-	(1,153)	-
Depreciation on utility plant and vehicle	105,375	102,561	22,701	22,666	128,076	125,227
Total operating expense	345,821	346,411	84,525	81,930	430,346	428,341
Net operating income	141,359	81,689	27,391	23,979	168,750	105,668
Nonoperating income (expense):						
Investment income	6,124	2,111	1,007	427	7,131	2,538
Taxes and subventions	34,706	31,971	6,774	7,780	41,480	39,751
Interest and amortization of bond expenses, net of capitalized interest of \$9,336 and \$10,358 for the Water System and \$420 and \$985 for the Wastewater System in 2018 and 2017, respectively	(103,931)	(92,855)	(16,788)	(16,887)	(120,719)	(109,742)
Increase (decrease) of equity in JPA partnership fund	(3,380)	(3,759)	-	-	(3,380)	(3,759)
Other income	11,452	12,682	5,968	4,166	17,420	16,848
Total nonoperating income (expense), net	(55,029)	(49,850)	(3,039)	(4,514)	(58,068)	(54,364)
Income (loss) before capital contributions	86,330	31,839	24,352	19,465	110,682	51,304
Capital contributions	87,563	75,911	11,434	8,868	98,997	84,779
Change in net position	173,893	107,750	35,786	28,333	209,679	136,083
Total net position - beginning	1,239,163	1,131,413	289,220	260,887	1,528,383	1,392,300
Prior period adjustment per implementation of GASB 75	(92,277)	-	(15,895)	-	(108,172)	-
Total net position - ending	\$1,320,779	\$1,239,163	\$309,111	\$289,220	\$1,629,890	\$1,528,383

See accompanying notes to financial statements

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

	Water System		Wastewater System		Total	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Cash flows from operating activities						
Cash received from customers	\$483,207	\$431,882	\$111,843	\$105,581	\$595,050	\$537,463
Cash received from other income	11,452	12,682	5,969	4,166	17,421	16,848
Cash payments for judgments and claims	(4,981)	(7,668)	(207)	(273)	(5,188)	(7,941)
Cash payments to suppliers for goods and services	(23,379)	(37,167)	(32,397)	(28,699)	(55,776)	(65,866)
Cash payments to employees for services	(179,482)	(182,470)	(29,878)	(30,826)	(209,360)	(213,296)
Net cash provided by operating activities	286,817	217,259	55,330	49,949	342,147	267,208
Cash flows from noncapital financing activities:						
Tax receipts	34,706	31,971	6,774	7,780	41,480	39,751
Net cash provided by financing activities	34,706	31,971	6,774	7,780	41,480	39,751
Capital and related financing activities:						
Capital contributions	87,563	75,911	11,434	8,868	98,997	84,779
Proceeds from advances for construction	2,539	10,567	-	-	2,539	10,567
Proceeds from sale of capital assets	2,307	1,749	-	-	2,307	1,749
Net proceeds and premiums from sale of bonds	-	601,672	-	83,245	-	684,917
Acquisition and construction of capital assets	(322,725)	(266,255)	(30,041)	(41,637)	(352,766)	(307,892)
Principal retirement on long-term debt and commercial paper	(69,095)	(399,044)	(16,251)	(77,062)	(85,346)	(476,106)
Amount paid to refunding bond escrow agent	-	(2)	-	-	-	(2)
Costs and discounts from issuance on long-term debt	-	(1,498)	-	(592)	-	(2,090)
Interest paid on long-term debt	(102,509)	(93,376)	(16,721)	(17,051)	(119,230)	(110,427)
Net cash provided by (used in) capital and related financing activities	(401,920)	(70,276)	(51,579)	(44,229)	(453,499)	(114,505)
Cash flows from investing activities:						
Proceeds from securities	227,560	186,184	33,878	32,329	261,438	218,513
Expenditures from purchases of securities	(333,908)	(300,692)	(31,470)	(48,139)	(365,378)	(348,831)
Interest received on investments	4,852	1,825	846	396	5,698	2,221
Net cash provided by (used in) investing activities	(101,496)	(112,683)	3,254	(15,414)	(98,242)	(128,097)
Net increase (decrease) in cash and cash equivalents	(181,893)	66,271	13,779	(1,914)	(168,114)	64,357
Cash and cash equivalents:						
Beginning of year	224,866	158,595	44,191	46,105	269,057	204,700
End of period	\$42,973	\$224,866	\$57,970	\$44,191	\$100,943	\$269,057

(Continued)

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

	Water System		Wastewater System		Total	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Net operating income	\$141,359	\$81,689	\$27,391	\$23,979	\$168,750	\$105,668
Adjustments to reconcile net operating income to net cash provided by operating activities:						
Pension expense	(7,494)	6,221	(2,689)	(27)	(10,183)	6,194
OPEB expense	(945)	-	(208)	-	(1,153)	-
Depreciation on utility plant and vehicle	105,375	102,561	22,701	22,666	128,076	125,227
Depreciation within recreation areas	1,518	1,335	-	-	1,518	1,335
Amortization	14,000	16,276	2,197	1,769	16,197	18,045
Other income	11,452	12,682	5,968	4,166	17,420	16,848
Changes in assets/liabilities:						
Materials and supplies	(655)	(1,162)	-	-	(655)	(1,162)
Prepaid insurance	(215)	46	(248)	-	(463)	46
Customer receivables	(3,973)	3,782	(72)	(328)	(4,045)	3,454
Other assets	2,427	(1,300)	161	(736)	2,588	(2,036)
OPEB liability	-	1,560	-	268	-	1,828
Reserve for claims	3,720	785	(173)	(1,108)	3,547	(323)
Accounts payable and accrued expenses	20,248	(7,216)	302	(700)	20,550	(7,916)
Net cash provided by operating activities	\$286,817	\$217,259	\$55,330	\$49,949	\$342,147	\$267,208
Schedule of Non-Cash Activities						
Change in Fair Value	(\$3,363)	(\$1,546)	(\$396)	(\$186)	(\$3,759)	(\$1,732)

Reconciliation of net operating income to net cash provided by operating activities:
Net operating income
Adjustments to reconcile net operating income to net cash provided by operating activities:
Pension expense
OPEB expense
Depreciation on utility plant and vehicle
Depreciation within recreation areas
Amortization
Other income
Changes in assets/liabilities:
Materials and supplies
Prepaid insurance
Customer receivables
Other assets
OPEB liability
Reserve for claims
Accounts payable and accrued expenses

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

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

See accompanying notes to financial statements

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

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

See accompanying notes to financial statements

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

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Description of the Primary Government

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

B. Description of the Component Unit

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

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

C. Basis of Presentation

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

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

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

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

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

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

Additionally, the District reports the following fiduciary fund:

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

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

D. Basis of Accounting

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

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

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

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

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

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

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

- Unrestricted – This component of net position consists of net assets that do not meet the definition of “restricted” or “net investment in capital assets.”

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

E. Use of Estimates and Assumptions

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

F. Capital Assets

Utility Plant – at Original Cost

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

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

Water Supply Management Program

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

Preliminary Survey and Investigation Costs

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

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

Contract Water Rights

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

G. Depreciation

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

H. Restricted Assets

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

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

Operating Reserves:

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

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

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

Capital Reserves:

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

Restricted funds include the following:

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

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

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

I. Deferred Amount on Bond Refundings

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

J. Cash and Cash Equivalents

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

K. District Investments

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

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

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

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

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

L. Retirement System Investments

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

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

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

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

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

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

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

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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

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

M. Material and Supplies

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

N. Compensated Absences

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

The changes in compensated absences were as follows:

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

O. Revenue

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

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

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

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

P. Interest Rate Swap

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

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

Q. Deferred Outflows/Inflows of Resources

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

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

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

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

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

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

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

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

S. Fair Value Measurements

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

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

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

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

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

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

A. Classification

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

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

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

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

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

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

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

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

The District does not enter into reverse repurchase agreements.

C. District Enterprise Fund Investments Authorized by Debt Agreements

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

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

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

D. Employees Retirement System Authorized Investment Strategy

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

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

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

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

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

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

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

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 "BXI Index") replication strategy and/or active non-replication strategies and their underlying domestic equity portfolios.

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

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

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

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

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

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

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

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

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

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

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

E. Fair Value Hierarchy

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

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

District Enterprise Funds:

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

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

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

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

System Pension Trust Fund:

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

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

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

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

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

F. Interest Rate Risk

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

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

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

District Enterprise Funds:

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

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

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

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

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

System Pension Trust Fund:

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

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

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

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

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

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

G. Credit Risk

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

District Enterprise Funds:

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

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

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

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

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NOTE 2 - CASH AND INVESTMENTS (Continued)

System Pension Trust Fund:

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

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

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

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

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

H. Concentration Risk

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

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

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

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

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

System Pension Trust Fund:

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

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

I. Foreign Currency Risk

System Pension Trust Fund:

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

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

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

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

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

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

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

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

J. Custodial Credit Risk

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

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

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

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

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

K. Joint Powers Authority

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

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

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

NOTE 3 – CAPITAL ASSETS

A. Summary

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

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

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

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

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

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

NOTE 3 – CAPITAL ASSETS (Continued)

B. Additions and Retirements

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

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

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

NOTE 3 – CAPITAL ASSETS (Continued)

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

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

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

NOTE 3 – CAPITAL ASSETS (Continued)

C. Construction in Progress

Construction in Progress in fiscal 2017-2018 comprises:

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

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

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

NOTE 3 – CAPITAL ASSETS (Continued)

Construction in Progress in fiscal 2016-2017 comprises:

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

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

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

NOTE 4 – ACCOUNTS PAYABLE & ACCRUED EXPENSES

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

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

NOTE 5 – EXTENDABLE COMMERCIAL PAPER NOTES

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

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

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

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

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

NOTE 5 – COMMERCIAL PAPER NOTES (Continued)

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

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

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

NOTE 6 – LONG-TERM DEBT

A. Composition and Changes

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

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

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

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

NOTE 6 - LONG TERM DEBT (Continued)

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
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NOTE 6 - LONG TERM DEBT (Continued)

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
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NOTE 6 - LONG TERM DEBT (Continued)

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
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NOTE 6 - LONG TERM DEBT (Continued)

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

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

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

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

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

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

C. Debt Service Requirements

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
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NOTE 6 - LONG TERM DEBT (Continued)

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

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

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

D. Prior-Year Defeasances

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

E. Variable Rate Debt

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
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NOTE 6 - LONG TERM DEBT (Continued)

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

F. Interest Rate Swap Agreements

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

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
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NOTE 6 - LONG TERM DEBT (Continued)

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

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

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

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

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

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

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

NOTE 6 – LONG-TERM DEBT (Continued)

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

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

NOTE 7 – NET POSITION

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

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

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

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

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

A. Description

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

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

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

B. Retirement Benefits and Allowances

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

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

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

**EAST BAY MUNICIPAL UTILITY DISTRICT
NOTES TO BASIC FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
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NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

C. Post-employment Healthcare Cost

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

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

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

D. Actuarial Assumptions and Funding Policy

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

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

District contributions for the year ended June 30, 2018 are as follows:

1980 Plan:	
Pension plan:	
Employer service cost	15.57%
Toward unfunded pension liability	22.35%
Other post-employment benefits:	
Employer normal cost	1.16%
Unfunded actuarial accrued liability	4.10%
2013 Plan:	
Pension plan:	
Employer service cost	8.95%
Toward unfunded pension liability	22.35%
Other post-employment benefits:	
Employer normal cost	0.76%
Unfunded actuarial accrued liability	4.10%

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

1980 Plan:	
Pension plan:	
Employer service cost	15.56%
Toward unfunded pension liability	21.10%
Other post-employment benefits:	
Employer normal cost	1.14%
Unfunded actuarial accrued liability	4.18%
2013 Plan:	
Pension plan:	
Employer service cost	8.81%
Toward unfunded pension liability	21.10%
Other post-employment benefits:	
Employer normal cost	0.74%
Unfunded actuarial accrued liability	4.18%

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

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

Significant assumptions used to compute contribution requirements from the latest unaudited actuarial are as follows:

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

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

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

E. Contributions Required and Contributions Made

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

	2018		2017	
	Pension	Healthcare Benefit Plan	Totals	
Regular contributions:				
District contributions	\$71,220	\$9,875	\$81,095	\$76,860
Member contributions	16,807	177	16,984	15,945
	88,027	10,052	98,079	92,805
Other contributions:				
Member buybacks	53	42	95	73
	\$88,080	\$10,094	\$98,174	\$92,878

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

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

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

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

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

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

F. Schedule of Employer Contributions

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

Schedule of Employer’s Contributions:

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

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

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NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

Health Insurance Benefit Plan:

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

Net OPEB obligation at June 30, 2015		\$23,651
Annual required contribution (ARC)	\$11,590	
Interest on net OPEB obligation	1,671	
Adjustments to the ARC	<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>
Net OPEB obligation at June 30, 2017		<u><u>\$27,150</u></u>

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

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

G. Net Pension Liability

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

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

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

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

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

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

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

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

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

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

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

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and projected arithmetic real rates of return, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption for each major asset class are summarized below:

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

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

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

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

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

H. Net OPEB Liability

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

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

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

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

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

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

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NOTE 8 – EMPLOYEES’ RETIREMENT PLAN (Continued)

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

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

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

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

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

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

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

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

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

** The total employer contributions for estimated implicit subsidy

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

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

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

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

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

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

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

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

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

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

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

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

I. Public Employees’ Pension Reform Act (PEPRA)

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

The table below provides the details of the new provisions.

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

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

NOTE 9 – RISK MANAGEMENT

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

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

Selected other coverages are:

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

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

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

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

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

NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES

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

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

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

NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)

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

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

NOTE 10 – KNOWN ENVIRONMENTAL LIABILITIES (Continued)

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

NOTE 11 - CONTINGENT LIABILITIES

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

NOTE 12 – COMMITMENTS AND CONTINGENCIES

Central Valley Project

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

REQUIRED SUPPLEMENTAL INFORMATION

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

(1) Pension Plan

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

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

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

Unaudited

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

(2) Pension Plan

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

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

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

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

(3) Pension Plan

Schedule of Employer's Contributions (in thousands):

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

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

Unaudited

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

(4) Pension Plan

Schedule of Investment Returns:

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

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

(5) Post-Employment Healthcare Plan

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

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

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

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

Unaudited

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

(6) Post-Employment Healthcare Plan

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

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

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

(7) Post-Employment Healthcare Plan

Schedule of Employer's Contributions (in thousands):

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

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

Unaudited

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

(8) Notes to Required Supplementary Information

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

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

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

Unaudited.

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

(8) Notes to Required Supplementary Information (Continued)

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

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

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

Unaudited.

SUPPLEMENTAL INFORMATION

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

June 30, 2018

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

(DOLLARS IN THOUSANDS)

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

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

For the Year Ended June 30, 2018

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

(DOLLARS IN THOUSANDS)

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

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

Board of Directors
East Bay Municipal Utility District
Oakland, California

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

Internal Control Over Financial Reporting

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

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

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

Compliance and Other Matters

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

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

Purpose of this Report

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

Maze + Associates

Pleasant Hill, California
August 27, 2018

Financial Trends

These schedules contain trend information to help understand how the District's financial performance and well-being have changed over time.

Revenue Capacity

These schedules contain information to help the reader assess the District's revenue sources and rate structures.

Debt Capacity

These schedules contain information to help the reader assess the affordability of the District's current levels of outstanding debt and the District's ability to issue additional debt in the future.

Demographic and Economic Information

These schedules offer demographic, economic and District indicators to help the reader understand the environment within which the District financial activities take place.

Operating Information

These schedules contain service and infrastructure data to help the reader understand how the information in the District's financial report relates to the services the District provides and the activities it performs.

