

BOARD OF DIRECTORS EAST BAY MUNICIPAL UTILITY DISTRICT

375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

AGENDA Tuesday, April 25, 2017

REGULAR CLOSED SESSION 11:00 a.m., Board Room

ROLL CALL:

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

ANNOUNCEMENT OF CLOSED SESSION AGENDA:

- 1. Existing litigation pursuant to Government Code section 54956.9(d)(1):
 - a. *Timothy Alford, et al. v. East Bay Municipal Utility District, et al.* Contra Costa County Superior Court, Case No. MSC16-01348
- 2. Initiation of litigation pursuant to Government Code section 54956.9(d)(4): one matter.
- 3. Conference with Labor Negotiators Bruce Heid and Glenn Berkheimer from the Industrial Employers Distributors Association, Alexander R. Coate, Sophia D. Skoda, Laura A. Brunson and David Pak pursuant to Government Code Section 54957.6: Employee Organizations International Union of Operating Engineers, Local 39; American Federation of State, County and Municipal Employees, Locals 444 and 2019; and International Federation of Professional & Technical Engineers, Local 21.

(The Board will hold Closed Session in Conference Room 8)

REGULAR BUSINESS MEETING 1:15 p.m., Board Room

ROLL CALL:

BOARD OF DIRECTORS:

• Pledge of Allegiance

PRESENTATION:

Science Fair Awards

ANNOUNCEMENTS FROM CLOSED SESSION:

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

CONSENT CALENDAR: (Single motion and vote approving 11 recommendations, including 2 resolutions.)

- 1. Approve the Special and Regular Meeting Minutes of April 11, 2017.
- 2. File correspondence with the Board.
- 3. Award a contract to the lowest responsive/responsible bidder Coast Counties Truck & Equipment in an amount, after the addition of taxes, not to exceed \$604,152 for supplying two scoop trucks to the District under Request for Quotation No. 1712.
- 4. Award a contract and authorize an agreement related to the Recoat Mokelumne Aqueduct No. 1 Phase 12 project.
 - 4.1. Award a contract to the lowest responsive/responsible bidder, Certified Coating Company, in the amount of \$4,279,282 for construction of Recoat Mokelumne Aqueduct No. 1 Phase 12 under Specification 2123.
 - 4.2. Authorize an agreement beginning on or after April 25, 2017 with Bay Area Coating Consultants, Inc., in an amount not to exceed \$580,140 for construction support services for the Recoat Mokelumne Aqueduct No. 1 Phase 12 project.
- 5. Award contracts and authorize agreements related to the Sobrante and Upper San Leandro Water Treatment Plants system improvements.
 - 5.1. Award a contract to the lowest responsive/responsible bidder, C. Overaa & Co., in the amount of \$34,169,000 for construction of the Sobrante and Upper San Leandro Water Treatment Plants Ozone Systems Improvement Project under Specification 2117.
 - 5.2. Authorize an agreement beginning on or after April 25, 2017 with Cooper Pugeda Management, Inc., in an amount not to exceed \$1,692,170 to provide construction support services for the Sobrante and Upper San Leandro Water Treatment Plants Ozone System Improvements Project.
 - 5.3. Award a sole source contract to Honeywell International, Inc., after the addition of taxes, not to exceed \$800,000, for supplying two distributed control system Experion software packages and associated hardware for the Sobrante and Upper San Leandro Water Treatment Plants.
 - 5.4. Authorize an agreement beginning on or after April 26, 2017 with Honeywell International, Inc. (Honeywell Process Solutions), in an amount not to exceed \$650,000 for engineering services for Sobrante and Upper San Leandro Water Treatment Plants control systems improvement.

CONSENT CALENDAR: (Continued)

- 6. Authorize agreements related to fully maintained and operated (FM&O) backhoe rentals.
 - 6a. Authorize agreements beginning on or after April 25, 2017 with Adam Moreno & Sons, Inc., MJH Excavating, Inc., Paladin Construction, and Sheehaul's Rock & Dirt in an amount not to exceed \$300,000, for FM&O backhoe rentals for one year.
 - 6b. Authorize additional agreements for FM&O backhoe rental services with vendors that meet District standards and offer pricing at or below the range in the proposed agreements above. These additional agreements may be issued on an as-needed basis to increase flexibility and ensure vendor availability of FM&O backhoe rental services to the District.
- 7. Authorize agreements related to fully maintained and operated (FM&O) hydro/air-vacuum excavation rental services.
 - 7a. Authorize agreements beginning on or after April 25, 2017 with Diede Construction, Inc. dba Hydro X Services, Inc., and Presidio Systems, Inc., in the total amount not to exceed \$365,000 for FM&O hydro/air-vacuum excavation rental services for one year.
 - 7b. Authorize additional agreements for FM&O hydro/air-vacuum excavation rental services with companies that meet District standards and offer pricing at or below the range in the proposed agreements above. These additional agreements may be issued on an as-needed basis to increase flexibility and ensure vendor availability of hydro/air-vacuum excavation rental services to the District.
- 8. Authorize an agreement with Brown and Caldwell in an amount not to exceed \$340,000 to conduct a water quality improvements study for the East Bayshore Recycled Water Project.
- 9. Approve the assignment of the agreement for design services during construction for the Main Wastewater Treatment Plant Digester Nos. 6, 9, 10, and 11 Coating Repairs to West Yost Associates. This agreement was previously awarded to Whitley Burchett & Associates under Board Motion No. 037-16 on February 23, 2016.
- 10. Review and approve revisions to Investment Policy 4.07, which was last revised on April 26, 2016, and affirm existing delegation of authority for the management of investments on behalf of the District to the Director of Finance, who is also acting as the Treasurer of the District.

 (Resolution)
- 11. Approve revisions to District Policy 4.02 Cash Reserves and Debt Management. (Resolution)

DETERMINATION AND DISCUSSION:

- 12. Legislative Update:
 - Receive Legislative Report No. 06-17 and consider positions on the following bills: AB 746 (Gonzalez-Fletcher) Public Health: Potable Water: Lead Testing: School Sites and Campuses; AB 1000 (Friedman) Water Conservation: Certification; AB 1587 (Levine) Invasive Species: Dreissenid Mussels; ACA 4 (Aguiar-Curry) Local Government Financing: Affordable Housing and Public Infrastructure: Voter Approval; and receive information on AB 975 (Friedman) Natural Resources: Wild and Scenic Rivers
 - Update on Legislative Issues of Interest to EBMUD
- 13. Authorize and approve the issuance of water and wastewater revenue/refunding bonds.

(Resolutions)

- 13.1. Authorize and approve the issuance of EBMUD Water System Revenue/Refunding Bonds, Series 2017A and 2017B in an aggregate principal amount not to exceed \$500 million, and approve the form and authorize the execution of certain documents, including a Supplemental Indenture, in connection with the issuance, securing and sale of such bonds.
- 13.2. Authorize and approve the issuance of EBMUD Wastewater System Revenue/Refunding Bonds, Series 2017A in an amount not to exceed \$80 million, and approve the form and authorize the execution of certain documents, including a Supplemental Indenture, in connection with the issuance, securing and sale of such bonds.
- 14. File the Water Supply Availability and Deficiency Report in conformance with District Policy 9.03 and declare that the District's water supply is sufficient for meeting customer demands in 2017.
- 15. General Manager's Report:
 - Storm Operations Update

REPORTS AND DIRECTOR COMMENTS:

- 16. Committee Reports:
 - Planning
 - Finance/Administration
- 17. Other Items for Future Consideration.
- 18. Director Comments.

ADJOURNMENT:

The next Regular Meeting of the Board of Directors will be held at 1:15 p.m. on Tuesday, May 9, 2017 in the Administration Center Board Room, 375 Eleventh Street, Oakland, California.