Financial Trends Section

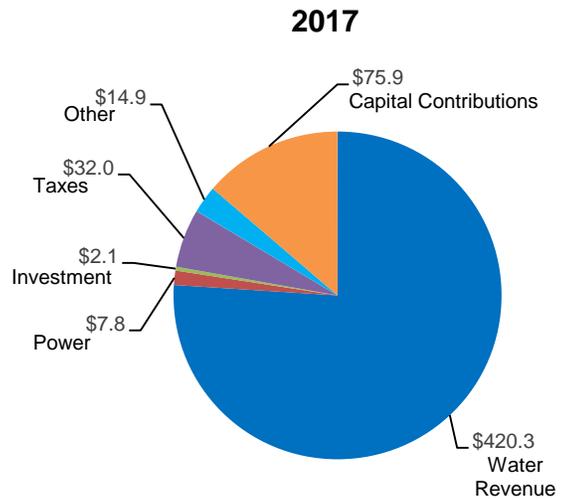
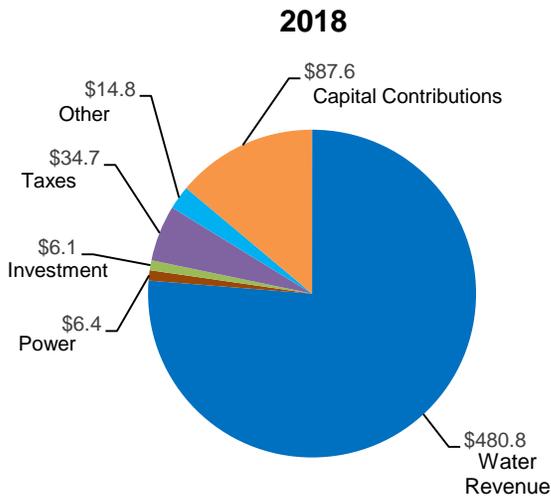
- Comparative Highlights
- Ten-Year Summary of Financial Data
- Changes in Net Position
- Net Position by Component

**Financial Trends
Comparative Highlights**

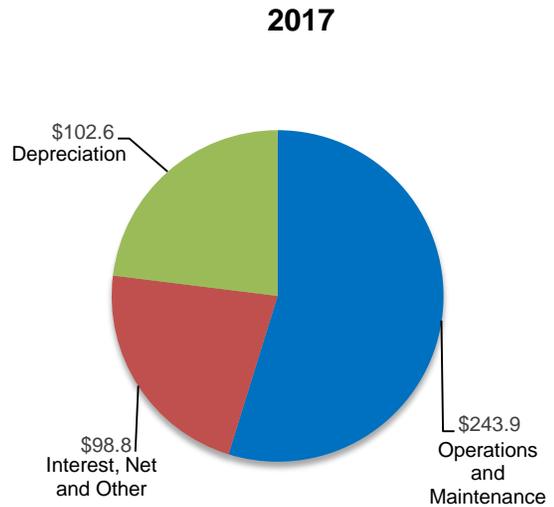
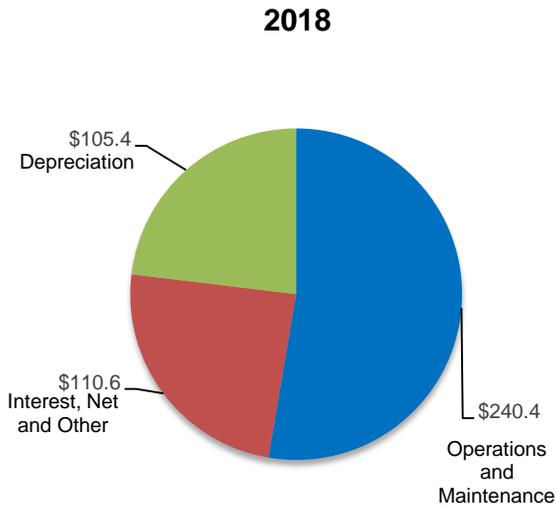
Fiscal Years 2018 and 2017

Water System

**What We Received:
(In Millions)**



**How It Was Used:
(In Millions)**



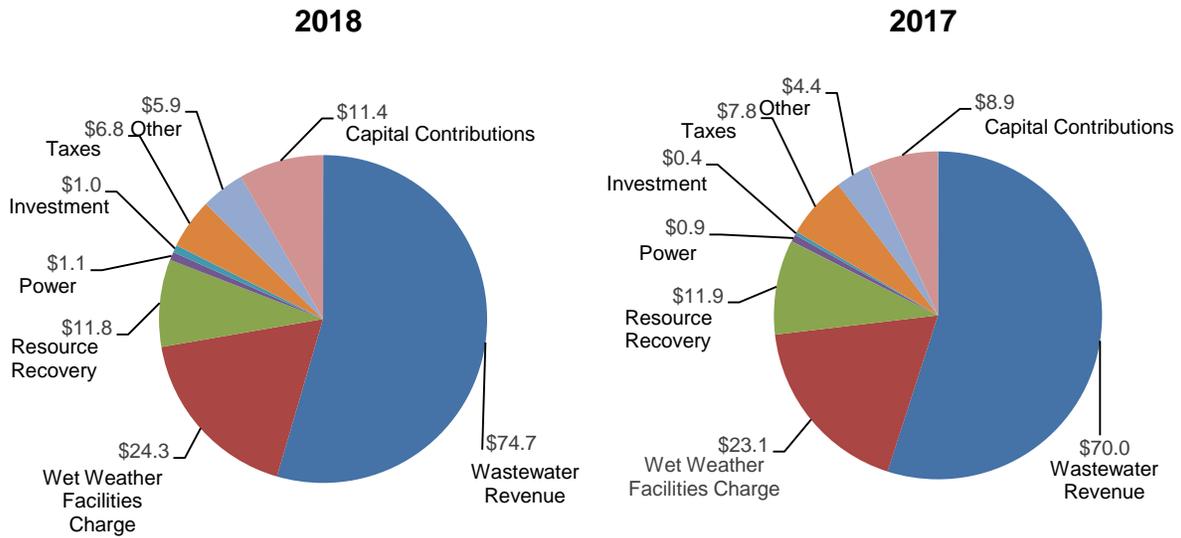
Sources: Financial Statements

Financial Trends
Comparative Highlights(continued)

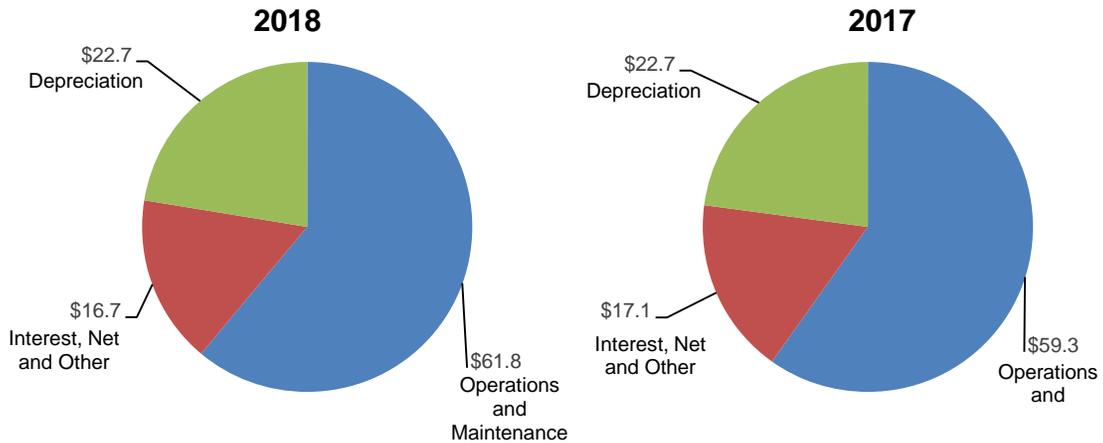
Fiscal Years 2018 and 2017

Wastewater System

What We Received:
(In Millions)



How It Was Used:
(In Millions)



Sources: Financial Statements

Financial Trends
Ten-Year Summary of Financial Data

Fiscal Years 2009 to 2018
(in Millions)

	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010*	2009*
Water System										
Revenues										
Water Revenue ⁽⁴⁾	\$ 480.8	\$ 420.3	\$ 421.2	\$ 362.1	\$ 367.6	\$ 336.1	\$ 306.2	\$ 283.6	\$ 271.0	\$ 287.3
Taxes	34.7	32.0	29.9	27.9	25.5	26.4	23.4	22.2	22.9	23.4
Investment	6.1	2.1	2.2	3.6	2.2	2.6	4.7	5.3	10.8	25.6
Power	6.4	7.8	3.5	2.2	1.4	3.6	4.6	8.1	6.2	4.3
Capital Contributions	87.6	75.9	60.8	71.5	49.0	55.8	45.2	45.8	39.9	38.3
Other ⁽¹⁾	14.8	14.9	14.0	15.3	19.9	12.8	16.2	68.3	7.7	6.2
Total Revenues	630.3	552.9	531.6	482.6	465.6	437.3	400.3	433.3	358.5	385.1
Expenses										
Operations and Maintenance	240.4	243.9	242.0	211.6	237.3	223.0	215.2	211.2	206.5	224.5
Depreciation	105.4	102.6	97.3	94.1	90.4	87.3	83.7	76.2	74.5	71.5
Interest, Net and Other ⁽²⁾⁽³⁾	110.6	98.8	98.3	101.2	116.3	101.3	133.2	146.5	69.9	81.8
Total Expenses	456.4	445.2	437.6	406.9	444.0	411.6	432.1	433.9	350.9	377.8
Changes in Net Position	\$ 173.9	\$ 107.8	\$ 94.0	\$ 75.7	\$ 21.6	\$ 25.7	\$ (31.8)	\$ (0.6)	\$ 7.6	\$ 7.3

* Restated to meet current formatting.

⁽¹⁾ Other revenue in 2011 includes receipts of \$53 million from Chevron for the RARE facilities.

⁽²⁾ Other expense in 2011 includes the \$53 million sale of the RARE facilities to Chevron.

⁽³⁾ Other expense in 2012 includes \$25 million GASB 64 expense due to changing SWAP counter parties. See Note 6F.

⁽⁴⁾ Water Revenue increased in 2018 due to a 8.9% increase in billed water consumption, and a 9.25% water rate increase offset by no drought surcharge received in 2018.

Sources: Financial Statements

Financial Trends
Ten-Year Summary of Financial Data

Fiscal Years 2009 to 2018
(in Millions)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Fiscal Year Ended June 30										
Wastewater System										
Revenues										
Wastewater Revenue ⁽¹⁾	\$ 74.7	\$ 70.0	\$ 65.9	\$ 65.1	\$ 61.7	\$ 58.8	\$ 55.2	\$ 50.9	\$ 48.8	\$ 47.1
Wet Weather										
Facilities Charges	24.3	23.1	21.9	21.8	19.4	18.3	17.2	16.1	15.3	14.3
Resource Recovery	11.8	11.9	11.6	11.3	10.6	9.3	9.1	9.4	7.6	7.7
Power	1.1	0.9	1.3	1.1	1.1	0.7	0.3	-	-	-
Taxes	6.8	7.8	7.9	8.5	9.9	9.4	8.3	7.4	7.4	7.4
Investment	1.0	0.4	0.5	0.2	0.3	2.6	0.6	1.3	0.8	3.1
Capital Contributions	11.4	8.9	4.2	3.1	1.2	1.6	2.8	3.1	2.9	9.0
Other	5.9	4.4	3.9	4.5	5.2	3.4	3.1	2.4	1.2	0.9
Total Revenues	137.0	127.3	117.2	115.6	109.4	104.1	96.6	90.6	84.0	89.5
Expenses										
Operations and Maintenance	61.8	59.3	53.1	54.8	56.0	52.5	52.5	51.8	46.2	50.1
Depreciation	22.7	22.7	22.5	24.2	22.2	21.9	19.7	19.1	19.4	18.3
Interest, Net and Other	16.7	17.1	16.9	25.1	17.6	18.5	19.9	16.0	13.0	13.6
Total Expenses	101.2	99.0	92.5	104.1	95.8	92.9	92.1	86.9	78.6	82.0
Changes in Net Position	\$ 35.8	\$ 28.3	\$ 24.7	\$ 11.5	\$ 13.6	\$ 11.2	\$ 4.5	\$ 3.7	\$ 5.4	\$ 7.5

⁽¹⁾ Wastewater revenue increased in 2018 due to a 5% wastewater rate increase.

**Financial Trends
Changes in Net Position**

Fiscal Years 2009 to 2018
(In Millions)

	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Operating Revenues										
Charges for services:										
Water ⁽¹⁾	\$ 480.8	\$ 420.3	\$ 421.2	\$ 362.1	\$ 367.6	\$ 336.1	\$ 306.2	\$ 283.6	\$ 271.0	\$ 287.3
Wastewater ⁽²⁾	110.8	105.0	99.4	98.2	91.7	86.4	81.5	76.4	71.7	69.1
Power	7.6	8.7	4.8	3.3	2.5	4.3	4.9	8.1	6.2	4.3
Total Operating Revenues	599.1	534.0	525.4	463.6	461.8	426.8	392.6	368.1	348.9	360.7
Operating Expenses										
Water	345.8	346.4	339.3	305.7	327.8	310.3	299.0	287.4	281.1	296.0
Wastewater	84.5	81.9	75.6	79.0	78.3	74.4	72.2	70.9	65.5	68.4
Total Operating Expenses	430.3	428.3	414.9	384.7	406.1	384.7	371.2	358.3	346.6	364.4
Operating Activities	168.8	105.7	110.5	78.9	55.7	42.1	21.4	9.8	2.3	(3.7)

⁽¹⁾ Water Revenue increased in 2018 due to a 8.9% increase in billed water consumption, and a 9.25% water rate increase offset by no drought surcharge received in 2018.

⁽²⁾ Wastewater revenue increased in 2018 due to a 5% wastewater rate increase.

Sources: Financial Statements

Financial Trends

Changes in Net Position (continued)

Fiscal Years 2009 to 2018
(In Millions)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Fiscal Year Ended June 30										
General Revenues and Other Changes in Net Position										
Non-Operating Activities										
Investment income	\$ 7.1	\$ 2.5	\$ 2.7	\$ 3.8	\$ 2.5	\$ 5.2	\$ 5.2	\$ 6.6	\$ 11.6	\$ 28.6
Taxes and subventions	41.5	39.8	37.8	36.4	35.4	35.8	31.7	29.6	30.3	30.8
Interest and amortization of bond expenses	(120.7)	(109.7)	(109.3)	(124.3)	(121.1)	(116.3)	(121.3)	(105.8)	(80.9)	(92.3)
Other income (expense)	14.0	13.0	12.0	17.8	12.4	12.7	(12.3)	14.0	6.9	4.1
Capital grants and contributions	99.0	84.8	65.0	74.6	50.2	57.4	48.0	48.9	42.8	47.3
Total Non-Operating Activities	40.9	30.4	8.1	8.3	(20.6)	(5.2)	(48.7)	(6.7)	10.7	18.5
Changes in Net Position⁽¹⁾	\$ 209.7	\$ 136.1	\$ 118.6	\$ 87.2	\$ 35.1	\$ 36.9	\$ (27.3)	\$ 3.1	\$ 13.0	\$ 14.8

⁽¹⁾ Fiscal year 2015 of \$87.2 is for operating items only and does not include the GASB 68 adjustment. See Note 8 in the financial statements for details. Fiscal year 2012 of \$(27.3) is for operating items only and does not include the GASB 65 adjustment. See Note 6G in the financial statements for details

Sources: Financial Statements

Revenue Capacity Section

- Ten-Year Summary of Revenue by Source
- Rate History
- Ten-Year Summary of Net Revenue and Debt Service Coverage

**Revenue Capacity
Ten-Year Summary of Revenue by Source**

Fiscal Years 2009 to 2018

Water System
(In Millions)

	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Water ⁽²⁾	\$480.8	\$420.3	\$421.2	\$362.1	\$367.6	\$336.1	\$306.2	\$283.6	\$271.0	\$287.3
Taxes	34.7	32.0	29.9	27.9	25.5	26.4	23.4	22.2	22.9	23.4
Interest	6.1	2.1	2.2	3.5	1.7	3.7	6.4	5.7	9.7	24.5
Power	6.4	7.8	3.5	2.2	1.4	3.6	4.6	8.1	6.2	4.3
Rental & Other ⁽¹⁾	14.8	14.9	14.0	15.4	20.4	11.7	14.5	67.9	7.0	4.1
Total	\$542.8	\$477.0	\$470.8	\$411.1	\$416.6	\$381.5	\$355.1	\$387.5	\$316.8	\$343.6

⁽¹⁾ Includes revenue of \$53 million from the sale of the RARE facilities to Chevron in 2011 and \$6 million from the sale of land in 2014.

⁽²⁾ Water Revenue increased in 2018 due to a 8.9% increase in billed water consumption, and a 9.25% water rate increase offset by no drought surcharge received in 2018.

Note: Interest is exclusive of the change in fair market value of investments in the year, which was included in Rental & Other on this page.

Sources: Financial Statements

**Revenue Capacity
Ten-Year Summary of Revenue by Source**

Fiscal Years 2009 to 2018

Wastewater System
(In Millions)

	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Wastewater ⁽¹⁾	\$ 74.7	\$ 70.0	\$ 65.9	\$ 65.1	\$ 61.7	\$ 58.8	\$ 55.2	\$ 50.9	\$ 48.8	\$ 47.1
Wet Weather Facilities	24.3	23.1	21.9	21.8	19.4	18.3	17.2	16.1	15.3	14.3
Resource Recovery	11.8	11.9	11.6	11.3	10.6	9.3	9.1	9.4	7.6	7.7
Power	1.1	0.9	1.3	1.1	1.1	0.7	0.3	-	-	-
Taxes	6.8	7.8	7.9	8.5	9.9	9.4	8.3	7.4	7.4	7.4
Interest	1.0	0.4	0.5	0.3	0.2	0.9	1.7	2.0	1.2	2.9
Other	5.9	4.4	3.9	4.4	5.3	5.0	2.1	1.6	0.6	1.2
Total	\$ 125.6	\$ 118.5	\$ 113.0	\$ 112.5	\$ 108.2	\$ 102.4	\$ 93.9	\$ 87.4	\$ 80.9	\$ 80.6

⁽¹⁾ Wastewater revenue increased in 2018 due to a 5% wastewater rate increase.

Note: Interest is exclusive of the change in fair market value of investments in the year, which was included in Other on this page.

Sources: Financial Statements

**Revenue Capacity
Rate History**

Fiscal Years 2009 to 2018

Fiscal Year	Water		Wastewater	
	Monthly Base Rate	Rate per 748 (1ccf) Gallons	Monthly Base Rate	Rate per 748 (1ccf) Gallons
2009	9.53	1.82	10.02	0.53
2010	10.13	2.00	10.42	0.56
2011	10.89	2.15	10.95	0.59
2012	11.54	2.28	11.61	0.63
2013	12.23	2.42	12.30	0.66
2014	13.42	2.66	13.18	0.73
2015	14.69	2.91	14.33	0.79
2016	19.34	2.95	12.57	1.04
2017	20.69	3.16	13.19	1.09
2018	22.60	3.45	13.85	1.14

Notes: Rates are based on a 5/8" meter, which is the standard household meter size.

Revenue Capacity
Ten-Year Summary of Net Revenue and Debt Service Coverage

Fiscal Years 2009 to 2018

Water System

(In Millions)

Fiscal Year	Total Revenue ⁽¹⁾	Operations & Maintenance Expense ⁽²⁾	Net Revenue Available for Debt Service	Debt Service	Coverage Ratio
2009*	353.8	176.2	177.6	121.3	1.46
2010*	351.7	156.1	195.6	126.6	1.54
2011*	374.7	159.5	215.2	143.7	1.50
2012*	381.4	174.4	207.0	130.7	1.58
2013	399.4	170.8	228.6	133.7	1.71
2014	398.6	188.2	210.4	126.4	1.66
2015	425.1	182.9	242.2	145.7	1.66
2016	480.3	208.8	271.5	164.2	1.65
2017	497.8	187.9	309.9	165.6	1.87
2018	579.2	198.3	380.9	177.2	2.15

* Restated to match current format which includes capacity fees

⁽¹⁾ Gross Revenues include operating revenue, investment earnings, facilities reserve charges, grant revenues, rent and other revenues, and rate stabilization fund transfers.

⁽²⁾ Operating & Maintenance Costs include operating expenses and before depreciation, amortization, debt service, pension expenses and expenses paid with property tax revenues.

Sources: Financial Statements and Official Statements

Revenue Capacity

Ten-Year Summary of Net Revenue and Debt Service Coverage

Fiscal Years 2009 to 2018

Wastewater System

(In Millions)

Fiscal Year	Total Revenue ⁽¹⁾	Operations & Maintenance Expense ⁽²⁾	Net Revenue Available for Debt Service	Debt Service	Coverage Ratio
2009*	74.6	44.6	30.0	20.4	1.47
2010*	74.7	41.3	33.4	19.6	1.70
2011*	82.3	46.3	36.0	21.4	1.68
2012	88.7	48.8	39.9	26.4	1.51
2013	92.0	47.0	45.0	28.3	1.59
2014	96.5	50.8	45.7	28.6	1.60
2015	100.3	51.4	48.9	28.0	1.75
2016	108.1	50.7	57.4	29.1	1.98
2017	118.9	53.6	65.3	29.1	2.24
2018 ⁽³⁾	127.9	57.2	70.7	26.7	2.65

* Restated to match current format which includes capacity fees

⁽¹⁾ Gross Revenues include operating revenue, investment earnings, facilities reserve charges, capacity fees, grant revenues, rent and other revenues, and rate stabilization fund transfers.

⁽²⁾ Operating & Maintenance Costs include operating expenses and before depreciation, amortization, debt service, pension expenses and expenses paid with property tax revenues.

⁽³⁾ In accordance with amendments to the bond indenture, commencing in fiscal year 2018 the BABs interest subsidy payments received by the District are treated as an offset to interest paid by the District on the Series 2010B revenue bonds. The MD&A section cites a preliminary coverage ratio for fiscal year 2018 that applies the previous methodology under which the BABs subsidy is treated as revenue.

Debt Capacity Section

- Debt Ratings
- Outstanding Debt by Type and per Account
- Authorized but Unissued Revenue Bonds and Outstanding Short-Term Debt
- Ratio of Net General Obligation Bonded Debt to Annual Billings and Net General Bonded Debt per Account
- Direct and Overlapping Debt
- Summary of Debt Outstanding

**Debt Capacity
Debt Ratings**

June 30, 2018

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

Sources: Financial Statements

Debt Capacity
Outstanding Debt by Type and per Account

Fiscal Years 2009 to 2018

Water System

(In thousands)

Fiscal Year	General Obligation Bonds ⁽¹⁾	Revenue Bonds ⁽¹⁾	Loans Payable ⁽¹⁾	Commercial Paper Notes ⁽¹⁾	Total Outstanding Debt	Accounts ⁽²⁾	Total Outstanding Debt Per Account
2009	\$ -	\$ 1,899,360	\$ 32,769	\$ 315,300	\$ 2,247,429	\$ 382	\$ 5.88
2010	-	2,354,095	29,028	290,300	2,673,423	382	7.00
2011	-	2,314,425	26,501	312,900	2,653,826	383	6.93
2012	-	2,273,090	17,970	312,900	2,603,960	378	6.89
2013	-	2,210,830	17,002	372,900	2,600,732	379	6.86
2014	-	2,235,960	16,011	359,800	2,611,771	381	6.86
2015	-	2,319,730	14,996	359,800	2,694,526	382	7.05
2016	-	2,271,510	13,956	359,800	2,645,266	382	6.92
2017	-	2,417,730	12,891	359,800	2,790,421	383	7.29
2018	-	2,359,895	14,060	359,800	2,733,755	383	7.14

Wastewater System

(In thousands)

Fiscal Year	General Obligation Bonds ⁽¹⁾	Revenue Bonds ⁽¹⁾	Loans Payable ⁽¹⁾	Commercial Paper Notes ⁽¹⁾	Total Outstanding Debt	Accounts ⁽²⁾	Total Outstanding Debt Per Account
2009	\$ 29,785	\$ 305,165	\$ 25,338	\$ 15,000	\$ 375,288	\$ 176	\$ 2.13
2010	27,255	298,215	20,652	15,000	361,122	176	2.05
2011	24,545	449,680	-	15,000	489,225	177	2.76
2012	21,650	440,085	-	15,000	476,735	174	2.74
2013	18,555	430,160	-	15,000	463,715	175	2.65
2014	14,160	419,880	-	15,000	449,040	176	2.55
2015	10,910	397,965	-	15,000	423,875	176	2.41
2016	7,345	388,530	-	15,000	410,875	176	2.33
2017	3,515	390,110	-	15,000	408,625	177	2.31
2018	-	380,075	-	15,000	395,075	177	2.23

Source: ⁽¹⁾ Financial Summary

⁽²⁾ Customer Information System

Debt Capacity
Authorized but Unissued Revenue Bonds
and Outstanding Short-Term Debt

As of June 30, 2018

(In Thousands)

Water System

Authorized but unissued revenue bonds	\$	764,230
Outstanding short-term debt (due within one year)	\$	60,090

Wastewater System

Authorized but unissued revenue bonds	\$	186,025
Outstanding short-term debt (due within one year)	\$	10,370

Debt Capacity

**Ratio of Net General Obligation Bonded Debt to Annual Billings
and Net General Bonded Debt per Account**

Fiscal Years 2009 to 2018
(In Thousands)

Water System					
Fiscal Year	Accounts ⁽¹⁾	General Obligation Bonded Debt ⁽²⁾	General Bonded Debt Per Account	Annual Billings ⁽²⁾	Percentage of General Bonded Debt To Annual Billings
2009	382	\$ -	\$ -	\$ 287,313	0.00%
2010	382	-	-	271,022	0.00%
2011	383	-	-	283,644	0.00%
2012	378	-	-	306,228	0.00%
2013	379	-	-	336,066	0.00%
2014	381	-	-	367,547	0.00%
2015	382	-	-	362,136	0.00%
2016	382	-	-	421,240	0.00%
2017	383	-	-	420,293	0.00%
2018	383	-	-	480,745	0.00%

Wastewater System					
Fiscal Year	Accounts ⁽¹⁾	General Obligation Bonded Debt ⁽²⁾	General Bonded Debt Per Account	Annual Billings ⁽²⁾	Percentage of General Bonded Debt To Annual Billings
2009*	176	\$ 29,785	\$ 0.17	\$ 47,085	63.26%
2010*	176	27,255	0.15	48,764	55.89%
2011*	177	24,545	0.14	50,910	48.21%
2012	174	21,650	0.12	55,191	39.23%
2013	175	18,555	0.11	58,784	31.56%
2014	176	14,160	0.08	61,775	22.92%
2015	176	10,910	0.06	65,108	16.76%
2016	176	7,345	0.04	65,916	11.14%
2017	177	3,515	0.02	69,999	5.02%
2018	177	-	-	74,727	0.00%

* Restated due to report duplication of certain accounts in previous years.

Source: ⁽¹⁾ Financial Summary

⁽²⁾ Customer Information System

**Debt Capacity
Direct and Overlapping Debt**

Fiscal Year 2018

Wastewater System (Special District No. 1)

2017-18 Assessed Valuation: \$ 104,128,427,393

<u>Direct and Overlapping Tax and Assessment Debt:</u>	<u>% Applicable</u>	<u>Debt 6/30/18</u>
Alameda County	36.196 %	\$ 86,870,400
Bay Area Rapid Transit District	14.970	125,421,654
Peralta Community College District	100.000	380,170,000
Alameda Unified School District	100.000	153,197,996
Albany Unified School District	100.000	57,850,000
Berkeley Unified School District	100.000	236,545,000
Oakland Unified School District	100.000	900,690,000
Piedmont Unified School District	100.000	88,773,678
West Contra Costa Unified School District	20.119	229,696,395
Other School Districts	Various	110,868,318
City of Alameda	100.000	7,570,000
City of Albany	100.000	13,995,000
City of Berkeley	100.000	117,520,000
City of Oakland	99.983	317,551,007
East Bay Municipal Utility District, Special District No. 1	100.000	0
East Bay Regional Park District	23.403	43,950,834
West Contra Costa Healthcare District Parcel Tax Obligations	18.791	10,521,081
City of El Cerrito Parcel Tax Obligations	99.907	1,004,065
City of Alameda Community Facilities District No. 1	100.000	2,940,000
City of Alameda Community Facilities District No. 13-1	100.000	15,415,000
City of Berkeley Community Facilities District No. 1	100.000	2,745,000
1915 Act bonds	100.000	12,740,561
Sub-total Direct Tax and Assessment Debt		\$ -
Sub-total Overlapping Tax and Assessment Debt		2,916,035,989
Total Direct and Overlapping Tax and Assessment Debt		\$ 2,916,035,989
<u>Ratios to 2017-18 Assessed Valuation:</u>		
Total Direct Debt (\$0)	0.00 %	
Total Direct and Overlapping Tax and Assessment Debt	2.80 %	

(continued)

Source: California Municipal Statistics, Inc.

Debt Capacity

Direct and Overlapping Debt (Continued)

Fiscal Year 2018

Wastewater System (Special District No. 1)

<u>Overlapping General Fund Debt:</u>	<u>(1) % Applicable</u>	<u>Debt 6/30/18</u>
Alameda County General Fund Obligations	36.196 %	\$ 327,621,760
Alameda County Pension Obligation Bonds	36.196	3,234,954
Contra Costa County General Fund Obligations	3.124	9,115,123
Contra Costa County Pension Obligation Bonds	3.124	4,869,691
Alameda-Contra Costa Transit District Certificates of Participation	45.472	6,272,862
Peralta Community College District Pension Obligation Bonds	100.000	153,944,246
Oakland Unified School District Certificates of Participation	100.000	28,130,000
Other School District Certificates of Participation	Various	2,491,488
City of Alameda Cetificates of Participation	100.000	8,435,000
City of Berkeley General Fund Obligations and Pension Obligation Bonds	100.000	26,945,000
City of Oakland General Fund Obligations	99.983	137,215,992
City of Oakland Pension Obligation Bonds	99.983	271,533,208
Other City General Fund and Pension Obligation Bonds	Various	24,043,944
Moraga-Orinda Fire Protection District Pension Obligation Bonds	0.028	4,965
Total Gross Overlapping General Fund Debt		\$ 1,003,858,233
Less: Contra Costa County Obligations supported from revenue funds		3,592,270
City of Richmond obligations supported from port revenues		1,705,725
Total Net Overlapping General Fund Debt		\$ 998,560,238
 <u>Overlapping Tax Increment Debt (Successor Agencies):</u>	 0.071-100.000 %	 \$ 506,805,387
Total Direct Debt		\$ -
Gross Overlapping Debt		4,426,699,609
Net Overlapping Debt		4,421,401,614
Gross Combined Total Debt		\$ 4,426,699,609
Net Combined Total Debt		\$ 4,421,401,614

(1) Percentage of overlapping agency's assessed valuation located within boundaries of the district.

Ratios to Adjusted Assessed Valuation:

Gross Combined Total Debt	4.25 %
Net Combined Total Debt	4.25 %

Ratios to Redevelopment Successor Agencies Incremental Valuation (\$22,339,719,235)

Total Overlapping Tax Increment Debt	2.27 %
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Source: California Municipal Statistics, Inc.

**Debt Capacity
Summary of Debt Outstanding***

As of June 30, 2018
(Thousands of Dollars)

Water System

Revenue Bonds

Series 2008A	\$	105,250
Series 2010A		4,480
Series 2010B		400,000
Series 2012A		81,750
Series 2012B		214,850
Series 2013A		21,600
Series 2014A		128,315
Series 2014B		225,410
Series 2014C		75,000
Series 2015A		429,360
Series 2015B		74,335
Series 2015C		110,715
Series 2017A		185,355
Series 2017B		303,475

Total Water System Debt Outstanding	\$	2,359,895
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Wastewater System

Revenue Bonds

Series 2010A		5,295
Series 2010B		150,000
Series 2012A		20,000
Series 2014A		67,570
Series 2015A		68,370
Series 2015B		2,310
Series 2017A		66,530

Total Wastewater System Debt Outstanding	\$	380,075
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*Debt outstanding does not include State low interest loans, commercial paper or outstanding refunded but not yet called debt.