Disability Notice

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

Document Availability

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

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BOARD CALENDAR

Date	Meeting	Time/Location	Topics
Tuesday, April 25	Finance/Administration Committee Patterson {Chair}; Coleman; Mellon Sustainability/Energy	10:00 a.m. Training Resource Center	 Review of Revisions to District Policy 4.02 Investment Policy Annual Review Sale of Water and Wastewater Revenue Bonds Quarterly Financial Reports
	Young {Chair}; Katz; Linney		Cancellea
	Board of Directors	11:00 a.m. 1:15 p.m.	 Closed Session Regular Meeting
Tuesday, May 9	Planning Committee Mellon {Chair}; Linney; Young	9:15 a.m. Training Resource Center	
	Legislative/Human Resources Committee Coleman {Chair}; Patterson; Young	10:15 a.m. Training Resource Center	
	Board of Directors	11:00 a.m. 1:15 p.m.	Closed SessionRegular Meeting
Tuesday, May 23	Finance/Administration Committee Patterson {Chair}; Coleman; Mellon	TBD	
	Board of Directors	11:00 a.m. 1:15 p.m.	 Closed Session Regular Meeting
Monday, May 29	Memorial Day		District offices will be closed
Tuesday, June 13	Planning Committee Mellon {Chair}; Linney; Young	9:15 a.m. Training Resource Center	
	Legislative/Human Resources Committee Coleman {Chair}; Patterson; Young	10:15 a.m. Training Resource Center	
	Board of Directors	11:00 a.m. 1:15 p.m.	 Closed Session Regular Meeting

Secretary's Office

MINUTES

Tuesday, April 11, 2017

East Bay Municipal Utility District Board of Directors 375 Eleventh Street Oakland, California

Special Meeting

President Lesa R. McIntosh called to order the Special Meeting of the Board of Directors at 8:43 a.m. in the Training Resource Center. The Board met in workshop session for Budget Workshop #3.

ROLL CALL

Directors John A. Coleman, Doug Linney, Frank Mellon, Marguerite Young, and President Lesa R. McIntosh were present at roll call. Director William B. Patterson arrived at 8:44 a.m. and Director Andy Katz arrived at 8:52 a.m.

Staff present included General Manager Alexander R. Coate, General Counsel Craig S. Spencer, Director of Finance Sophia D. Skoda, Director of Engineering and Construction Xavier J. Irias, Director of Operations and Maintenance Michael J. Wallis, Acting Director of Wastewater Vincent P. De Lange, Special Assistant to the General Manager Alison A. Kastama, and Secretary of the District Rischa S. Cole.

DISCUSSION

Filed with the Board were the following: 1) Presentation entitled "FY18 & FY19 Budget Workshop #3," dated April 11, 2017; 2) Graph entitled "Long-Term Infrastructure Investment Needs"; 3) Draft Proposition 218 Notice of Public Hearing; and 4) Memorandum dated April 11, 2017 to Board of Directors, from Alison A. Kastama, Special Assistant to the General Manager regarding FY18-19 Proposed Budget and Rates Key Messages and Frequently Asked Questions.

General Manager Alexander R. Coate announced that staff would present information for consideration and discussion relating to the proposed Budget and Rates for FY18/19 and reviewed the materials provided at Board places.

Director of Finance Sophia D. Skoda presented an overview of the workshop topics which included the goals for Budget Workshop #3, a recap of Budget Workshop #2 held on March 14, 2017 and the District's budget priorities for the FY18/19 biennial budget. She reiterated that low projected water sales will impact rate increases and the FY18/FY19 budget will require use of the Water System rate stabilization fund.

Budget Priority #1 - Increase investments in and maintenance of aging infrastructure

Water Infrastructure

Director of Engineering and Construction Xavier J. Irias provided an overview of the District's Capital Improvement Program (CIP) priorities (safety, regulatory, critical reliability and cost-effectiveness) reflected in the proposed budget and costs by major program. He noted that all costs are direct, are not discounted and include an inflation factor of 3.5 percent. He discussed long-term water infrastructure investment needs and reviewed projects at treatment and distribution facilities that were completed or in progress in FY16/17. He also highlighted projects at facilities that are scheduled to begin in FY18 or FY19. Over the next five years, the District plans to invest up to \$158 million on capital improvements at each of its six water treatment plants. Next, he reported on progress made by the Pipeline Rebuild program, pipeline replacement rates as they relate to leaks, the studies and pilots underway to help extend the useful life of District assets, the planned restructuring of the Polybutylene Service Lateral Replacement Project, the ISI Envision pilot program to improve sustainability and the status of the Dublin-San Ramon Services District/EBMUD treatment plant expansion project.

Effective Management of Infrastructure

Director of Operations and Maintenance Michael J. Wallis reviewed the District's FY18/19 objectives to reduce use of fully maintained and operated (FM&O) services and overtime while increasing preventative maintenance. He reviewed historical use and some reasons for the increase including a record number of main breaks in 2015 and the startup of the Pipeline Rebuild program. To meet the objectives, two unfunded concrete finisher positions were filled in FY17 and 14 additional positions are being proposed in FY18/19. He noted that because it takes time to hire staff and order equipment, the full savings of reducing FM&O use will not be realized until FY20. He discussed the need to reduce overtime and increase preventative maintenance which includes leak detection, valve testing, appurtenance maintenance, control system maintenance and increase in the miles of pipe surveyed. To meet this objective, 11 positions are being proposed in FY18/19. With the additional positions, savings are estimated to be approximately \$550,000 in FY18 and \$1 million in FY19.

Wastewater Infrastructure Renewal

Acting Director of Wastewater Vincent P. De Lange provided an overview of the key priority areas of infrastructure renewal and a breakdown of the Wastewater FY18-22 CIP. Work includes rehabilitating interceptors, sedimentation tanks and reactor basins (24% of CIP), upgrading digesters and making building improvements to the Main Wastewater Treatment Plant Administration Building and Operations Center (14% of CIP). He discussed odor control efforts at the plant, upcoming projects and plans to update the master plan in FY19. The CIP includes \$23 million (11%) for the odor control program. Next, he gave an update on the budget implications for completing work required under the wet weather Consent Decree and for managing nutrient loading in the San Francisco Bay. The District continues to pursue opportunities to secure food waste and convert it into renewable energy products. The CIP includes \$1.3 million to maintain the existing food waste processing facility and \$10 million in contingency funding if staff identifies a cost-effective option to secure additional food waste.

<u>Budget Priority #2 - Managing the financial and operational impacts of reduced consumption</u>

Director of Operations and Maintenance Michael J. Wallis noted that water demand has dropped 33 percent since 2007 and discussed the impacts to operations and water quality. In 2016 staff had to manually treat over 70 distribution reservoirs to maintain water quality compared to a previous average of 14 per year. The District filled 11 positions in FY17 to address this issue. One position is proposed for the FY18/19 budget to manage the \$1.5 million per year program for lead testing in schools and customer tap sampling.

Recommended Budget, Rates and Charges

Director of Finance Sophia D. Skoda reviewed the recommended FY18/19 budget which is \$2.03 billion and noted that 65 percent is capital investment-related. The FY16/17 budget was \$1.83 billion. The recommended staffing plan includes adding 17.5 positions that were discussed during Budget Workshop #2. Funding for these positions will be considered six months into FY18 and the determination to fund will be based on actual water sales at that time. She reported that staff recommended the following rate increases: 9.25 percent for the Water System and 5 percent for the Wastewater System in FY18 and 9 percent for the Water System and 5 percent for the Wastewater System in FY19. Water rates will require use of the rate stabilization fund in FY18 and FY19 with replenishment of the fund by FY21. She pointed out that the proposed rates are based on average water sales of 137 million gallons per day (MGD) in FY18 and 141 MGD in FY19. She reviewed the proposed water and wastewater rate increase impacts to monthly single family residential bills noting that due to lower use, the average single family residential use rate is now calculated at 8 ccf per month, down from the historic use rate of 10 ccf per month. Next, she reviewed the redesigned, draft Proposition 218 Notice which is scheduled to mail to customers by the end of the week.