Source: Financial Statements

Demographic and Economic Information Section

- District Information
- Principal Water Rate Payers by Type of Customer
- Billed Water Consumption by Type of Customer
- Consumption and Account Comparative Highlights
- Area Employment Information

Demographic and Economic Information

District Information

Fiscal Year 2018

		<u>Water System</u>	<u>Wastewater System</u>
Established		1923	1944
Service Area	(square miles)	332	88
Population Served	(in thousands)	1,430	715
Unemployment Rate	(Alameda County - %)	3.3	3.3
Facilities:			
Miles of aqueducts		105.21	-
Miles of pipeline		4,133	-
Miles of tunnels		17.94	-
Miles of interceptors		-	29
Number of treatment plants*		10	-
Number of pumping stations		140	15
Number of treated water reservoirs		169	-
Number of reservoirs		176	-
Total District untreated water reservoir capacity	(acre feet)	757,380	-
Water demand per fiscal year			
District-provided water	(acre feet)	185,790	-
Water recycling per day	(in million gallons)	-	6.90
Wastewater treatment capacity			
Primary treatment		-	320
Secondary treatment		-	168
Energy Recovery	(%)	-	142
Number of active employees		1,621	256
Average years of service of employees		11	12

* Includes one standby treatment plant

Sources: State of California, Environmental Compliance, Urban Water Management Plan, Engineering, Finance, Water Consumption Report and Human Resources

Demographic and Economic Information
Principal Water Rate Payers by Type of Customer

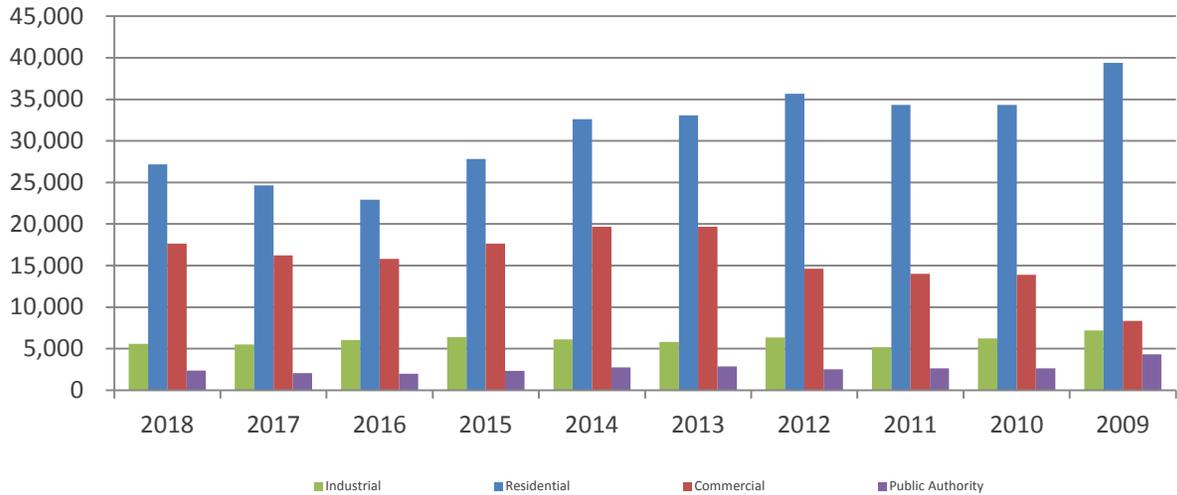
Fiscal Years 2009 to 2018
(In Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009										
	Billings	%																		
Residential	\$ 266,686	55.47%	\$ 231,504	55.08%	\$ 224,003	53.18%	\$ 199,467	55.08%	\$ 208,790	56.81%	\$ 209,119	62.23%	\$ 191,034	62.38%	\$ 173,911	61.31%	\$ 165,157	60.94%	\$ 173,911	60.53%
Commercial	151,286	31.47%	133,073	31.66%	137,403	32.62%	113,934	31.46%	112,769	30.68%	85,702	25.50%	76,109	24.85%	69,045	24.34%	64,198	23.69%	68,433	23.82%
Industrial	33,769	7.02%	30,524	7.26%	35,739	8.48%	26,145	7.22%	23,711	6.45%	20,796	6.19%	20,965	6.85%	23,269	8.20%	24,549	9.06%	27,570	9.60%
Public Authority	19,158	3.99%	16,061	3.82%	16,614	3.94%	14,253	3.94%	15,199	4.14%	14,370	4.28%	12,151	3.97%	11,926	4.20%	11,864	4.38%	12,381	4.31%
Other	9,846	2.05%	9,131	2.17%	7,481	1.78%	8,337	2.30%	7,078	1.93%	6,079	1.81%	5,970	1.95%	5,492	1.94%	5,254	1.94%	5,018	1.75%
Total annual billings	\$ 480,745	100%	\$ 420,293	100%	\$ 421,240	100%	\$ 362,136	100%	\$ 367,547	100%	\$ 336,066	100%	\$ 306,229	100%	\$ 283,643	100%	\$ 271,022	100%	\$ 287,313	100%
Top 1 Rate Payer	\$ 17,550	3.65%	\$ 16,139	3.84%	\$ 18,023	4.28%	\$ 13,709	3.79%	\$ 12,638	3.44%	\$ 9,175	2.73%	\$ 9,402	3.07%	\$ 9,957	3.51%	\$ 13,120	4.84%	\$ 12,075	4.20%
Top 10 Rate Payers	46,613	9.70%	41,967	9.99%	46,702	11.09%	37,498	10.35%	35,760	9.73%	31,128	9.26%	26,449	8.64%	26,267	9.26%	28,645	10.57%	29,122	10.14%

Source: Customer Information System

Demographic and Economic Information
Billed Water Consumption by Type of Customer
(In millions of gallons)

Fiscal Years 2009 to 2018



Type of Customer

Fiscal Year	Residential	Commercial	Industrial	Public Authority	Total
2009	39,366	8,323	7,189	4,332	59,210
2010	34,317	13,880	6,228	2,652	57,077
2011	34,330	14,016	5,145	2,646	56,137
2012	35,657	14,632	6,363	2,521	59,173
2013	33,083	19,686	5,818	2,878	61,465
2014	32,604	19,666	6,120	2,752	61,142
2015	27,827	17,657	6,402	2,314	54,200
2016	22,925	15,786	6,048	1,977	46,736
2017	24,656	16,226	5,496	2,056	48,434
2018	27,175	17,636	5,568	2,366	52,745

Source: Customer Information System

**Demographic and Economic Information
Consumption and Account Comparative Highlights**

Fiscal Years 2018 and 2017

Water System	2018	2017
During the Year:		
Total Water Production, millions of gallons	60,540	57,311
Average Daily Water Production, MGD*	166	157
Maximum Daily Water Production, MGD	232	222
Minimum Daily Water Production, MGD	120	112
At Year End:		
Number of Accounts	383,311	383,284
Number of Active Employees	1,621	1,585
Miles of Water Distribution Pipe	4,133	4,131
Operating Distribution Storage Capacity, millions of gallons	602	607

Wastewater System

During the Year:		
Average Daily Wastewater Flow, MGD	54	69
At Year End:		
Number of Accounts	176,947	176,921
Number of Active Employees	256	247

* millions of gallons per day

**Demographic and Economic Information
Area Employment Information**

Fiscal Years 2017 to 2018

Rank	Company	Estimated Total Employees	Percentage of Total County Employment
1	Kaiser Permanente Medical Group Inc.	33,700	2.55%
2	Chevron Corporation	15,507	1.17%
3	Safeway Inc.	10,184	0.77%
4	County of Alameda	9,268	0.70%
5	John Muir Health	6,570	0.50%
6	Tesla	6,000	0.45%
7	Wells Fargo Bank	5,264	0.40%
8	PG&E Corporation	5,210	0.39%
9	Alta Bates Summit Medical Center	4,561	0.35%
10	Lam Research Corporation	4,000	0.30%

Previous years data unavailable.

Source: County of Alameda and County of Contra Costa Area Employment, CAFR FY2017.

Operating Information Section

- Full-Time Equivalent District Positions by Function/Program
- Assessed Valuation of Taxable Property
- Ten-Year Summary of Property, Plant and Equipment
- Capital Asset Statistics by Function/Program
- Operating Indicators by Function/Program
- Ten-Year Summary of Expense by Source

Operating Information

Full Time Equivalent District Positions by Function/Program

Fiscal Years 2009 to 2018

<u>Function/Program</u>	<u>Fiscal Year Ended June 30</u>									
	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Maintenance and Construction	792.0	764.0	760.0	732.5	732.5	732.0	699.0	660.0	660.0	603.5
Water Operations and Maintenance	186.0	188.0	189.0	196.5	196.5	197.5	196.5	232.5	235.5	282.5
Water Resources	36.5	37.5	39.0	38.0	40.0	44.0	46.0	44.0	44.0	42.0
Natural Resources	68.5	68.5	69.5	69.5	69.5	69.5	69.5	69.5	70.5	68.0
Engineering and Construction	275.5	267.5	264.0	250.5	250.5	250.5	258.5	255.5	257.5	253.5
Office of the General Manager	25.5	25.5	25.5	26.5	25.5	25.5	29.5	29.5	29.5	33.5
Finance	99.5	99.5	98.5	97.5	96.5	97.5	55.0	57.0	57.0	54.0
Information Systems	96.0	94.0	96.0	92.0	93.0	95.0	94.0	94.0	94.0	93.0
Administration Department	2.0	2.0	2.0	2.0	56.0	57.0	103.5	106.5	106.5	107.5
Customer and Community Services	152.5	153.5	151.5	142.5	101.0	104.0	138.0	138.0	144.0	137.0
Human Resources	61.5	56.5	58.5	58.0	47.5	47.5	49.5	48.5	48.5	49.5
Office of General Counsel	17.0	17.0	17.0	17.0	17.0	17.0	16.5	16.5	16.5	16.5
Water Recycling Program	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Wastewater	287.5	286.5	285.5	288.5	286.5	286.5	284.5	286.5	283.5	285.5
Total	2108.0	2068.0	2064.0	2019.0	2,020.0	2,031.5	2,048.0	2,046.0	2,055.0	2,034.0

Note: Budgeted full-time equivalent positions available by Function/Program, actual headcount at year end for Water System and Wastewater System listed in: Demographic and Economic Information - Consumption and Account Comparative Highlights.

Operating Information
Assessed Valuation of Taxable Property

Fiscal Years 2009 to 2018
(In Millions)

	2018	2017	2016	2015	2014	2013	2012	2011	2010*	2009*
Fiscal Year Ended June 30										
Water System ⁽¹⁾										
Alameda County	\$ 127,263	\$ 119,325	\$ 112,041	\$ 103,645	\$ 98,957	\$ 94,461	\$ 92,499	\$ 91,896	\$ 93,523	\$ 95,616
Contra Costa County**	108,186	102,561	96,473	89,683	83,101	81,233	79,611	79,540	82,362	85,735
Total	\$ 235,449	\$ 221,886	\$ 208,514	\$ 193,328	\$ 182,058	\$ 175,694	\$ 172,110	\$ 171,436	\$ 175,885	\$ 181,351
Wastewater System ⁽¹⁾										
Alameda County	\$ 98,101	\$ 91,776	\$ 85,882	\$ 79,134	\$ 75,006	\$ 71,935	\$ 70,660	\$ 70,004	\$ 71,452	\$ 72,334
Contra Costa County	6,027	5,674	5,291	4,843	4,437	4,216	4,336	4,370	4,321	4,396
Total	\$ 104,128	\$ 97,450	\$ 91,173	\$ 83,977	\$ 79,443	\$ 76,151	\$ 74,996	\$ 74,374	\$ 75,773	\$ 76,730

Net assessed valuations, plus homeowners' exemptions, the taxes on which are paid by the State. All valuations are stated on a 100% of full cash value basis.

* Revised valuations for all years with reduction for Redevelopment Agencies removed.

** Minor revision in Contra Costa County assessed valuation from amounts previously reported due to a change in source data used.

⁽¹⁾ Historical Assessed Valuation for Tax Purposes numbers differ from those previously reported to correctly match the fiscal year of the County figures with the applicable fiscal year in the table. The amounts were offset by one year in the previous reports. In addition, minor differences in assessed valuation numbers from amounts previously reported can also occur from time to time due to a change in source data used.

Source: Alameda and Contra Costa Counties

Operating Information
Ten-Year Summary of Property, Plant and Equipment

Fiscal Years 2009 to 2018

Water System
(In Millions)

Fiscal Year Ended June 30

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Structures, Buildings and Equipment	\$5,497.7	\$5,264.5	\$5,131.1	\$4,919.4	\$4,779.4	\$4,600.4	\$4,473.1	\$4,040.1	\$3,864.4	\$3,705.1
Less Accumulated Depreciation	<u>(1,895.1)</u>	<u>(1,793.9)</u>	<u>(1,696.6)</u>	<u>(1,602.8)</u>	<u>(1,510.2)</u>	<u>(1,423.7)</u>	<u>(1,337.9)</u>	<u>(1,253.7)</u>	<u>(1,177.5)</u>	<u>(1,104.2)</u>
Subtotal	<u>3,602.6</u>	<u>3,470.6</u>	<u>3,434.5</u>	<u>3,316.6</u>	<u>3,269.2</u>	<u>3,176.7</u>	<u>3,135.2</u>	<u>2,786.4</u>	<u>2,686.9</u>	<u>2,600.9</u>
Land and Rights-of-Way	65.0	64.5	58.7	58.4	55.2	55.5	55.4	52.9	53.5	50.9
Construction in Progress	<u>472.4</u>	<u>405.4</u>	<u>303.0</u>	<u>309.4</u>	<u>243.2</u>	<u>252.5</u>	<u>209.8</u>	<u>716.6</u>	<u>783.1</u>	<u>705.6</u>
Total Capital Assets, Net	<u>\$4,140.0</u>	<u>\$3,940.5</u>	<u>\$3,796.2</u>	<u>\$3,684.4</u>	<u>\$3,567.6</u>	<u>\$3,484.7</u>	<u>\$3,400.4</u>	<u>\$3,555.9</u>	<u>\$3,523.5</u>	<u>\$3,357.4</u>

Sources: Financial Statements

Operating Information

Ten-Year Summary of Property, Plant and Equipment

Fiscal Years 2009 to 2018

Wastewater System
(In Millions)

Fiscal Year Ended June 30

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Structures, Buildings and Equipment	\$ 1,114.6	\$ 1,073.5	\$ 1,027.6	\$ 991.7	\$ 969.6	\$ 899.9	\$ 877.7	\$ 815.8	\$ 797.2	\$ 768.5
Less Accumulated Depreciation	<u>(464.0)</u>	<u>(441.3)</u>	<u>(418.7)</u>	<u>(396.1)</u>	<u>(371.9)</u>	<u>(353.6)</u>	<u>(331.9)</u>	<u>(312.1)</u>	<u>(293.0)</u>	<u>(273.6)</u>
Subtotal	<u>650.6</u>	<u>632.2</u>	<u>608.9</u>	<u>595.6</u>	<u>597.7</u>	<u>546.3</u>	<u>545.8</u>	<u>503.7</u>	<u>504.2</u>	<u>494.9</u>
Land and Rights-of-Way	21.4	21.3	21.2	21.0	20.2	20.0	20.0	19.9	19.7	19.7
Construction in Progress	<u>43.9</u>	<u>57.2</u>	<u>63.4</u>	<u>65.0</u>	<u>59.1</u>	<u>100.3</u>	<u>87.6</u>	<u>112.2</u>	<u>81.8</u>	<u>57.9</u>
Total Capital Assets, Net	<u>\$ 715.9</u>	<u>\$ 710.7</u>	<u>\$ 693.5</u>	<u>\$ 681.6</u>	<u>\$ 677.0</u>	<u>\$ 666.6</u>	<u>\$ 653.4</u>	<u>\$ 635.8</u>	<u>\$ 605.7</u>	<u>\$ 572.5</u>

Sources: Financial Statements

**Operating Information
Capital Asset Statistics by Function/Program**

Fiscal Years 2009 to 2018

<u>Function/Program</u>	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Water System										
Water mains (miles)	4,133	4,131	4,130	4,126	4,115	4,110	4,110	4,110	4,110	4,110
Fire hydrants	30,330	30,340	30,211	30,113	30,576	30,453	30,421	30,319	30,247	30,203
Reservoir storage at June 30 (in acre feet)	709,910	735,260	652,280	382,050	466,250	610,000	631,580	670,580	719,680	657,270
Wastewater System										
Sanitary sewers (miles)	Owned by various communities									
Treatment capacity (thousands of gallons per day)	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000

Source: Engineering Department and Accounting Department

**Operating Information
Operating Indicators by Function/Program**

Fiscal Years 2009 to 2018

<u>Function/Program</u>	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Water System										
New connections	590	760	741	1,041	621	534	426	477	514	735
Water main breaks	891	918	1,189	1,027	980	813	825	726	852	1,238
Average daily production (millions of gallons)	166	157	146	157	187	184	178	174	174	182
Peak daily production (millions of gallons)	232	222	186	222	288	253	251	260	253	262
Wastewater System										
Average daily sewage treatment (millions of gallons)	54	69	56	69	60	61	62	71	68	66

Source: NBO/CMS/Annual Report/Wastewater

Operating Information
Ten-Year Summary of Expense by Source

Fiscal Years 2009 to 2018
(In Millions)

	Fiscal Year Ended June 30									
	2018	2017	2016	2015	2014	2013	2012	2011*	2010*	2009*
Interest and Amortization of Bonds	\$ 120.7	\$ 109.7	\$ 109.3	\$ 124.3	\$ 121.1	\$ 116.3	\$ 121.3	\$ 105.8	\$ 80.9	\$ 92.3
Depreciation on Utility Plant	128.1	125.2	119.8	118.3	112.7	109.2	103.5	95.2	94.0	89.8
Water Treatment and Distribution	113.4	113.6	106.5	100.0	97.6	89.6	91.8	84.2	86.0	83.5
General Administration	60.1	43.6	49.7	45.7	57.7	61.7	46.9	52.2	49.5	63.7
Raw Water ⁽¹⁾	40.4	37.6	64.4	43.5	41.1	33.1	31.8	31.1	28.9	36.3
Sewer Treatment Plant Operations	38.2	35.1	33.3	32.5	31.7	28.7	30.4	28.7	25.2	25.9
Financial and Risk Management	17.5	21.6	19.6	19.3	17.0	17.2	18.2	18.1	17.5	20.8
Customer Accounting and Collecting	19.4	19.9	19.1	19.9	20.3	18.5	18.9	17.5	16.1	16.5
Facilities Management	5.5	5.2	6.3	6.9	9.0	8.8	11.8	12.2	8.1	5.7
Sewer Lines and Pumping	13.4	14.6	13.4	13.9	13.7	12.5	12.5	13.4	12.9	13.2
Recreation Areas, Net	<u>5.7</u>	<u>5.7</u>	<u>5.6</u>	<u>5.3</u>	<u>5.2</u>	<u>5.3</u>	<u>5.5</u>	<u>5.7</u>	<u>8.4</u>	<u>9.0</u>
Total:	\$ 562.4	\$ 531.8	\$ 547.0	\$ 529.6	\$ 527.1	\$ 500.9	\$ 492.6	\$ 464.1	\$ 427.5	\$ 456.7

* Restated to meet current formatting.

⁽¹⁾ Includes \$21 million, \$2 million and \$6 million from the purchase of additional drought water supply in 2016, 2015 and 2014, respectively.

Sources: Financial Statements



Capacity Charge Funds

Capacity Charge Funds

Government Code Section 66013 requires local agencies that collect capacity charges to deposit and account for these fees in a separate capital facilities fund. In addition, local agencies are required to annual provide the information in this report to the public upon request. Government Code Section 66013 (b) (3) defines “Capacity charge” means a charge for public facilities at the time the charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local agency involving capital expense related to its use of the use of existing or new public facilities.”

Government Code Section 66013 (d) outlines the reporting requirements on the capital facilities funds and expenditures. Government Code Section 66013 (f) (2) exempts capacity charges that are used to pay existing debt service from the reporting requirements of Section 66013 (d). Two of the District’s capacity charges are used to pay existing debt service; therefore, they are exempt from the reporting requirements. For the purpose of enhancing transparency, the District has provided the reporting information on its capacity charges that are exempt from Section 66013 (d).

The District has the following capacity charge funds:

Future Water Supply (FWS) Fund. This fund collects System Capacity Charges for new water service connections to pay for their share of the debt service costs of FWS projects. Because the FWS Fund is used to pay the debt service on existing debt for FWS projects, it is exempt from the reporting requirements of Government Code Section 66013 (d). Changes in this fund for FY18 are shown in the table below.

FY18 Future Water Supply Fund	
Balance 7/1/17	19,322,569
Additions	22,258,193
Costs Applied	-22,258,193
Interest Earnings	255,225
Balance 6/30/18	19,577,794

System Capacity Buy-In Component. In addition to the FWS, the System Capacity Charges for new water service connections include a buy-in component to pay for the proportional share of the existing water system infrastructure. The revenue from the System Capacity Buy-In component is used to pay the debt service on existing water system infrastructure debt and is exempt from the reporting requirements of Government Code Section 66013 (d). As shown in the table below, the revenues from the System Capacity Buy-In Component are used directly to pay debt service; therefore, there is no fund balance nor interest earnings.

FY18 System Capacity Buy-In Component	
Balance 7/1/17	0
Additions	47,013,995
Costs Applied	-47,013,995
Interest Earnings	0
Balance 6/30/18	0

Wastewater Equipment Replacement Fund (ERF). This fund collects a fee for the amount of the capacity used by new wastewater connections and is used to pay for equipment replacements. Changes in this fund for FY18 are shown in the table below.

FY18 Wastewater Equipment Replacement Fund	
Balance 7/1/17	10,062,369
Additions	11,418,608
Costs Applied	-3,635,951
Interest Earnings	161,818
Balance 6/30/18	18,006,844

Recorded Spending By Fund (Fiscal Year 2018)
(in Thousands)

Debt Service Expenditure/Project	FY18 Expenditures	FY18 Expenditures Funded by Capacity Fees
<u>Future Water Supply Fund</u>		
Debt Service on Existing FWS projects	\$41,341	\$22,258
<u>System Capacity Buy-In Component</u>		
Debt Service on Existing Water System Infrastructure	140,832	47,014
<u>Wastewater Equipment Replacement Fund</u>		
Routine Capital Equipment Replacement (100% of Costs)	3,636	3,636

Projected Spending By Fund (Fiscal Year 2019)

Project	Projected FY19 Expenditures (\$thousands)	FY19 Projected Expenditures Funded by Capacity Fees (\$thousands)
<u>Future Water Supply Fund</u>		
Debt Service on Existing FWS projects	\$41,341	\$10,360
<u>System Capacity Buy-In Component</u>		
Debt Service on Existing Water System Infrastructure	140,832	17,640
<u>Wastewater Equipment Replacement Fund</u>		
Routine Capital Equipment Replacement (100% of Costs)	3,213	3,213



General Information and Purpose

Water System

Wastewater System

Trustee Contacts by Issue

Contacts at East Bay Municipal Utility District

EBMUD Website

EAST BAY MUNICIPAL UTILITY DISTRICT
CONTINUING DISCLOSURE INFORMATION STATEMENT
(OPERATING AND FINANCIAL DATA PROVIDED IN ADDITION TO
AUDITED FINANCIAL STATEMENTS SEPARATELY FILED)

GENERAL INFORMATION AND PURPOSE

The purpose of this document is to provide information about the East Bay Municipal Utility District (the “District”). The information in this Continuing Disclosure Information Statement is provided in order to comply with the District’s contractual commitment established by certain continuing disclosure undertakings of the District, entered into in accordance with Securities and Exchange Commission Rule 15c2-12 (the “Rule”), to provide certain information specified therein. Certain information in this Continuing Disclosure Information Statement is not required to be provided by the District’s continuing disclosure undertakings. By providing such information, the District does not undertake or agree to provide such information in any future year. The District makes no representation that this Continuing Disclosure Information Statement contains all information material to a decision to purchase or sell any of the District’s bonds.

The information set forth herein has been furnished by the District and includes information obtained from other sources, which are believed to be reliable. Any statements herein involving matters of opinion or estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that such opinion or estimates will be realized. The information and expressions of opinion contained in this Continuing Disclosure Information Statement are provided as of the respective dates specified herein and are subject to change without notice, and the filing of this Continuing Disclosure Information Statement shall not, under any circumstances, create any implication that there has been no change in the affairs of the District or in the other matters described herein since the date as of which such information is provided. The District reserves the right to amend this information at any time.

Investors may obtain further information about the District by obtaining a copy of the District’s most recent official statement (which will contain information accurate as of the date of such official statement) from the Municipal Securities Rulemaking Board at <http://emma.msrb.org/>. Information requests may also be directed to:

Director of Finance
East Bay Municipal Utility District
375 Eleventh Street
Oakland, California 94607-4240
Phone: (510) 287-0310

This information statement provides information about the East Bay Municipal Utility District. Generally, this document relates to debt issued by the District under two security structures:

- **Water System Revenue Bonds**
- **Wastewater System Revenue Bonds**

As of September 15, 2010, the District covenanted and agreed that it will not in the future issue any additional senior lien water system revenue bonds or senior lien wastewater system revenue bonds previously issued under the District's Senior Water Bond Resolution and Senior Wastewater Bond Resolution, respectively. Certain of the District's bonds that were once designated as Water System Subordinated Revenue Bonds and Wastewater System Subordinated Revenue Bonds, respectively, are now referred to as Water System Revenue Bonds and Wastewater System Revenue Bonds, respectively, in order to reflect that the lien securing the prior senior lien water system revenue bonds and prior senior lien wastewater system revenue bonds has been closed. There are no senior lien water system revenue bonds or senior lien wastewater system revenue bonds remaining outstanding.

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Debt Outstanding

The following Table 1 summarizes the District's Water System outstanding long-term debt. All information is presented as of June 30, 2018.

TABLE 1: SUMMARY OF WATER SYSTEM DEBT OUTSTANDING

<i>Issue</i>	<i>Date of Issue</i>	<i>Last Maturity</i>	<i>Amount Issued</i>	<i>Outstanding June 30, 2018</i>
Water System Revenue Bonds				
Revenue Refunding Bonds, Series 2008A ⁽¹⁾	03/20/08	06/01/38	\$ 322,525,000	\$ 105,250,000
Revenue/Refunding Bonds, Series 2010A	02/03/10	06/01/36	192,830,000	4,480,000
Revenue Bonds, Series 2010B (Build America Bonds)	02/23/10	06/01/40	400,000,000	400,000,000
Revenue Refunding Bonds, Series 2012A	10/10/12	06/01/37	191,750,000	81,750,000
Revenue Refunding Bonds, Series 2012B	11/13/12	06/01/26	358,620,000	214,850,000
Revenue Refunding Bonds, Series 2013A	03/05/13	06/01/21	48,670,000	21,600,000
Revenue Refunding Bonds, Series 2014A	06/11/14	06/01/35	128,315,000	128,315,000
Revenue Refunding Bonds, Series 2014B	06/11/14	06/01/30	242,730,000	225,410,000
Revenue Bonds, Series 2014C	06/26/14	06/01/44	75,000,000	75,000,000
Revenue Refunding Bonds, Series 2015A	03/03/15	06/01/37	429,360,000	429,360,000
Revenue Bonds, Series 2015B (Green Bonds)	06/17/15	06/01/45	74,335,000	74,335,000
Revenue Bonds, Series 2015C	06/17/15	06/01/45	110,715,000	110,715,000
Revenue Bonds, Series 2017A (Green Bonds)	06/22/17	06/01/45	185,355,000	185,355,000
Revenue/Refunding Bonds, Series 2017B	06/22/17	06/01/37	<u>309,665,000</u>	<u>303,475,000</u>
Total Water System Revenue Bonds			\$3,069,870,000	\$2,359,895,000
Parity Debt:				
Safe Drinking Water State Revolving Fund Loan (Upper San Leandro Reservoir)	01/01/03	01/01/24	2,188,000	713,000
State Water Resources Control Board Loan (East Bayshore Recycled Water Project)	05/22/08	04/01/28	20,100,000	11,087,000
State Water Resources Control Board Loan (South Reservoir Replacement)	12/14/17	07/01/48	18,946,632 ⁽²⁾	2,260,000 ⁽³⁾
State Water Resources Control Board Loan (MacArthur Davenport Pipeline Replacement Project)	04/18/18	07/01/49	<u>18,041,600⁽²⁾</u>	<u>0⁽³⁾</u>
Total Parity State Loans			\$ 59,276,232	\$ 14,060,000
Subordinate Debt:				
Commercial Paper Notes (Water Series)	Various	Various	<u>359,800,000⁽⁴⁾</u>	<u>359,800,000</u>
Total Debt			<u>\$3,488,946,232</u>	<u>\$2,733,755,000</u>

⁽¹⁾ Liquidity support currently provided by Standby Bond Purchase Agreements with Wells Fargo Bank, National Association (Series 2008A-1 Bonds and Series 2008A-4 Bonds, expiring December 9, 2019) and U.S. Bank National Association (Series 2008A-2 and Series 2008A-3 Bonds, expiring November 24, 2021). The District has entered into interest rate swap agreements that provide a hedge for the Series 2008A Bonds.

⁽²⁾ Amounts reflect the full amount of the respective State Water Resources Control Board Loan that has been authorized by the State Water Resources Control Board and that can be drawn upon by the District.

⁽³⁾ Amounts reflect the amounts of the respective State Water Resources Control Board Loan that have been drawn upon by the District as of June 30, 2018.

⁽⁴⁾ Commercial paper notes may be issued by the District in an amount up to the statutory limit described herein.

Source: The District.

The following Table 2 summarizes the District's Wastewater System outstanding long-term debt. All information is presented as of June 30, 2018.

TABLE 2: SUMMARY OF WASTEWATER SYSTEM DEBT OUTSTANDING

	<i>Date of Issue</i>	<i>Last Maturity</i>	<i>Amount Issued</i>	<i>Outstanding June 30, 2018</i>
<u>Wastewater System Revenue Bonds:</u>				
Revenue/Refunding Bonds, Series 2010A	10/20/10	06/01/29	\$ 58,095,000	\$ 5,295,000
Revenue Bonds, Series 2010B (Build America Bonds)	10/20/10	06/01/40	150,000,000	150,000,000
Revenue Refunding Bonds, Series 2012A	10/10/12	06/01/37	20,000,000	20,000,000
Revenue Refunding Bonds, Series 2014A	08/28/14	06/01/31	82,150,000	67,570,000
Revenue Refunding Bonds, Series 2015A	03/03/15	06/01/38	68,370,000	68,370,000
Revenue Refunding Bonds, Series 2015B	03/03/15	06/01/30	2,795,000	2,310,000
Revenue/Refunding Bonds, Series 2017A	06/14/17	06/01/45	<u>69,420,000</u>	<u>66,530,000</u>
Total Wastewater System Revenue Bonds			\$450,830,000	\$380,075,000
<u>Subordinate Debt:</u>				
Commercial Paper Notes (Wastewater Series)	Various	Various	<u>15,000,000⁽¹⁾</u>	<u>15,000,000</u>
Total Debt			<u>\$465,830,000</u>	<u>\$395,075,000</u>

⁽¹⁾ Commercial paper notes may be issued in an amount up to the statutory limit described herein. Source: The District.

Commercial Paper Programs

The District has authorized two short-term commercial paper borrowing programs: an extendable municipal commercial paper program and a traditional commercial paper program.