PUBLIC COMMENT

None.

DISCUSSION

There was Board discussion regarding the Proposition 218 Notice and staff was asked to make edits to the document prior to mailing. The Board thanked staff for their work and requested the following:

- Make corrections to presentation slide #14, #20 and #71 before posting on the website
- Provide chart showing wastewater charges by city listed on the EBMUD bill
- Provide information on which cities and utilities provide advance notice of street work to the District.
- Consider opportunities for Board members to reach out to city officials regarding coordinating street work.
- Provide information regarding the 2009-2014 applicant work impact to SCC charge

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- For the FY20/21 budget
 - o Revisit fixed/variable topic and provide California Urban Water Conservation Council signatories and their fixed/variable percentages
 - o Consider scenarios for expanding reserves as an alternative
 - o Discuss future water demand projections and impact on revenues.
 - When providing numbers to report information, (i.e., corroding copper laterals), provide context (total number of copper laterals).

ADJOURNMENT

President McIntosh adjourned the Special Meeting at 11:28 a.m.				
SUBMITTED BY:				
Rischa S. Cole, Secretary of the District				
APPROVED: April 25, 2017				
Lesa R. McIntosh, President of the Board				

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MINUTES

Tuesday, April 11, 2017

East Bay Municipal Utility District Board of Directors 375 Eleventh Street Oakland, California

Regular Closed Session Meeting

President Lesa R. McIntosh called to order the Regular Closed Session Meeting of the Board of Directors at 11:30 a.m. in the Administration Center Board Room.

ROLL CALL

Directors John A. Coleman, Andy Katz, Doug Linney, Frank Mellon, William B. Patterson, Marguerite Young, and President Lesa R. McIntosh were present at roll call.

Staff present included General Manager Alexander R. Coate, General Counsel Craig S. Spencer, Assistant General Counsel Xanthe M. Berry (Items 1a, 2a and 2b), Risk Manager Karen K. Curry (Item 1a and 2a), Assistant General Counsel Fred S. Etheridge (Item 1b), Director of Water and Natural Resources Richard G. Sykes (Item 1b), Director of Engineering and Construction Xavier J. Irias (Item 1b), Manager of Customer and Community Services Sherri A. Hong (Item 2b), Attorney Lourdes Matthew (Item 3) Director of Finance Sophia D. Skoda (Item 3), Human Resources Manager Laura A. Brunson (Item 3), Manager of Employee Relations David M. Pak (Item 3), and Industrial Employers Distributors Association representatives Glenn Berkheimer and Bruce Heid (Item 3).

PUBLIC COMMENT

- Addressing the Board were the following: 1) Mark Foley, President, AFSCME Local 2019, commented on negotiations; 2) Jay Morgan, Negotiating Team Member, AFSCME Local 2019, commented on Local 2019's equity adjustment proposal for Senior Programmer Analysts; 3) George Cleveland, 1st Vice-President, AFSCME Local 2019, commented on Local 2019's equity adjustment proposal for Materials Testing Technicians; and 4) Jae Park, Negotiating Team Member, AFSCME Local 2019, commented on Local 2019's equity adjustment proposal for Associate Electrical and Associate Control Engineers.

ANNOUNCEMENT OF CLOSED SESSION AGENDA

President Lesa R. McIntosh announced the Closed Session agenda. The Board convened to Conference Room 8 for discussion.

Regular Business Meeting

President Lesa R. McIntosh called to order the Regular Business Meeting of the Board of Directors at 1:18 p.m. in the Administration Center Board Room.

Regular Meeting Minutes of April 11, 2017 Page 2 of 5

ROLL CALL

Directors John A. Coleman, Andy Katz, Doug Linney, Frank Mellon, William B. Patterson, Marguerite Young, and President Lesa R. McIntosh were present at roll call.

Staff present included General Manager Alexander R. Coate, General Counsel Craig S. Spencer and Secretary of the District Rischa S. Cole.

BOARD OF DIRECTORS

President McIntosh led the Pledge of Allegiance.

ANNOUNCEMENTS FROM CLOSED SESSION

There were no announcements required from Closed Session.

PUBLIC COMMENT

- Addressing the Board were the following: 1) Jacqueline Parson, customer representing brother Rudolph Parson, requested assistance on her brother's water bill; and 2) Dick Evans, Information Services Supervisor, commented on his upcoming retirement and thanked the Board for the opportunity to serve the District.

Ms. Parson was referred to staff and the Board requested an update on the outcome.

CONSENT CALENDAR

- Item 5 was removed from the Consent Calendar for discussion.
 - Motion by Director Coleman, seconded by Director Patterson, to approve the recommended actions for Items 1-4 on the Consent Calendar, carried (7-0) by the following voice vote:
 AYES (Coleman, Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (None);
 ABSTAIN (None); ABSENT (None).
- 1. **Motion No. 050-17** Approved the Special and Regular Meeting Minutes of March 28, 2017.
- 2. The following correspondence was filed with the Board: 1) Memorandum dated April 11, 2017, to Board of Directors from Eileen M. White, Manager of Water Operations through Alexander R. Coate, General Manager, regarding the Freeport Regional Water Authority April 13, 2017 Board of Directors Special Meeting; 2) Memorandum dated April 11, 2017, to Board of Directors from Clifford C. Chan, Manager of Maintenance and Construction through Alexander R. Coate, General Manager, regarding Aitken Drive Slide in Oakland dated April 11, 2017; and 3) Speakers' Bureau and Outreach Record CY17 as of April 11, 2017.

- 3. **Motion No. 051-17** Authorized an amendment to the agreement with Engineering/Remediation Resources Group, Inc., for general environmental services approved under Board Motion No. 113-15 dated June 23, 2015, to increase the authorization by \$1,000,000, to an amount not to exceed \$1,800,000 for three years with two options to renew for an additional one-year period at \$600,000 each, for a total cost of \$3,000,000 over five years.
- 4. **Resolution No. 35031-17** Authorizing Application To The United States Department Of The Interior Bureau Of Reclamation For A WaterSMART Water Marketing Strategy Grant To Fund The Bay Area Regional Reliability Regional Water Market Project.
- 5. **Resolution No. 35032-17** Appointing Eileen M. White As Director of Wastewater (effective April 17, 2017).
- Director Mellon pulled Item 5 to congratulate Ms. White on her appointment to her new role. Ms. White thanked the Board for the opportunity, expressed her enthusiasm about continuing her service at the District and thanked her District team members for their support.
- Motion by Director Mellon, seconded by Director Patterson, to approve the recommended action for Item 5, carried (7-0) by the following voice call vote: AYES (Coleman, Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (None); ABSTAIN (None); ABSENT (None).

DETERMINATION AND DISCUSSION

6. Legislative Update.

Manager of Legislative Affairs Marlaigne K. Dumaine highlighted the bills and recommended actions contained in Legislative Report No. 05-17.

Motion by Director Young, seconded by Director Linney to approve the recommended positions in Legislative Report No. 05-17, carried (7-0) by the following voice vote:
 AYES (Coleman, Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (None); ABSTAIN (None); ABSENT (None).