Under the extendable municipal commercial paper program, commercial paper may be issued for the Water System ("Extendable Municipal Commercial Paper Notes (Water Series)") or the Wastewater System ("Extendable Municipal Commercial Paper Notes (Wastewater Series)") at prevailing interest rates for periods of not more than 120 days from the date of issuance with the option by the District to extend the maturity for another 150 days. The extendable municipal commercial paper program is not supported by any liquidity or revolving credit agreement. As of June 30, 2018, \$15,000,000 principal amount of extendable commercial paper notes was outstanding under the District's extendable municipal commercial paper program, consisting of \$0 of Extendable Municipal Commercial Paper Notes (Water Series) and \$15,000,000 of Extendable Municipal Commercial Paper Notes (Wastewater Series), with an average weighted remaining life to maturity of 33 days.

The District has also authorized a traditional commercial paper program as an additional or alternative short-term borrowing mechanism. Commercial paper notes under the traditional commercial paper program may be issued for the Water System ("Commercial Paper Notes (Water Series)") or the Wastewater System ("Commercial Paper Notes (Wastewater Series)") at prevailing interest rates for periods of not more than 270 days from the date of issuance. The District has secured liquidity arrangements from various banking institutions in order to provide an additional source of principal repayment for commercial paper notes issued pursuant to its traditional commercial paper program. As of June 30, 2018, \$359,800,000 principal amount of commercial paper notes was outstanding under the District's traditional commercial paper program, consisting of \$359,800,000 of Commercial Paper Notes (Water Series) and \$0 of Commercial Paper Notes (Wastewater Series), with an average weighted remaining life to maturity of 25 days.

Short-term indebtedness (including commercial paper notes under either of the above-mentioned programs, and/or other forms of bonds, notes or other evidences of short-term indebtedness, including bank credit) may be issued by the District under the authority of Chapter 7.5 of the Municipal Utility District Act (the “MUD Act”) in a maximum aggregate principal amount outstanding at any one time of up to the lesser of either (1) the annual average of the total revenue for the three preceding years or, (2) 25% of the District’s outstanding bonds.

The Water System and the Wastewater System commercial paper notes are payable from and secured by a pledge of the respective System’s revenues on a basis subordinate to the Water System and Wastewater System revenue bonds.

The proceeds of the District’s commercial paper notes may be used to finance or refinance the costs of (i) the planning, design, engineering, acquisition or construction of facilities for the storage, transmission or distribution of water; the storage, transmission or treatment of sewage or byproducts of sewage treatment; or the generation or transmission of electricity, (ii) the replacement of works of the District that have been damaged or demolished by reason of fire, flood, earthquake, sabotage or acts of God or the public enemy, (iii) any expenses or charges incurred in connection with the foregoing purposes and to reimburse the District for expenditures for any such purposes, or for the purpose of paying commercial paper notes issued for the foregoing purposes. There were no unused proceeds on June 30, 2018.

Investment Policy

The District’s Investment Policy can be summarized as follows:

Funds of the District are invested in accordance with the Government Code of the State of California, the MUD Act and the District’s Investment Policy. Investments shall be in securities with a range of maturities expected to provide adequate security and liquidity to pay demands when due while providing a high rate of return on investments. Criteria for selecting investments are to:

- adhere to the prudent investor standard; and
- conform with the Government Code and MUD Act; and
- have the following objectives, in order of priority:
 1. *Safety* - The District’s ability to recover principal and interest. Investments shall be made that will seek to insure the preservation of principal and interest and minimize risk to the greatest extent possible. It is the primary duty of the District Treasurer to protect, preserve and maintain cash and investments on behalf of the District.
 2. *Liquidity* - The District’s ability to have cash available when needed to support expenditure cycles and budgetary objectives.
 3. *Yield* – The District’s ability to provide maximum return on the District’s investments while conforming to the safety and liquidity criteria above.
 4. *Diversification* – The District’s ability to maintain an investment portfolio that includes a range of security types for the District. In order to accomplish this, each investment option shall have defined limits on the maximum share of the portfolio, single issuer and single issue holdings, and maturity, rating and other restrictions where applicable.

Investment Options

The following are investment options for the District under the District's Investment Policy.

1. US Treasury Obligations
2. US Government Agencies Obligations
3. State of California's Local Agency Investment Fund (LAIF)
4. California Asset Management Program (CAMP), a Local Government Investment Pool (LGIP)
5. Money Market Mutual Funds
6. Certificates of Time Deposit
7. Negotiable Certificates of Deposit
8. Commercial Paper
9. Medium Term Corporate Notes
10. Repurchase Agreements, if collateralized
11. Municipal Obligations, limited to California issuers, including the State of California

Pursuant to the District's Investment Policy:

- All securities purchased from dealers and brokers are held in safekeeping by the District's custodial bank. All transactions require delivery of the security prior to payment for the security (delivery vs. payment).
- Collateral, when required, would only be in US Treasury or US Government Agencies Obligations, with a Master Repurchase Agreement on file with the District.
- Trade confirmations are reviewed for conformity to the original transaction by an individual other than the one who originated the transaction.
- Reporting includes: on a monthly basis, a report listing transactions is submitted to the General Manager and the District's Board of Directors; and on a quarterly basis, an investment report is submitted to the General Manager and the Finance/Administration Committee of the District's Board of Directors. This quarterly report includes the type of investment, issuer, date of maturity, par and dollar amount invested for all securities, investments and moneys held by the District, and provides an investment summary by security type, percent of the portfolio, investment yield and the remaining period of investment to maturity.

The District does not enter into reverse repurchase agreements or otherwise borrow for purposes of investing. The District does not invest in highly volatile derivatives and other such securities. The District has, however, entered into interest rate swap transactions to hedge interest rate exposure on outstanding variable rate revenue bonds.

District Population

The District occupies approximately 332 square miles in 20 incorporated and 15 unincorporated communities in both Alameda and Contra Costa Counties. It covers the eastern shore of San Francisco Bay from Carquinez Strait in the north to and including San Lorenzo in the south and it extends approximately 20 miles east, beyond the Oakland-Berkeley hills, into Contra Costa County.

The District's Water System serves this entire area, reaching approximately 1.4 million people, or approximately 51% of the combined population of Alameda County and Contra Costa County. The District's Wastewater System treats and disposes of the wastewater from an area within the District designated as Special District No. 1, serving approximately 685,000 people in an approximately 88 square mile area of the two counties, extending from Richmond in the north, southward to San Leandro.

Table 3 shows the population trends for the six largest cities in the District, Alameda and Contra Costa Counties and the State for the five years 2014 to 2018.

**TABLE 3: DISTRICT WATER SYSTEM SIX LARGEST CITIES
ALAMEDA, CONTRA COSTA COUNTIES AND CALIFORNIA
POPULATION TRENDS⁽¹⁾**

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Oakland	411,636	420,269	424,471	427,503	428,827
Berkeley	117,498	118,543	119,435	120,700	121,874
Richmond	107,735	108,480	109,794	110,114	110,967
San Leandro	86,554	86,893	86,961	87,376	87,598
Alameda	76,058	76,489	77,969	78,575	78,863
Walnut Creek	<u>67,039</u>	<u>68,128</u>	<u>69,736</u>	<u>70,558</u>	<u>70,667</u>
Total Six Cities	866,520	878,802	888,366	894,826	898,796
Alameda County	1,588,576	1,611,770	1,629,738	1,646,405	1,660,202
Contra Costa County	1,098,018	1,112,328	1,127,279	1,139,313	1,149,363
California	38,568,628	38,912,464	39,179,627	39,500,973	39,809,693

⁽¹⁾ As of January 1 of each year.

Source: State of California, Department of Finance, *E-4 Population Estimates for Cities, Counties and the State, 2011-2018, with 2010 Census Benchmark*. Sacramento, California, May 2018.

Table 4 shows the population trends for the seven largest cities within the District's Wastewater System service area, Alameda and Contra Costa Counties and the State for the five years 2014 to 2018. The District's Wastewater System treats domestic, commercial and industrial wastewater for the six cities of Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont (the "six participating cities"), and for the Stege Sanitary District, which includes El Cerrito, Kensington and part of Richmond.

**TABLE 4: SEVEN LARGEST CITIES IN DISTRICT WASTEWATER SYSTEM SERVICE AREA
ALAMEDA, CONTRA COSTA COUNTIES AND CALIFORNIA
POPULATION TRENDS⁽¹⁾**

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Oakland	411,636	420,269	424,471	427,503	428,827
Berkeley	117,498	118,543	119,435	120,700	121,874
Alameda	76,058	76,489	77,969	78,575	78,863
El Cerrito	42,753	43,161	43,458	44,048	44,396
Albany	18,482	18,540	18,561	18,646	19,053
Piedmont	11,080	11,169	11,250	11,309	11,318
Emeryville	<u>10,854</u>	<u>11,057</u>	<u>11,866</u>	<u>11,995</u>	<u>11,994</u>
Total Seven Cities	688,361	699,228	707,010	712,776	716,325
Alameda County	1,588,576	1,611,770	1,629,738	1,646,405	1,660,202
Contra Costa County	1,098,018	1,112,328	1,127,279	1,139,313	1,149,363
California	38,568,628	38,912,464	39,179,627	39,500,973	39,809,693

⁽¹⁾ As of January 1 of each year. Includes the six participating cities and El Cerrito, the largest incorporated portion of the Stege Sanitary District service area.

Source: State of California, Department of Finance, *E-4 Population Estimates for Cities, Counties and the State – 2011-2018, with 2010 Census Benchmark*. Sacramento, California, May 2018.

Taxable Property/Assessed Valuations

Table 5 shows a five-year record of assessed valuations, secured roll levies and delinquencies for the taxable property included within the District.

**TABLE 5: TAXABLE PROPERTY WITHIN THE WATER SYSTEM
ASSESSED VALUATION AND TAX COLLECTION RECORD**

Fiscal Year	2014	2015	2016	2017	2018
ASSESSED VALUATION FOR TAXATION PURPOSES⁽¹⁾⁽²⁾					
Alameda County	\$ 98,956,612,301	\$103,645,001,482	\$112,041,019,464	\$119,325,397,941	\$127,263,417,316
Contra Costa County	<u>83,100,933,502</u>	<u>89,682,673,562</u>	<u>96,472,922,101</u>	<u>102,560,510,616</u>	<u>108,186,306,742</u>
TOTAL	\$182,057,545,803	\$193,327,675,044	\$208,513,941,565	\$221,885,908,557	\$235,449,724,058
COUNTY 1% ALLOCATED PROPERTY TAX REVENUES TO DISTRICT⁽³⁾					
Alameda County	\$13,669,336	\$14,943,333	\$16,136,648	\$17,152,223	\$19,017,612
Contra Costa County	<u>11,823,055</u>	<u>12,978,787</u>	<u>13,732,785</u>	<u>14,818,866</u>	<u>15,687,955</u>
TOTAL	\$25,492,391	\$27,922,120	\$29,869,433	\$31,971,089	\$34,705,567
DELINQUENCIES⁽⁴⁾					
Delinquent June 30					
Amount	\$211,831	\$198,418	\$239,980	\$236,737	\$213,655
Percent	0.83%	0.71%	0.80%	0.74%	0.62%

⁽¹⁾ Historical Assessed Valuation for Tax Purposes numbers differ from those previously reported to realign the fiscal year of the County figures with the applicable Fiscal Year in the table. In previous reports, the amounts were offset by one year. In addition, minor differences in assessed valuation numbers from amounts previously reported occur from time to time due to a change in source data used.

⁽²⁾ Net of all exemptions except homeowner’s exemptions, the taxes on which are paid by the State. All valuations are stated on a 100% of full cash value basis as defined by law. Assessed valuations shown include redevelopment project area incremental valuations.

⁽³⁾ Net basis excluding all exemptions. Levies reflect the tax reductions effected by the adoption of Article XIII A of the State Constitution in 1978, the “Jarvis-Gann Initiative.” For Alameda County, receipts include District’s share of prior years’ delinquencies when collected.

⁽⁴⁾ Amounts apply to Alameda County only, since Contra Costa County guarantees 100% payment of the District’s secured roll levy. The delinquency percentages are calculated based on the two counties’ secured roll levies.

Sources: Reports of the Auditor-Controller’s Offices of Alameda and Contra Costa Counties, table data as compiled by the District.

Table 6 shows a five-year record of assessed valuations, secured roll levies and delinquencies for the taxable property included within Special District No. 1.

**TABLE 6: TAXABLE PROPERTY WITHIN THE WASTEWATER SYSTEM
ASSESSED VALUATION AND TAX COLLECTION RECORD**

Fiscal Year	2014	2015	2016	2017	2018
ASSESSED VALUATION FOR TAXATION PURPOSES⁽¹⁾⁽²⁾					
Alameda County	\$75,005,826,233	\$79,134,556,452	\$85,882,609,820	\$91,776,237,397	\$ 98,101,088,469
Contra Costa County	<u>4,436,844,975</u>	<u>4,842,733,668</u>	<u>5,290,848,967</u>	<u>5,674,453,030</u>	<u>6,027,338,924</u>
TOTAL	\$79,442,671,208	\$83,977,290,120	\$91,173,458,787	\$97,450,690,427	\$104,128,427,393
COUNTY 1% ALLOCATED PROPERTY TAX REVENUES TO DISTRICT⁽³⁾					
Alameda County	\$3,557,107	\$3,656,005	\$4,286,754	\$4,529,398	\$5,024,216
Contra Costa County	<u>973,382</u>	<u>323,779</u>	<u>353,271</u>	<u>385,582</u>	<u>404,633</u>
TOTAL	\$4,530,489	\$3,979,784	\$4,640,025	\$4,914,980	\$5,428,849
TOTAL PROPERTY TAX/AD VALOREM TAX REVENUES⁽⁴⁾					
Alameda County	\$8,611,620	\$7,910,988	\$7,400,912	\$7,232,843	\$6,300,863
Contra Costa County	<u>1,269,429</u>	<u>557,382</u>	<u>537,689</u>	<u>547,352</u>	<u>473,110</u>
TOTAL	\$9,881,049	\$8,468,370	\$7,938,601	\$7,780,195	\$6,773,973
DELINQUENCIES⁽⁵⁾					
Delinquent June 30					
Amount	\$143,118	\$109,278	\$112,750	\$111,290	\$79,688
Percent	1.45%	1.27%	1.42%	1.43%	1.18%

⁽¹⁾ Historical Assessed Valuation for Tax Purposes numbers differ from those previously reported to realign the fiscal year of the County figures with the applicable Fiscal Year in the table. In previous reports, the amounts were offset by one year. In addition, minor differences in assessed valuation numbers from amounts previously reported occur from time to time due to a change in source data used.

⁽²⁾ Net of all exemptions except homeowner's exemptions, the taxes on which are paid by the State. All valuations are stated on a 100% of full cash value basis as defined by law. Assessed valuations shown include redevelopment project area incremental valuations.

⁽³⁾ Net basis excluding all exemptions. Levies reflect the tax reductions effected by the adoption of Article XIII A of the State Constitution in 1978, the "Jarvis-Gann Initiative." For Alameda County, receipts include District's share of prior years' delinquencies when collected.

⁽⁴⁾ Includes *ad valorem* tax levy for debt service on District general obligation bonds which were fully retired in April 2018.

⁽⁵⁾ Amounts apply to Alameda County only, since Contra Costa County guarantees 100% payment of the District's secured roll levy. The delinquency percentages are calculated based on the two counties' secured roll levies.

Sources: Reports of the Auditor-Controller's Offices of Alameda and Contra Costa Counties, table data as compiled by the District.

WATER SYSTEM**Material Changes in Water Supply**

There have been no material changes in the District's primary sources of water supply. However, the availability of these sources is impacted by California hydrology, which can be highly variable from year to year. Following four consecutive years of drought from 2012 through 2015, in Water Year 2016 (Water Year beginning on October 1, 2015 and ending on September 30, 2016), there was near normal runoff and slightly above average precipitation in the District's Mokelumne watershed, the main source of its water supply. Water Year 2017 was the wettest runoff year on record in the Mokelumne Watershed. Water Year 2018 was a slightly below average year for precipitation and runoff in the Mokelumne watershed. The District began Water Year 2019, which commenced on October 1, 2018, with a provisional estimate of 651,000 acre-feet in total system storage (Pardee, Camanche and East Bay terminal reservoirs), representing 84% of capacity or 114% of average.

Additional information regarding the District's water supply may be obtained from the District's website at <http://www.ebmud.com>.