Motion No. 052-17 – Received Legislative Report No. 05-17 and approved positions on the following bills: SUPPORT IF AMENDED AB 885 (Rubio) Pupil Health: Drinking Water: Lead; and SUPPORT SB 427 (Leyva) Public Water Systems: Lead User Service Lines.

Next, Ms. Dumaine provided an update on bills regarding water supply assessments and affordability and access to safe drinking water. She also discussed the State's recently released report on a long-term conservation plan and staff's review of four bills, including two budget trailer bills, related to implementing the plan.

7. General Manager's Report.

Manager of Water Operations Eileen M. White provided an update on District storm operations. She reviewed the season-to-date precipitation and cumulative runoff in the Mokelumne watershed and the snow depth and snow water content at Caples Lake.

As of April 3, the Pardee and Camanche reservoir system is encroached 24,000 acre-feet (AF) (15 percent). Remaining storage capacity in Pardee and Camanche Reservoirs has increased by 33,730 AF in the past two weeks and totals 134,965 AF.

The District began decreasing Camanche releases on April 3 from 5,0000 cubic feet per second (cfs) to 4,000 cfs. With the historic precipitation and snow in the Mokelumne watershed, the District made the maximum allowable release of 5,000 cfs from Camanche for 80 days, which is the greatest number of days at this rate of release in any year since the construction of Camanche Dam. Planned releases and storage projections are shared daily with the U.S. Army Corps of Engineers.

Next she reviewed East Bay rainfall, cumulative season-to-date precipitation and the status of local reservoirs:

- Briones Reservoir is 7.1 feet from spill.
- Lafayette Reservoir is 1.8 feet from spill.
- San Pablo Reservoir is 4.9 feet from spill.
- Upper San Leandro (USL) Reservoir is 5.5 feet from spill. USL release is 50 cfs.
- Chabot Reservoir is spilling 50 cfs.

There was a question regarding Pacific Gas and Electric's proposed plan to divest their Mokelumne facilities. Staff advised they would check into this and update the Board.

General Manager Coate noted that the Monthly Report for March 2017 had been provided in the Board's packets and reminded them of documents at their places on the dais. There was a question regarding outreach to schools in the service area during Infrastructure Week. General Manager Coate advised staff will provide the Board with a summary of overall District outreach to service area schools.

REPORTS AND DIRECTOR COMMENTS

8. Committee Reports.

- Filed with the Board were the Finance/Administration Committee Minutes of March 28, 2017.

9. Other Items for Future Consideration.

- Update on the City of Hayward's application to be the Groundwater Sustainability Agency for a portion of the East Bay Plain sub basin.

10. Director Comments.

- Council meeting on March 28 in San Ramon; Association of California Water Agencies (ACWA) Executive Committee teleconference meeting on March 31 in Oakland; ACWA Excellence in Water Leadership and Executive Committee teleconference meetings on April 3 in Oakland; Meeting with River Partners on April 5 in Oakland; Contra Costa County Mayors' Conference on April 6 in Orinda; KPIX Morning Show interview on April 9 in San Francisco; and ACWA teleconference meeting on April 10 in Oakland. He reported on plans to attend/participate in the following upcoming events: Freeport Regional Water Authority Board teleconference meeting on April 13 in Vallejo; ACWA Executive Committee teleconference meeting on April 17 in Oakland; League of Women Voters luncheon on April 19 in Oakland; HayWired kickoff and ACWA Executive Committee teleconference meetings on April 24 in Oakland.
- Director Katz had no comment.
- Director Linney reported attending the Western Service Workers Association meeting on April 10.
- Director Mellon reported attending/participating in the following events: EBMUD/EBRPD Liaison Committee meeting on March 29 in Oakland; State of the City for City of San Leandro on April 4 in San Leandro; and California Water Policy Conference April 6-7 in San Diego.
- Director Patterson reported attending the NAACP General Membership meeting on April 8 in Oakland. He reported on plans to attend/participate in the following upcoming events: Oakland Elders Council on April 12 in Oakland and Robert A. Schwartz Memorial on April 14 Oakland, Director Patterson requested that today's meeting be adjourned in Mr. Schwartz's memory.
- Director Young had no comment.
- President McIntosh had no report.

ADJOURNMENT

President McIntosh adjourned the meeting at 2:02 p.m. in honor of Robert A. Schwartz and requested that a letter of condolence be sent to his family.

SUBMITTED BY:
Rischa S. Cole, Secretary of the District
APPROVED: April 25, 2017
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		AGENDA NO. MEETING DATE	3. April 25, 2017
TITLE PU	JRCHASE OF TWO SCOOP TRUCKS		
☑ MOTION _	□ RESOLUTION —	ORDINANCE	
			14

RECOMMENDED ACTION

Award a contract to the lowest responsive/responsible bidder Coast Counties Truck & Equipment in an amount, after the addition of taxes, not to exceed \$604,152 for supplying two scoop trucks to the District under Request for Quotation (RFQ) No. 1712.

SUMMARY

The District utilizes dump trucks modified with front end buckets that are called "scoop trucks" to move debris and materials at work sites. The two new scoop trucks are needed to replace the District's existing scoop trucks which have exceeded District criteria for mileage and age. The existing trucks have been recommended for replacement based on comprehensive evaluations by District mechanics. The scoop trucks provided under this contract have an increased capacity of five cubic yards. Current District scoop trucks are three cubic yard capacity.

This item supports the District's Strategic Plan goal for Long-Term Infrastructure Investment.

DISCUSSION

Purchase of these new scoop trucks will allow staff to decrease road time while increasing the load capacity for offloading spoils and transporting materials. This new equipment will reduce the District's carbon emissions while streamlining processes and increasing efficiencies. Currently, backhoes stay at job sites to load materials into dump trucks; however these new trucks will allow backhoes to move to new job sites with the scoop trucks following to pick up and haul the materials. The scoop truck's physical footprint will increase in size, but the newer models capabilities will still provide the flexibility necessary to work in narrow quarters and roadways.

Funds Available: FY 16/17	Budget Code: 747/0200130/7999/5544		
DEPARTMENT SUBMITTING FINANCE	DEPARTMENT MANAGER or DIRECTOR Sophia D. Skoda	APPROVED Mucofir R. Cear General Manager	

Contact the Office of the District Secretary with questions about completing or submitting this form.

Purchase of Two Scoop Trucks April 25, 2017 Page 2

VENDOR SELECTION

RFQs were sent to 15 potential bidders and posted on the District's website. One bid was received and was determined to be responsible and of a reasonable cost.

SUSTAINABILITY

Economic

Funds are available in the FY16/17 budget for this contract.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Environmental

This new class of scoop truck is more efficient and will reduce the District's carbon emissions as it meets or exceeds the 2017 Federal Environmental Protection Agency and California Air Resources Board requirements, and also provides for additional capacity, thereby reducing the number of trips required/fuel used.

ALTERNATIVES

Rent scoop trucks as needed. This alternative is not recommended because renting trucks will result in higher long-term costs and adversely impact the scheduling of projects which utilize this equipment.

Do not acquire scoop trucks. This alternative is not recommended because the equipment is necessary for the support of District operations.