Gross Water Production

Annual water production in the District since Fiscal Year 2009 is shown in Table 7 below. Note that this information was re-labeled as “production” rather than “consumption” beginning in Fiscal Year 2012 to more accurately characterize the data. Water production includes the total water produced at the District’s water treatment plants and water moved through the distribution system that was delivered to customers, as well as water lost through leaks in the transmission system, water used in the treatment process, evaporation, water used for fighting fires and other miscellaneous causes.

TABLE 7: WATER PRODUCTION BY FISCAL YEAR⁽¹⁾

<i>Fiscal Year</i>	<i>Annual Production (Acre-Feet)</i>	<i>Annual Production (Thousands of Ccf)</i>	<i>Annual Production (Million Gallons)</i>	<i>Average Production Per Day (Million Gallons per Day)</i>
2009	203,423	88,611	66,281	182
2010	195,158	85,011	63,588	174
2011	194,642	84,786	63,420	174
2012	200,220	87,216	65,242	178
2013	205,889	89,685	67,089	184
2014	209,467	91,244	68,255	184
2015	174,411	75,974	56,832	156
2016	162,562	70,812	52,971	145
2017	173,641	75,638	56,581	155
2018	185,790	80,930	60,540	166

⁽¹⁾ Water production includes water lost through leaks in the transmission system, used in the treatment process, evaporation, fighting fires and other miscellaneous causes, which approximates 10.0% of gross production.

Source: The District.

Sources of Funds/Summary of Revenues and Contributions

The following Table 8 sets forth the District’s Water System sources of funds for the five most recent Fiscal Years ended June 30, 2018. The sources of funds in the table below include certain funds which do not constitute Subordinated Water Revenues for purposes of the Indenture. Subordinated Water Revenues include all charges received for, and all other income and receipts derived by the District from, the operation of the Water System or arising from the Water System, which includes, without limitation, the District’s water rates, system capacity charge, and prior to its sunset effective July 1, 2015, its seismic surcharge, as well as investment income, less Operation and Maintenance Costs. Property taxes are applied to reduce Operation and Maintenance Costs and are not pledged to the repayment of the Water System Revenue Bonds. Contributions received for facility relocations, main extensions and service installations, and grants and other reimbursements, which are restricted to use for the specified purposes are not included in Subordinated Water Revenues for purposes of the Indenture. Only Subordinated Water Revenues are pledged to the payment of the Water System Revenue Bonds.

**TABLE 8: WATER SYSTEM SOURCES OF FUNDS/SUMMARY OF REVENUES AND CONTRIBUTIONS
FIVE FISCAL YEARS ENDED JUNE 30, 2018
(MILLIONS)**

	<i>Fiscal Year Ending June 30</i>				
	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Operating Revenue and Other Income:					
Water sales	\$367.5	\$362.1	\$421.2	\$420.3	\$480.7
Power sales	1.4	2.2	3.5	7.8	6.4
Interest ⁽¹⁾	1.7	3.5	2.2	3.3	7.9
Taxes	25.5	27.9	29.9	32.0	34.7
Other ⁽²⁾	<u>19.9</u>	<u>15.3</u>	<u>14.0</u>	<u>14.9</u>	<u>14.8</u>
Total Operating Revenue and Other Income ⁽⁶⁾	<u>\$416.0</u>	<u>\$411.0</u>	<u>\$470.8</u>	<u>\$478.3</u>	<u>\$544.6</u>
Capital Contributions:					
Seismic Surcharge ⁽³⁾	\$ 22.6	\$ 22.2	\$ 0.0	\$ 0.0	\$ 0.0
System Capacity Charge ⁽⁴⁾	20.4	29.7	39.3	51.5	69.3
Earned contributions on construction ⁽⁵⁾	5.2	17.1	17.0	14.4	15.5
Grants and reimbursements	<u>0.8</u>	<u>2.5</u>	<u>4.4</u>	<u>10.1</u>	<u>2.8</u>
Total Contributions ⁽⁶⁾	<u>\$ 49.0</u>	<u>\$ 71.5</u>	<u>\$ 60.8</u>	<u>\$ 75.9</u>	<u>\$ 87.6</u>
Total⁽⁶⁾	<u>\$465.0</u>	<u>\$482.5</u>	<u>\$531.5</u>	<u>\$554.2</u>	<u>\$632.2</u>

⁽¹⁾ Includes interest earnings on Water System Fund, including earnings on proceeds of the District's Water System Revenue Bonds.

⁽²⁾ Other Revenues include receipts from property sales, rental of District property, fees for use of District recreational facilities and other miscellaneous receipts. Beginning in Fiscal Year 2010, Other Revenues also includes interest subsidy payments received in each year by the District in connection with its Series 2010B Bonds which are Build America Bonds. Excludes reimbursements and other receipts applied directly to operating expenses.

⁽³⁾ The sunset of the seismic surcharge became effective July 1, 2015 and beginning with Fiscal Year 2016 the seismic surcharge is no longer being charged.

⁽⁴⁾ System capacity charge collections presented in the table above include the "buy-in" portion and the "future water supply" portion of SCC charges when collected.

⁽⁵⁾ Includes contributions for facility relocations, main extensions and service installations.

⁽⁶⁾ Totals may not add due to rounding.

Source: The District.

Water Sales Revenues, Number of Connections (Accounts) and Metered Consumption

The following Table 9 sets forth water sales revenues, consumption and number of connections by customer type.

**TABLE 9: WATER SALES REVENUES, CONSUMPTION AND NUMBER OF CONNECTIONS
BY CUSTOMER TYPE****FISCAL YEAR ENDED JUNE 30, 2018**

<i>Type of Customer</i>	<i>Sales Revenues⁽¹⁾</i>	<i>Percent of Revenues</i>	<i>Consumption (MGD)</i>	<i>Percent of Consumption</i>	<i>Number of Connections⁽²⁾</i>	<i>Percent of Connections</i>
Residential	\$268,445,433	55.8%	74.5	51.5%	348,357	89.1%
Commercial	154,491,685	32.1	48.3	33.4	38,245	9.8
Industrial	38,543,535	8.0	15.3	10.6	1,840	0.5
Public Authority	19,264,596	4.0	6.5	4.5	2,352	0.6
Total ⁽³⁾	<u>\$480,745,249</u>	<u>100.0%</u>	<u>144.5</u>	<u>100.0%</u>	<u>390,794</u>	<u>100.0%</u>

⁽¹⁾ Does not include account establishment fees, recycled water fees and certain other miscellaneous charges.

⁽²⁾ Connections as of June 30, 2018.

⁽³⁾ Totals may not add due to rounding.

Source: The District.

Rates and Charges

From Fiscal Year 2014 through Fiscal Year 2018, residential rates for water service have increased by an average of approximately 8.6% per Fiscal Year. The overall average rate increase, which includes the rate increases for all customer classes and rate components, for the same period was approximately 8.8%. The District's most recent increases in water service rates and charges included the adoption on July 11, 2017 of overall average rate increases (including meter, volume, elevation charges, non-potable (recycled) water and private fire service) of 9.25% for Fiscal Year 2018 and 9.00% for Fiscal Year 2019. Table 10 sets forth the average residential and overall average rate increases enacted by the District for the five Fiscal Years 2014 through 2018, as well as the average residential and overall average rate increases adopted on July 11, 2017, effective on July 1, 2018, for Fiscal Year 2019:

TABLE 10: WATER RATE INCREASES

<i>Fiscal Year</i>	<i>Average Residential Rate Increase</i>	<i>Overall Average Rate Increase⁽¹⁾</i>
2014	9.79%	9.75%
2015	9.43	9.50
2016 ⁽²⁾	7.35 ⁽²⁾	8.00 ⁽²⁾
2017 ⁽³⁾	7.02 ⁽³⁾	7.00 ⁽³⁾
2018	9.21	9.25
2019 ⁽⁴⁾	8.99 ⁽⁴⁾	9.00 ⁽⁴⁾

⁽¹⁾ Overall average rate increase includes water rates for all customer classes (including residential) and water rate components.

⁽²⁾ Fiscal Year 2016 rate increase is subsequent to cost of service adjustments. As a result of certain adjustments to individual meter, volume, elevation, non-potable and private fire service rates and charges designed to implement the results of an updated cost of service study completed by the District, different rate increases are applicable for each customer class and for individual customers within each customer class depending on water use and meter size. Rate increase excludes drought surcharge.

⁽³⁾ Excludes drought surcharge.

⁽⁴⁾ Adopted overall rate increase for Fiscal Year 2019 to take effect on bills issued on or after July 1, 2018.

Source: The District.

Table 11 shows the rate schedule effective July 1, 2018 for Fiscal Year 2019. The monthly water bill for a typical residential account consuming 800 cubic feet (8 Ccf or 5,980 gallons) per month,

excluding any drought surcharge, is \$56.12, which represents an average increase of 9.0% for residential customers from Fiscal Year 2018 rates.

**TABLE 11: WATER SYSTEM RATES AND CHARGES⁽¹⁾
EFFECTIVE JULY 1, 2018**

Service Charge	
<i>Meter Size</i>	<i>Per Month</i>
5/8-inch and ¾-inch	\$24.63
1-inch	37.20
1 ½-inch	68.65
2-inch	106.36
Over 2-inch	Various

Charge for Water Delivered	
<i>Rate Class</i>	<i>Per Hundred Cubic Feet (Ccf)</i>
Basic Rate – Single Family ⁽¹⁾	\$3.76
Basic Rate – Multi Family	5.31
Basic Rate – Other	5.29
Elevation Band Surcharges ⁽²⁾ –	
Band 2: Pressure Zones 2 through 5	0.76
Band 3: Pressure Zones 6 and higher	1.58

⁽¹⁾ Applies to first 172 gallons per day (7 Ccf) for single family residential customers. Additional consumption by residential customers is billed at \$5.17 per Ccf for consumption between 173 and 393 gallons per day (16 Ccf), and \$6.83 for all water used in excess of 393 gallons per day. For a household using 8 Ccf in Fiscal Year 2019, the water usage charge for the first 7 Ccf at the first tier rate of \$3.76 per Ccf would be \$26.32 and the water usage charge for the additional 1 Ccf at the second tier rate of \$5.17 per Ccf would be \$5.17, for a total charge for water delivered of \$31.49; the monthly service charge would be \$24.63, resulting in a total monthly bill of \$56.12.

⁽²⁾ The water elevation surcharge provides for the increased power and facility costs needed to pump water to locations (zones) 200 or more feet above sea level.

Source: The District.

In June 2015, in connection with the adoption of rates and charges for Fiscal Years 2016 and 2017, the District's Board of Directors adopted drought surcharges that may be implemented in the event of ongoing drought conditions when the Board declares specific drought stages pursuant to its water shortage contingency plan. The drought surcharges, corresponding to increasingly severe stages of water shortages, are applied to each unit of water used during the billing period, and are calculated to recover costs of providing supplemental water, increased costs of water shortage-related customer service and loss of revenue. The District's adopted rates and charges for Fiscal Years 2018 and 2019 include an update to the system of drought surcharges (although as noted below, commencing with bills issued on and after July 1, 2016, there are no drought surcharges currently in effect for District customers). The staged system of drought surcharges and expected water use restrictions and supplemental supply needs for each of the four drought stages are summarized below.

Staged System of Drought Surcharges

Drought Stage based on Total System Storage:	0	1	2	3	4
Demand Reduction	--	Voluntary 0-15%	Voluntary 0-15%	Mandatory Up to 15%	Mandatory ≥ 15%
Supplemental Supplies	--	--	Up to 35,000 acre-feet	35,000- 65,000 acre-feet	≥ 65,000 acre-feet
Rates and Charges	Normal rates	Normal rates	Normal rates + Up to 8% surcharge	Normal rates + Up to 20% surcharge	Normal rates Up to 25% surcharge

The District’s adopted schedule of drought surcharges is set forth below. The surcharges do not apply to non-potable water.

Drought Surcharges on Total Water Flow Charge for Water Delivered

	Maximum Applicable Drought Surcharge Percentage in 4 Stages			
	1	2	3	4
All potable water flow charges	0%	8%	20%	25%

In the previous bond disclosure, the District reported that the system of drought rates included a penalty on excessive water use in stages 3 and 4 to be applicable to the single family residential customer class. Pursuant Resolution 34081-16, adopted by the Board on April 26, 2016, the Board of Directors suspended the imposition of penalties on excessive water use in stages 3 and 4, applicable to single family residences. The suspension of the implementation of excessive water use penalties took effect on May 3, 2016.

Commencing with bills issued on and after July 1, 2016, there are no drought surcharges currently in effect for District customers.

Historical Operating Results

Table 12 sets forth the historical operating results and the calculation of the debt service coverage ratio for the Water System for each of the last five Fiscal Years.

**TABLE 12: WATER SYSTEM HISTORICAL OPERATING RESULTS AND DEBT SERVICE COVERAGE⁽¹⁾
FISCAL YEARS 2013 THROUGH 2017**

	2014	2015	2016	2017	2018
WATER REVENUES⁽²⁾:					
Water Sales ⁽³⁾	\$367,547,268	\$362,135,681	\$421,239,645	\$420,293,252	\$480,745,249
Power Revenue	1,380,348	2,209,938	3,524,767	7,806,642	6,435,118
Interest	1,691,927	3,449,378	2,196,001	3,345,710	7,941,217
SCC Revenue ⁽⁴⁾	20,365,047	29,725,090	39,323,341	51,463,496	69,272,188
Seismic Rate Surcharge ⁽⁵⁾	22,628,261	22,258,683	38,793	9,270	392
Other Revenue ⁽⁶⁾	19,937,710	15,291,924	13,972,663	14,852,674	14,765,959
TOTAL WATER REVENUES	<u>\$433,550,561</u>	<u>\$435,070,694</u>	<u>\$480,295,210</u>	<u>\$497,771,044</u>	<u>\$579,160,123</u>
RATE STABILIZATION FUND TRANSFERS:					
Deposits to the Rate Stabilization Fund	\$(35,000,000)	\$(10,000,000)	\$ 0	\$ 0	\$ 0
Withdrawals from Rate Stabilization Fund for Inclusion in revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
WATER REVENUES AFTER RATE STABILIZATION TRANSFER	<u>\$398,550,561</u>	<u>\$425,070,694</u>	<u>\$480,295,210</u>	<u>\$497,771,044</u>	<u>\$579,160,123</u>
WATER OPERATION & MAINTENANCE COSTS:					
Operating Expenses	\$213,692,428	\$210,786,463	\$238,624,710	\$219,844,980	\$232,959,911
(Less Tax Receipts) ⁽⁷⁾	<u>(25,492,391)</u>	<u>(27,922,120)</u>	<u>(29,869,433)</u>	<u>(31,971,089)</u>	<u>(34,705,567)</u>
TOTAL WATER OPERATION & MAINTENANCE COSTS	<u>\$188,200,037</u>	<u>\$182,864,343</u>	<u>\$208,755,277</u>	<u>\$187,873,891</u>	<u>\$198,254,344</u>
NET WATER REVENUES	\$210,350,524	\$242,206,351	\$271,539,933	\$309,897,153	\$380,905,779
PARITY DEBT SERVICE:					
Water System Revenue Bonds ⁽⁸⁾	\$125,016,887	\$144,320,119	\$162,809,748	\$164,213,889	\$175,759,278
Parity State Loans	<u>1,400,107</u>	<u>1,400,108</u>	<u>1,400,108</u>	<u>1,400,108</u>	<u>1,401,897</u>
TOTAL PARITY DEBT SERVICE	\$126,416,994	\$145,720,227	\$164,209,856	\$165,613,997	\$177,161,175
PARITY DEBT SERVICE COVERAGE	1.66	1.66	1.65	1.87	2.15
SUBORDINATE WATER SYSTEM DEBT SERVICE⁽⁹⁾	\$ 13,562,675	\$ 335,794	\$ 340,580	\$ 3,627,676	\$ 5,011,892
TOTAL PARITY AND SUBORDINATE DEBT SERVICE	\$139,979,669	\$146,056,021	\$164,550,436	\$169,241,673	\$182,173,067
TOTAL PARITY AND SUBORDINATE DEBT SERVICE COVERAGE	1.50	1.66	1.65	1.83	2.09

⁽¹⁾ Calculated in accordance with the Indenture as footnoted.