Attachments

P-035 – Contract Equity Program Summary

P-061 – Affirmative Action Summary

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CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

Materials and Service	es							DATE:				
Two Scoop Trucks	Two Scoop Trucks								April 17, 2017			
CONTRACTOR: Sole Bidder		QUOTATION NO.: PERCENTAGE			OF CONTRACT DOLLARS							
Coast Counties Truck & Equip San Leandro, CA	ment	1712		Availability Group		iroup	Contracting Objectives		Participation			
BID/PROPOSER'S	FIRM	'S OWNERS	HIP			White Me	n	25%	6	79.0%		
PRICE:	Ethn	icity	Gen	der	٧	Vhite Won	nen	2%	,	21.0)%	
\$604,152	W	nite	Me	en	Eti	nic Mino	rities	25%	6	0.0	%	
HART FREE W		CONTRA	CTE	QUIT	Y PAR	TICIPAT	ION	in the second	Z. Tile	100	734	
			GEN	DER			CONTRA	ACTING PARTI	CIPATION			
COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	М	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign	
PRIME: Coast Counties Truck & Equipment	\$479,852	White	х		79.0%							
SUBS:	ψ470,00 <u>2</u>	VVIIICO	^		, 0.0%							
PB Loader Corporation	\$124,301	White		x		21.0%						
	* .= .,											
		0004.450			79.0%	21.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TOTAL	CONTRAC	\$604,153 CTOR'S WC	MALCE	000					0.076	0.070	0.070	
City of the state of the state of	CONTRAC	White Me		-	Vhite Wo			Minorities	Tota	i Employ	200	
		<u> </u>	811		·	7111011			100	ii Linpicy		
No. of Emp	oloyees:	106			16			63 				
Percent of Total Emp	oloyees:	57.3%	,		8.6% 3-		34.1%		185			
MSA Labor M	arket %:	39.0%	•		33.79	6	. 27	7.3%				
MSA Labor Market Location:							Total US/	Α				
			C	MVC	MENTS		STATE OF			No.		
Contract Equity Participation	_ 79% White I	Men participa	tion a	nd 21	% White	Women	Participation	on.				
Contract Equity 7 and openion	7070 **********************************	vion participa	LIOII LI		,, ,,,,,,,							
			-		- w -							
Workforce Profile & Stateme Submitt		crimination	9		Faith Ou			A	Award Ap Recomme			
N/A					YI	ES		B	S	1 l		



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:					Ethnic Mi	nority Perce	ntages Fro	m U.S. Cer	sus Data		
Two Scoop Trucks					В	н	A/PI	Al/AN	TOTAL		
				Natio	onal	10.5	10.7	3.7	0.7	27.3	
			DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9	
Quotation #: 1712		4/17/2017	Alameda/C	C Counties	10.7	15.6	15.4	0.5	46.2		
R≖Re	cmmd					- 11			l		
P≕Pri	me S=Sub	Composition of Ownership]	1	Number of E	thnic Minor	rity Employ	ees			
Comi	nany Name	Owner/Contact Person, Address,			·	1					
	hone Numb			В	Н	A/PI	AVAN	TOTAL	PERCENT	MSA %	
RP		WM: LBE	Company Wide	3	49	8	0	60	32.4%	27.2%	
	L Counties T	ruck & Equipment	Manager/Prof	0	2	0	0	2	7.4%		
	Drendae		Technical/Sales	2	26	1	1	30	30.6%	İ	
	olittle Dr.		Clerical/Skilled	0	10	5	0	15	44.1%	ĺ	
	andro, CA	94577	Semi/Unskilled	1	-11	1	0	13	50.0%	1	
			Bay Area	1	-			0	0.0%	39.9%	
/E40\ E	60 6022		AA Plan on File:	NA	<u> </u>	Date of last	contract with		Insert Date		
(510) 5	68-6933		Co. Wide MSA:	Total USA		# Employee		185	Bay Area:	118	
	1		Co, Wide MSA.	IOMIOSA		# Limployee	S-CO. TYIGG.	100	Day Area.	110	
						-				-	
										-	
						ļ				1	
							<u> </u>			-	
						,					
S		ww	Company Wide	0	27	1	0	28	68.3%	Insert %	
PB Loa	der Corpo	ration	Manager/Prof	0	5	, 0	0	5	41.7%	Í	
Marcus	Putnam		Technical/Sales	0	16	1	0	17	89.5%		
5778 V	/. Barstoe	Ave.	Clerical/Skilled	0	3	0	0	3	50.0%		
Fresno,	CA 9372	2	Semi/Unskilled	0	3	0	0	3	100.0%		
			Bay Area	-	-	-	-	0	0.0%	39.99	
(559) 3	04-1024		Co. Wide MSA:	Insert MSA		# Employee	s-Co. Wide:	41	Bay Area:	33	
, , ,			Company Wide		-						
			Manager/Prof	-		1-	1	-	1		
			Technical/Sales			3					
			Clerical/Skilled			1-1				1	
			Semi/Unskilled			†					
			Bay Area	7	-					39.99	
			Co. Wide MSA:			# Employee	e Co Wide	<u> </u>	Bay Area:	L	
	Γ.					# Elliployee	S-CO. VVIGE.		Day Alea.	i	
			Company Wide			1				-	
			Manager/Prof							1	
			Technical/Sales								
			Clerical/Skilled			-				1	
			Semi/Unskilled		1	-				ļ	
			Bay Area								
			Co. Wide MSA:	Insert MSA		# Employee	s-Co. Wide:	33	Bay Area:	,	
			Company Wide				and the same of th			Insert %	
			Manager/Prof								
			Technical/Sales	22 2201				lig.			
			Clerical/Skilled								
			Semi/Unskilted				1				
			Bay Area				1			39.99	

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: B=Black, H=Hispanic, A/PI=Asian/Pacific Islander, and Al/AN=American Indian/Alaskan Native)



AGENDA NO.
MEETING DATE

4.1.	
April 25, 2017	

TITLE	RECOAT MOKELUMNE AQUEDUCT NO. 1 PHASE 12	
⊠ MOTIO	N □ RESOLUTION □ ORDINANCE	_

RECOMMENDED ACTION

Award a contract to the lowest responsive/responsible bidder, Certified Coating Company, in the amount of \$4,279,282 for construction of Recoat Mokelumne Aqueduct No. 1 Phase 12 under Specification 2123.

SUMMARY

The purpose of this work is to protect Mokelumne Aqueduct No. 1 from exterior corrosion which can compromise the aqueduct's reliability and longevity. Work includes abrasive blasting and recoating 21,294 linear feet of the 65-inch diameter Mokelumne Aqueduct No. 1 and performing related required work.

DISCUSSION

The elevated portion of Mokelumne Aqueduct No.1 located in San Joaquin and Contra Costa Counties is coated with a deteriorated coal tar-based paint system and is in need of recoating. Work includes grinding of welds, disposal of hazardous paint debris and spent abrasive, and performing other related required work in San Joaquin and Contra Costa Counties. See attached map for location.

This project supports the District's Strategic Plan goal for Long-Term Infrastructure Investment.

BID RESULTS

Bid documents were issued to 31 resource organizations and 30 prospective bidders. Five bids were received, ranging from \$4,279,282 to \$6,836,750. The bid summary is attached. The engineer's estimate for this work is \$4,500,176.

On March 24, 2017, the second low bidder F. D. Thomas, Inc. (Thomas) protested the bid submitted by Certified Coatings Company (Certified). Thomas asserted that Certified failed to indicate its company percentage of ethnic and gender ownership on form P-025 Employment and Data Certification. Attached

Funds Available: FY16-17; CIP #20	01487 Page 26	Budget Code: WSC\57	0\7999\2010671:25
DEPARTMENT SUBMITTING Engineering and Construction	Ymis	NAGER or DIRECTOR	APPROVED Musaufi R. Cer General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Recoat Mokelumne Aqueduct No. 1 Phase 12 April 25, 2017 Page 2

are copies of the bid protest letter dated March 24, 2017 and the District's response to Thomas dated March 30, 2017.

The lowest responsive/responsible bidder, Certified Coating Company, is licensed to perform work in California, and is not on the State Department of Industrial Relations (DIR) debarment list. Certified Coating Company is properly registered with the State DIR. In the past five years, Certified Coating Company has not filed a Government Code Claim, nor initiated any litigation against the District.

SUSTAINABILITY

Economic

This item is included in the FY16-17 budget for the Mokelumne Aqueduct Recoating Project.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Work under this contract is subject to the payment of current prevailing wages according to determinations for each craft as established by the Director of Industrial Relations of the State of California.

Local 444 was notified of this contract on September 30, 2016 and did not raise any specific issues related to this contract.

Environmental

Notices of Exemption were posted with the San Joaquin County Clerk and Contra Costa County Clerk on September 21, 2016 and October 7, 2016, respectively.

ALTERNATIVES

<u>Do not perform the work.</u> This alternative is not recommended because failure to recoat the Aqueduct will result in corrosion of this steel pipeline in the harsh Delta environment.

<u>Perform the work with District forces.</u> This alternative is not recommended because District forces are not equipped to blast and paint on such a large scale.

Attachments Location Map

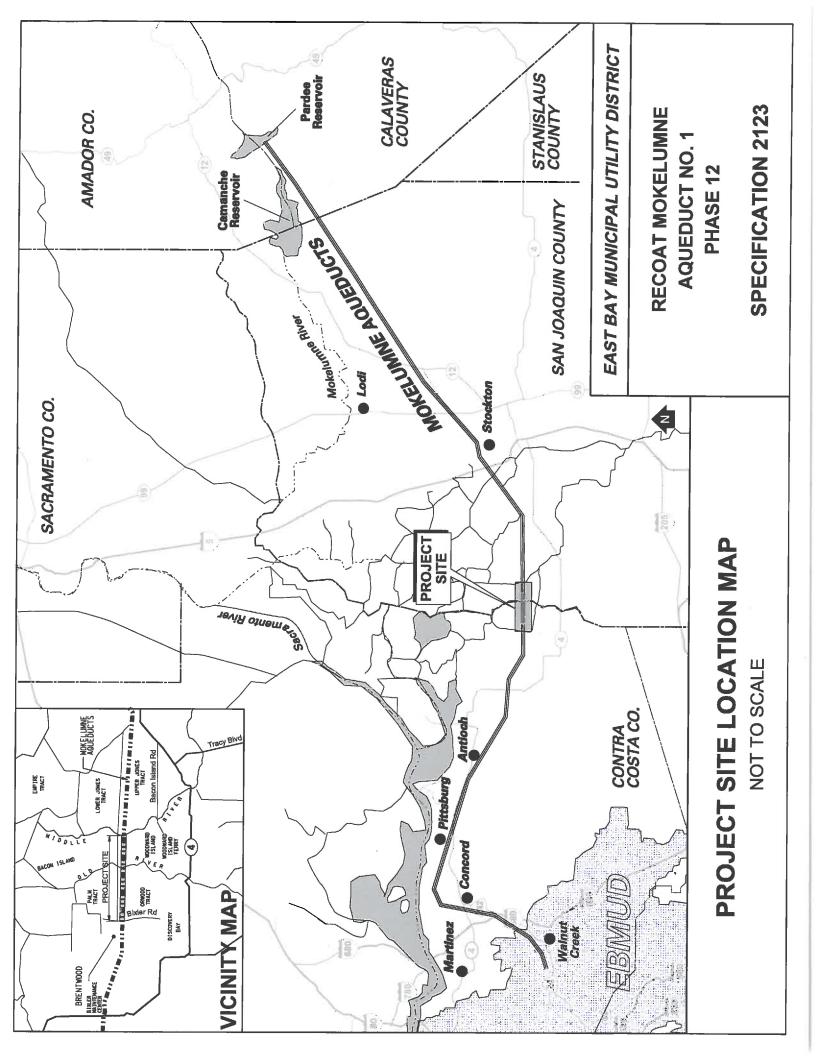
Bid Summary

F.D. Thomas' bid protest letter dated March 24, 2017

District response letter to F.D. Thomas dated March 30, 2017

Contract Equity Program Summary (P-035)

Affirmative Action Summary (P-061)



EAST BAY MUNICIPAL UTILITY DISTRICT SPECIFICATION 2123

RECOAT MOKELUMNE AQUEDUCT NO. 1 PHASE 12

Bids Opened March 15, 2017

	BIDDER	TOTAL AMOUNT BID
1.	Certified Coatings Company 2320 Cordelia Rd. Fairfield, CA 94534 (707) 639-4414	\$4,279,282
2.	F.D. Thomas, Inc. 200 Harris Ave. Sacramento, CA 95838 (916) 922-1505	\$5,287,418
3.	Liberty Maintenance, Inc. dba Ohio Liberty Maintenance, Inc. 777 N. Meridian Rd. Youngstown, OH 44509 (330) 755-7711	\$6,312,000
4.	Jeffco Painting & Coating, Inc. (SBE/DVBE) 1260 Railroad Ave., Bldg. 750 Vallejo, CA 94592 (707) 562-1900	\$6,780,000 / \$6,556,035.90*
5.	Abhe & Svoboda, Inc. 18100 Dairy Ln. Jordan, MN 55352 (952) 447-6025	\$6,836,750

SBE/DVBE - Small Business Enterprise or Disabled Veteran Business Enterprise

Engineer's Estimate:

\$4,500,176

^{*} Effective Bid Amount due to SBE/DVBE discount (5% of the low bid amount, not to exceed \$250,000)



RECEIVED

MAR 2 / 2017

Specifications & Eng Support

March 24, 2017

Director of Engineering and Construction East Bay Municipal Utility District P.O. Box 24055 Oakland, California 94623-1055

Specifications and Engineering Support Section (MS#503) East Bay Municipal Utility District 375 11th Street Oakland, CA 94607

Re:

Protest of Process of Award to Certified Coatings

SPECIFICATION 2123

RECOAT MOKELUMNE AQUEDUCT NO. 1 - PHASE 12

Dear Director of Engineering and Construction:

Per EBMUD Specification Section 00 21 13 Instructions to Bidders Paragraph 24 A. states: "Submitting a Protest -The protest shall be in writing, addressed to the Director of Engineering, and received by the District no later than 7 work days after the date of the bid opening. The protest document shall contain a detailed and complete statement as to the basis of the protest and shall include the name, address, and telephone number of the protestor or its authorized representative."

On this day March 24th, the 7th day after bid opening F.D. Thomas, Inc. is hereby filing a bid protest for the bid submitted by Certified Coatings Company for Specification 2123 Recoat Mokelumne Aqueduct No.1 - Phase 12 Contract.

On bid form P-025 the top paragraph states:

- 1. "COMPLETION OF THIS FORM IS REQUIRED FOR ALL BIDS AND PROPOSALS. AN IMPROPER OR INCOMPLETE FORM MAY RESULT IN REJECTION OF YOUR BID OR PROPOSAL OR TERMINATION OF YOUR CONTRACT". Furthermore the same form states
- "The East Bay Municipal Utility District REQUIRES the completion of this form when submitting any formal bid in response to a Notice to Contractors (NTC), Request for Statement of Qualifications (RSOQ), Request for Quotation (RFQ), or Request for Proposal (RFP) for materials, equipment, construction or professional or general services. Bidder/Proposer who fails to complete all applicable sections of this form may be denied contracts with the District.

In reviewing the complete bid package submitted by Certified Coatings Company we are finding that Certified Coatings Company has failed to indicate it's company's percentage of ethnic and gender of ownership, and is hereby requesting the district to reject the bid submitted by Certified Coatings Company based on note (1.) above. Furthermore, we are requesting the district to deny contract to Certified Coatings Company based on note (2) above.

Please take time to review the case and respond to us promptly.