⁽²⁾ Revenues exclude grant receipts, taxes, and certain developer contributions which are treated as contributions (not Water Revenues).

⁽³⁾ Reflects average daily billed consumption of 167.5 MGD in Fiscal Year 2014, 148.5 MGD in Fiscal Year 2015, 128.0 MGD in Fiscal Year 2016, 132.7 MGD in Fiscal Year 2017 and 144.5 MGD in Fiscal Year 2018.

⁽⁴⁾ Prior to Fiscal Year 2016, System Capacity Charge ("SCC") Revenues presented in the table above include the "buy-in" portion of SCC charges when collected and the "future water supply" portion of SCC charges when applied from the Future Water Supply Fund to offset such debt service costs. SCC Revenues are capitalized and are not recognized as operating revenues for purposes of the District's audited financial statements.

⁽⁵⁾ Seismic rate surcharge revenues are capitalized and are not recognized as operating revenues for purposes of the District's audited financial statements. The sunset of the seismic surcharge became effective July 1, 2015 and beginning with Fiscal Year 2016 the seismic surcharge is no longer being collected. However, a small amount of seismic surcharge collections were made in Fiscal Years 2016 and 2017.

⁽⁶⁾ Includes BABs Interest Subsidy Payments received in connection with the Series 2010B Bonds which are Build America Bonds.

⁽⁷⁾ Operation and Maintenance Costs exclude those expenses paid from District's share of countywide 1% property tax revenues. Under current District policy, District's share of countywide 1% property tax revenues are used to pay for operations allocable to maintenance of fire protection capacity.

⁽⁸⁾ Includes net swap payments. Debt service on the Series 2010B Bonds is gross of the BABs Interest Subsidy Payments received by the District.

⁽⁹⁾ Includes outstanding Water System commercial paper notes. Commercial paper notes debt service includes interest and a one-time principal pay down in Fiscal Year 2014 of \$13.1 million.

Source: The District.

WASTEWATER SYSTEM**Wastewater Flows**

Table 13 presents a ten-year record of wastewater flows through the District's Main Wastewater Treatment Plant, expressed as the average daily flow for each Fiscal Year.

**TABLE 13: AVERAGE DAILY WASTEWATER FLOW
(MILLION GALLONS PER DAY)**

<i>Fiscal Year Ended</i> <i>June 30</i>	<i>Flow</i>
2009	67
2010	68
2011	70
2012	62
2013	61
2014	56
2015	55
2016	56
2017	69
2018	54

Source: The District.

Sources of Funds/Summary of Revenues and Contributions

The following Table 14 sets forth the District's Wastewater System sources of funds for the five most recent Fiscal Years ended June 30, 2018. The sources of funds in the table below include certain funds that do not constitute Subordinated Wastewater Revenues for purposes of the Indenture. Subordinated Wastewater Revenues include all charges received for, and all other income and receipts derived by the District from, the operation of the Wastewater System or arising from the Wastewater System, which includes, without limitation, the District's dry weather user charges, wet weather facilities charges, wastewater capacity fees and resource recovery program revenues, as well as investment income, less Operation and Maintenance Costs. Property taxes are applied to reduce Operation and Maintenance Costs (or, prior to their retirement on April 1, 2018, to pay debt service on the District's outstanding general obligation bonds) and are not pledged to the repayment of the Wastewater System Revenue Bonds. Certain grants and contributions earned on construction which are restricted to use for specified purposes are not included in Subordinated Wastewater Revenues for purposes of the Indenture. Only Subordinated Wastewater Revenues are pledged to the payment of the Wastewater System Revenue Bonds.

**TABLE 14: WASTEWATER SYSTEM SOURCES OF FUNDS
FIVE FISCAL YEARS ENDED JUNE 30, 2018
(MILLIONS)**

	2014	2015	2016	2017	2018
Operating Revenue and Other Income:					
Dry Weather User Charges	\$ 61.8	\$ 65.1	\$ 66.0	\$ 70.0	\$ 74.7
Wet Weather Facilities Charges	19.4	21.8	21.9	23.1	24.3
Resource Recovery	10.6	11.3	11.6	11.9	11.8
Interest ⁽¹⁾	0.2	0.3	0.4	0.7	1.2
Taxes ⁽²⁾	9.9	8.5	7.9	7.8	6.8
Other Revenues ⁽³⁾	<u>6.3</u>	<u>5.6</u>	<u>5.2</u>	<u>5.3</u>	<u>7.0</u>
Total Revenues	\$108.2	\$112.6	\$113.0	\$118.7	\$125.8
Capital Contributions:					
Wastewater Capacity Fees	\$ 0.8	\$ 2.8	\$ 3.1	\$ 8.0	\$ 11.4
Earned contributions on construction	0.0	0.0	0.7	0.7	0.0
Grants	<u>0.4</u>	<u>0.3</u>	<u>0.3</u>	<u>0.2</u>	<u>0.0</u>
Total Contributions	\$ 1.2	\$ 3.1	\$ 4.1	\$ 8.9	\$ 11.4
TOTAL	<u>\$109.4</u>	<u>\$115.7</u>	<u>\$117.1</u>	<u>\$127.6</u>	<u>\$137.2</u>

⁽¹⁾ Includes interest earnings on Wastewater System Fund, including earnings on proceeds of the District's Wastewater System Revenue Bonds.

⁽²⁾ Includes the District's share of 1% countywide property tax and, prior to their retirement on April 1, 2018, the *ad valorem* tax levied for repayment of Special District No. 1's general obligation bonds.

⁽³⁾ Other Revenues includes interest subsidy payments received by the District in connection with its Series 2010B Bonds which are Build America Bonds. Other Revenues also includes revenues received from the sale of energy to the utility grid. Other Revenues excludes reimbursements and certain other receipts applied directly to operating expenses.

Source: The District.

Wastewater User Charge Revenues and Number of Connections by User Type

Table 15 sets forth a breakdown of the District's dry weather user charge revenues and number of connections by customer class for the Fiscal Year ended June 30, 2018.

**TABLE 15: WASTEWATER DRY WEATHER USER CHARGE REVENUES
AND NUMBER OF CONNECTIONS BY USER TYPE
FISCAL YEAR ENDED JUNE 30, 2018**

Type of Customer	User Charge Revenues ⁽¹⁾	Percent of Revenues	Number of Connections	Percent of Accounts
Residential	\$40,763,537	54.6%	158,805	89.7%
Commercial	28,096,150	37.6	16,819	9.5
Industrial	2,241,207	3.0	710	0.4
Public	<u>3,625,976</u>	<u>4.9</u>	<u>730</u>	<u>0.4</u>
Total ⁽²⁾	<u>\$74,726,870</u>	<u>100.0%</u>	<u>\$177,064</u>	<u>100.0%</u>

⁽¹⁾ Dry weather user charges collected on the water bill includes permit fees, pollution prevention fees and late fees. Does not include wet weather facilities charges, resource recovery treatment fees or private sewer lateral compliance certificate fees.

⁽²⁾ Totals may not add due to rounding.

Source: The District.

Rates and Charges

From Fiscal Year 2014 through Fiscal Year 2018, total annual residential wastewater charges imposed by the District have increased by an average of approximately 5.1% per Fiscal Year. The overall average rate increase, which includes the rate increases for all customer classes and rate components (including the District treatment and disposal charges and wet weather facilities charges), for the same period was approximately 6.3%. The District’s most recent increases in wastewater service rates and charges included the adoption on July 11, 2017 of system-wide rate increases of 5.0% and 5.0% for Fiscal Years 2018 and 2019, respectively. Table 16 sets forth the average residential rate increases and overall average rate increases enacted by the District for the five Fiscal Years 2014 through 2018, as well as the average residential and overall average rate increases adopted on July 11, 2017, effective on July 1, 2018, for Fiscal Year 2019:

TABLE 16: WASTEWATER RATE INCREASES

<i>Fiscal Year</i>	<i>Average Residential Rate Increase⁽¹⁾</i>	<i>Overall Average Rate Increase⁽²⁾</i>
2014	8.24%	9.00%
2015	8.29	8.50
2016 ⁽³⁾	(0.81) ⁽³⁾	5.00 ⁽³⁾
2017	4.88	5.00 ¹
2018	4.87	5.00
2019 ⁽⁴⁾	5.05 ⁽⁴⁾	5.00 ⁽⁴⁾

⁽¹⁾ Residential average rate increase includes wastewater treatment and disposal charges, wet weather facilities charges, and San Francisco Bay Pollution Prevention Fee.

⁽²⁾ Overall average rate increase includes wastewater treatment and disposal charges and wet weather facilities charges for all customer classes (including residential).

⁽³⁾ Fiscal Year 2016 rate increase is subsequent to cost of service adjustments. As a result of certain adjustments to individual wastewater component charges for wastewater flow, strength, inflow and infiltration designed to implement the results of the updated cost of service study completed by the District, different rate increases are applicable for each customer class and individual customers within each customer class depending on wastewater flow and strength and by parcel size.

⁽⁴⁾ Adopted overall rate increase for Fiscal Year 2019 to take effect on bills issued on or after July 1, 2018.

Source: The District.

The District's current (Fiscal Year 2019) wastewater rates are set forth in Table 17 below.

**TABLE 17: WASTEWATER SYSTEM RATES AND CHARGES
EFFECTIVE JULY 1, 2018**

Residential Charge:		
Service Charge (per account)	\$ 6.12	per month
Strength Charge (per dwelling unit)	8.43	per month
Flow Charge	1.20	per 100-cubic foot unit, to a maximum of 9 units
San Francisco Bay Pollution Prevention Fee	0.20	per month per dwelling unit
Non-Residential Charge:		
Service Charge (per meter)	6.12	per month
Treatment Charge	1.24-15.99	per unit, depending on the nature of the business
San Francisco Bay Pollution Prevention Fee	5.48	per month
Minimum Monthly Charge:		
Duplex	23.38	per month
Triplex	32.01	per month
Permit Accounts:		
Flow Charge	1.196	per hundred cubic feet
CODf	0.354	per pound of discharge
Suspended Solids	0.517	per pound of discharge
Wet Weather Facilities Charge:		
Small lot (0-5,000 sq. ft.)	103.74	per year per land parcel
Medium lot (5,001-10,000 sq. ft.)	162.06	per year per land parcel
Large lot (>10,000 sq. ft.)	370.44	per year per land parcel

Source: The District.

Historical Operating Results

Table 18 sets forth the historical operating results and the calculation of the debt service coverage ratio for the Wastewater System for each of the last five Fiscal Years.

**TABLE 18: WASTEWATER SYSTEM HISTORICAL OPERATING RESULTS AND DEBT SERVICE COVERAGE⁽¹⁾
FISCAL YEARS 2014 THROUGH 2018**

	2014	2015	2016	2017	2018
WASTEWATER REVENUES⁽²⁾					
Dry Weather User Charges	\$61,774,568	\$ 65,107,788	\$ 65,916,031	\$ 69,999,373	\$ 74,726,870
Wet Weather Facilities Charges	19,388,979	21,809,317	21,918,034	23,104,818	24,293,238
Interest	223,672	271,736	359,743	654,595	1,217,101
Resource Recovery	10,570,194	11,309,181	11,625,497	11,904,249	11,786,366
Wastewater Capacity Fees	805,590	2,785,820	3,142,514	7,969,321	11,418,610
Other Revenue ⁽³⁾	<u>6,315,048</u>	<u>5,558,340</u>	<u>5,168,719</u>	<u>5,253,614</u>	<u>4,477,132</u>
TOTAL WASTEWATER REVENUE	\$99,078,051	\$106,842,182	\$108,130,538	\$118,885,970	\$127,919,317
RATE STABILIZATION FUND TRANSFERS					
Deposits to the Rate Stabilization Fund	\$(2,590,000)	\$(6,500,000)	\$ 0	\$ 0	\$ 0
Withdrawals from Rate Stabilization Fund for Inclusion in Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
WASTEWATER REVENUES AFTER RATE STABILIZATION TRANSFER	<u>\$96,488,051</u>	<u>\$100,342,182</u>	<u>\$108,130,538</u>	<u>\$118,885,970</u>	<u>\$127,919,317</u>
WASTEWATER OPERATION & MAINTENANCE COSTS					
Operating Expenses	\$55,318,873	\$ 55,336,812	\$ 55,331,260	\$ 58,550,842	\$ 62,608,477
(Less Tax Receipts) ⁽⁴⁾	<u>(4,530,489)</u>	<u>(3,979,783)</u>	<u>(4,640,025)</u>	<u>(4,914,980)</u>	<u>(5,428,849)</u>
TOTAL WASTEWATER OPERATION & MAINTENANCE COSTS	<u>\$50,788,384</u>	<u>\$ 51,357,029</u>	<u>\$ 50,691,235</u>	<u>\$ 53,635,862</u>	<u>\$ 57,179,628</u>
NET WASTEWATER REVENUES	\$45,699,667	\$ 48,985,153	\$ 57,439,303	\$ 65,250,108	\$ 70,739,689
PARITY DEBT SERVICE					
Wastewater System Revenue Bonds ⁽⁵⁾	\$28,559,257	\$ 27,976,848	\$ 29,068,988	\$ 29,099,228	\$ 26,695,724
Parity State Loans	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL PARITY DEBT SERVICE	<u>\$28,559,257</u>	<u>\$ 27,976,848</u>	<u>\$ 29,068,988</u>	<u>\$ 29,099,228</u>	<u>\$ 26,695,724</u>
PARITY DEBT SERVICE COVERAGE	1.60	1.75	1.98	2.24	2.65
SUBORDINATE WASTEWATER SYSTEM DEBT SERVICE⁽⁶⁾					
	\$ 20,116	\$ 14,342	\$ 22,543	\$ 109,216	\$ 166,796
TOTAL PARITY AND SUBORDINATE DEBT SERVICE	\$28,579,373	\$ 27,991,190	\$ 29,091,531	\$ 29,208,444	\$ 26,862,520
PARITY AND SUBORDINATE DEBT SERVICE COVERAGE	1.60	1.75	1.97	2.23	2.63

(1) Calculated in accordance with the Indenture as footnoted.

(2) Wastewater Revenues exclude grant receipts, taxes and certain reimbursements.

(3) Other Revenues includes BABs Interest Subsidy Payments received in connection with Series 2010B Bonds which are Build America Bonds through Fiscal Year 2017. In Fiscal Year 2018, the subsidy is not included in Other Revenues (see Note 5). Other Revenues also includes revenues received from the sale of energy to the utility grid of \$1,099,418 in Fiscal Year 2014, \$1,092,911 in Fiscal Year 2015, \$1,246,360 in Fiscal Year 2016, \$900,014 in Fiscal Year 2017 and \$1,109,183 in Fiscal Year 2018.

(4) Wastewater Operation and Maintenance Costs exclude those expenses paid from the share of the 1% countywide *ad valorem* tax levy allocated to Special District No. 1. Under current District policy, taxes are used to pay for operations allocable to storm water processing and infiltration/inflow processing.

(5) Includes net swap payments (which swaps have subsequently been terminated). Net of capitalized interest. Debt service on the Series 2010B Bonds is gross of the BABs Interest Subsidy Payments received by the District. In accordance with amendments to the Indenture which became effective on June 14, 2017, commencing in Fiscal Year 2018 BABs Interest Subsidy Payments received by the District will be treated as an offset to interest paid by the District on the 2010B Bonds.

(6) Includes outstanding Wastewater System commercial paper notes and certain subordinate State Loans (which State Loans have subsequently been retired or refunded by Wastewater System Revenue Bonds). With respect to commercial paper notes includes interest only with no principal amortization.

Source: The District.

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EBMUD WEBSITE

Since September 1996, the District has made available general financial information on its website: (<http://www.ebmud.com>.) The site is updated periodically and is designed to assist ratepayers, investors and other interested parties in learning more about the District's financial condition. However, the information presented therein is not part of this Continuing Disclosure Information Statement and must not be relied upon in making any investment decision with respect to the District's bonds.