Respectfully,

Mike Kostenko Discitally signed by Mike Kostenko DN: cn-Mikle Kostenko, o=F.D. Thomas, out. o= United History (1) Date: 2017.03 24 11:30:37-07:00

Mike Kostenko Vice President - Estimating 217 Bateman Drive Central Point, OR 97502 F.D. Thomas, Inc. 541.664.3010 Office 541.324.4348 Mobile MikeK@fdthomas.com

SPEC 2123 - Recoat Mokelumne Aqueduct No. 1 - Phase 12



EMPLOYMENT DATA AND CERTIFICATION INSTRUCTIONS (P-025)

COMPLETION OF THIS FORM IS REQUIRED FOR ALL BIDS AND PROPOSALS. AN IMPROPER OR INCOMPLETE FORM MAY RESULT IN REJECTION OF YOUR BID OR PROPOSAL OR TERMINATION OF YOUR CONTRACT

The East Bay Municipal Utility District REQUIRES the completion of this form when submitting any formal bid in response to a Notice to Contractors (NTC), Request for Statement of Qualifications (RSOQ), Request for Quotation (RFQ), or Request for Proposal (RFP) for materials, equipment, construction or professional or general services. Bidder/Proposer who fails to complete all applicable sections of this form may be denied contracts with the District.

Note: if you have difficulty borholds to this shook a head he shook a hart of the high high high

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PARENT OC	MPANY M.	i alelie	~ C	8	2			PRIME	
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	232	O CON	elia R	to East	field, c	1 0402	1	Submit a separate	P-25 form for each cker/aupplier doing
MAILING AD		29	CHIPC IN	FULL	FIELD, C.	פפרור זי	7	work for \$70,000 or	r more.
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PARTNames of Part	SERSHIP DESITION OF Percent of eth	OWNERSHIP Thic and gende	(L) Limited r ownership be Hispanic/	low	Asian-Pacific	Asian- Indian American	Native American	Other	Refuse to State
PARTNames of Part	SERSHIP DSITION OF Percent of eth Non-Hisp	OWNERSHIP Anic and gende anic Origin Black/	(L) Limited. r ownership be	low	Asian-Pacific	Indian			Refuse
PARTN PARTN PARTN Ames of Part	SERSHIP DSITION OF Percent of eth Non-Hisp	OWNERSHIP Anic and gende anic Origin Black/	(L) Limited. r ownership be	low	Asian-Pacific	Indian			Refuse
PARTNames of Part	SERSHIP DSITION OF Percent of eth Non-Hisp	OWNERSHIP Anic and gende anic Origin Black/	(L) Limited. r ownership be	low	Asian-Pacific	Indian			Refuse



VIA FAX AND FEDERAL EXPRESS

March 30, 2017

Mr. Mike Kostenko, Vice President - Estimating F. D. Thomas, Inc. 217 Bateman Drive Central Point, OR 97502

Subject: Specification 2123 – Recoat Mokelumne Aqueduct No. 1 - Phase 12: Bid Protest by F. D. Thomas, Inc.

Dear Mr. Kostenko:

We have reviewed your letter dated March 24, 2017 and have determined that there is no basis for deeming Certified Coatings Company's (Certified) bid non-responsive. Specifically, you believe:

1. Certified has failed to indicate its company's percentage of ethnic and gender ownership on Form P-025 Contract Equity Participation; it is incomplete and may result in rejection of its bid per the P-025 instructions.

Our finding and conclusions are as follows:

- 1. Certified's Form P-025 indicates that it is a publicly held corporation. Therefore, ownership is dynamic. The District's Contract Equity Office has reviewed the ownership information and determined that the Form P-025 submitted by Certified is acceptable per Instructions to Bidders Article 9.
- Per Instructions to Bidders Article 9, the District reserves the right to waive technical defects, as the interests of the District may require. Even if Certified's Form P-025 could be found incomplete, the District would consider this a waiveable irregularity that is curable and has no impact on the bid price.

Based on our findings, F.D. Thomas's bid protest is hereby denied. Should you wish to file an appeal of this determination, you have five working days from the receipt of this

Mr. Mike Kostenko. Vice President – Estimating F. D. Thomas, Inc.
Specification 2123 – Recoat Mokelumne Aqueduct No. 1 - Phase 12 March 30, 2017
Page 2

letter to set forth your grounds for appeal in accordance with Article 26 of the Instructions to Bidders.

Sincerely,

Xavier J. Irias

Director of Engineering and Construction

XJI:EJC:ejc



CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

SPECIFICATION NO.: 2123								DATE:			
Recoat Mokelumne Aqueduct No. 1 Phase 12								March 22, 2017			
CONTRACTOR:					7	PERC	ENTAGE	OF CONTE	RACT DO	LLARS	
Certified Coatings Company Fairfield, CA 94534					Av	ailability G	Group	Contracting	Objectives	Partici	pation
BID/PROPOSER'S	FIRM	'S OWNERS	HIP			White Me	en	25%	6	99.9	5%
PRICE:	Ethn	icity	Ger	nder	٧	Vhite Won	nen	9%	i	0.0	%
\$4,279,282	W	nite	M	en	Et	hnic Mino	rities	25%	6	0.0	5%
ac imaliant as		CONTRA	CT E	QUIT	Y PAR	TICIPAT	ION	AFE FIR		enn.w	
			GEN	DER			CONTRA	ACTING PARTI	CIPATION		
COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	М	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME:					1-						
Certified Coatings Company	\$3,457,282	White	х		80.79%						
SUBS:											
Tully Consulting Group	\$2,000	Hispanic	х				0.05%				
Kleen Blast	\$700,000	White	x		16.36%						
		140.4			0.000/						
Carboline	\$120,000	White	X		2.80%						
	ļ									-	
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	<u> </u>	£4 270 282	<u> </u>		99.95%	0.0%	0,05%	0.0%	0.00%	0.0%	0.0%
TOTAL	CONTRAC	\$4,279,282 CTOR'S WO	JOVE	OP	1				0.0078	0.070	0.070
	CONTRAC	White M			White Wo				Tota	al Employ	000
			<u></u>	<u> </u>)III 0 II	Ethnic Minorities		Total Employees		
No. of Em	ployees:	23			3			49			
Percent of Total Em	30.7%	0.7%			4.0% 6		5.3%		75		
MSA Labor N	39.0%	6 33.7%		2	27.3%						
MSA Labor Market Location:							Total US	A			
COMMENTS											
Contract Equity Participation - 99.95% White Men participation and 0.05% Ethnic Minority participation.											
Workforce Profile & Stateme		rimination				utreach l		n	Award Ap		
Submit	ted	-		Re		nt Satisf	ried	#	Recomm	17	
NA					Y	ES 			th		



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:			Ethnic Minority Percentages From U.S. Census Data							
Recoat Mokelumne Aqueduct No. 1 Phase					В	Н	A/PI	Al/AN	TOTAL	
12		Natio	nal	10.5	10.7	3.7	0.7	27.3		
		DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9	
Spec. No.	: 2123	3/22/2017	Alameda/C0		10.7	15.6	15.4	0.5	46.2	
R=Recmmd P=Prime S=Sub	Composition of Ownership	0,222		lumber of E			ees			
	nme, Owner/Contact Person, Address, lumber		В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %	
RP	WM	Company Wide	3	40	3	0	46	61.3%	27.3%	
Certified Coat	tings Company	Manager/Prof	0	3	2	0	5	35.7%		
David Morris	. ,	Technical/Sales	2	1	0	0	3	42.9%		
2320 Cordelia	a Rd.	Clerical/Skilled	1	36	11	0	38	70.4%		
Fairfield, CA	94534	Serni/Unskilled	0	0	0	0	0	0.0%		
		Bay Area	0	0	0	0	0	0.0%	39.9%	
707-639-4419	9	AA Plan on File:	NA		Date of last	contract with	District:	NA		
		Co. Wide MSA:	Total USA		# Employee	s-Co. Wide:	75	Bay Area:	0	
s	WW: LBE	Company Wide	0	21	2	0	23	35.9%	38.5%	
Kleen Industr		Manager/Prof	1 0	2	1 0	0	2	18.2%		
Fionn O'Neill	iai Gei vices	Technical/Sales	ō	0	0	0	0	0.0%		
50 Oak Court	Ste. 210	Clericat/Skilled	0	3	0	0	3	23.1%		
Danville, CA	•	Semi/Unskilled	0	16	2	0	18	52.9%		
Danimo, or i		Bay Area	0	6	0	0	0	0.0%	39.9%	
925-831-9800	1	Co. Wide MSA:	Contra.Costa			s-Co, Wide:	64	Bay Area:	0	
			85	44	17	5	151	17.9%	14.1%	
	Publicly Held Corporation	Company Wide						- STA	14.17	
Carboline Co		Manager/Prof	23	11	2	0	36 29	14.3%		
David Morlen		Technical/Sales	17	10 3	3	3	19	11.8% 9.5%		
2150 Schuetz		Clerical/Skilled	10	20	10	2	67	46.2%		
St. Louis, MC	63146	Semi/Unskilled	35		7 7 9				20.00	
		Bay Area	0	0	0	0	0	0.0%	39.9%	
314-644-1000	0 x2154	Co. Wide MSA:	Insert MSA		# Employee	s-Co. Wide:	842	Bay Area:	0	
				-						
						1		20		
						1				
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Р	WM	Company Wide	12	106	5	4	127	41.9%	27.3%	
F.D Thomas,	Inc.	Manager/Prof	1	6	1	0	0	16.7%		
Terra Wells		Technical/Sales	0	0	0	0	0	0.0%		
217 Bateman Dr.		Clerical/Skilled	11	100	4	4	119	47.4%		
Central Point, OR 97502		Semi/Unskilled	0	0	0	0	0	0.0%		
		Bay Area	7	64	3	1	75	53.6%	39.99	
541-664-3010	0	Co. Wide MSA:	Total USA	<u> </u>	# Employee	s-Co. Wide:	303	Bay Area:	140	
P	WM	Company Wide	8	34	1	2	45	54.2%	48.49	
Liberty Mainter		Manager/Prof	0	0	1	0	1	10.0%		
Christine Kali	rty Maintenance, Inc. ikatzars	Technical/Sales	0	1	0	0	1	100.0%		
777 N. Merid		Clerical/Skilled	8	33	0	2	43	59.7%	ł f	
Yougstown, (Semi/Unskilled	0	0	0	0	0	0.0%		
. Jugatomii, C	Ç., , 1000	Bay Area	1 2	17	1	2	22	78.6%	39.99	
			<u> </u>	1 1/		es-Co. Wide:	<u></u>			
330-755-771	1	Co. Wide MSA:	California					Bay Area:	28	

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: B=Black, H=Hispanic, A/PI=Asian/Pacific Islander, and Al/AN=American Indian/Alaskan Native)



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

National 10.5 10.7 3.7 0.7	Title:		Ethnic Minority Percentages From U.S. Census Data							
National 10.5 10.7 3.7 0.7	Recoat Mokelumne Aqueduct No. 1 Phase				В	Н	A/PI	Al/AN	TOTAL	
R=Recmmd		12		Natio	onal	10.5	10.7	3.7	0.7	27.3
Number of Ethnic Minority Employees Number of Ethnic Minority Employees			DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9
Number of Ethnic Minority Employees Number of Ethnic Minority Employees	Construction Agreement		3/22/2017	Alameda/Co	C Counties	10.7	15.6	15.4	0.5	46.2
B	P≖Prime	Composition of Ownership		ı	Number of E	thnic Mino	ity Employ	ees		
Deficition Def	Company Nam	ne, Owner/Contact Person, Address, mber		В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %
Jeff Dortch Technical/Sales 0 0 0 0 0 0.0% 1260 Railroad Ave. Clerical/Skilled 3 16 2 1 22 52.4% Vallejo, CA 94592 Semi/Unskilled 0 3 0 0 3 60.0% 707-333-2749 Co. Wide MSA: 9 Bay Area Counties # Employees-Co. Wide: 56 Bay Area: P WM Company Wide 25 52 17 6 100 38.2% Abhe & Svoboda, Inc. Manager/Prof 1 5 1 0 7 18.4% Thomas L. Stockert Technical/Sales 1 0 0 0 1 20.0% 18100 Dairy Lane Clerical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Bay Area 0 0 0 0 0 0.0%	,	WM: SBE	Company Wide	3	19	2	1	25	44.6%	39.9%
1260 Railroad Ave. Clerical/Skilled 3 16 2 1 22 52.4%	Jeffco Painting	& Coating Inc.	Manager/Prof	0	0	0	0	0	0.0%	
Vallejo, CA 94592 Semi/Unskilled 0 3 0 0 3 60.0% Bay Area 3 19 2 1 25 44.6% 707-333-2749 Co. Wide MSA: 9 Bay Area Counties # Employees-Co. Wide: 56 Bay Area: P WM Company Wide 25 52 17 6 100 38.2% Abhe & Svoboda, Inc. Manager/Prof 1 5 1 0 7 18.4% Thomas L. Stockert Technical/Sales 1 0 0 0 1 20.0% 18100 Dairy Lane Clerical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Bay Area 0 0 0 0 0 0.0%	_	-	Technical/Sales	0	0	0	0	0	0.0%	
Bay Area 3 19 2 1 25 44.6%	260 Railroad	Ave.	Clerical/Skilled	3	16	2	1	22	52.4%	
707-333-2749 Co. Wide MSA: 9 Bay Area Counties # Employees-Co. Wide: 56 Bay Area: P WM Company Wide 25 52 17 6 100 38.2% Abhe & Svoboda, Inc. Manager/Prof 1 5 1 0 7 18.4% Thomas L. Stockert Technical/Sales 1 0 0 0 1 20.0% 18100 Dairy Lane Clerical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Semi/Unskilled 1 6 9 4 20 60.6% Bay Area 0 0 0 0 0 0.0%	/allejo, CA 945	592	Semi/Unskilled	0	3	0	0	3	60.0%	
707-333-2749 Co. Wide MSA: 9 Bay Area Counties # Employees-Co. Wide: 56 Bay Area: P WM Company Wide 25 52 17 6 100 38.2% Abhe & Svoboda, Inc. Manager/Prof 1 5 1 0 7 18.4% Thomas L. Stockert Technical/Sales 1 0 0 0 1 20.0% 18100 Dairy Lane Clerical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Semi/Unskilled 1 6 9 4 20 60.6% Bay Area 0 0 0 0 0.0% 0		1	Bay Area	3	19	2	1	25	44.6%	39.9%
P WM Company Wide 25 52 17 6 100 38.2% Abhe & Svoboda, Inc. Manager/Prof 1 5 1 0 7 18.4% Thomas L. Stockert Technical/Sales 1 0 0 0 1 20.0% 18100 Dairy Lane Clerical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Semi/Unskilled 1 6 9 4 20 60.6% Bay Area 0 0 0 0 0 0.0%	707_333_2740									56
Abhe & Svoboda, Inc. Manager/Prof 1 5 1 0 7 18.4% Thomas L. Stockert Technical/Sales 1 0 0 0 1 20.0% 18100 Dairy Lane Cierical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Semi/Unskilled 1 6 9 4 20 60.6% Bay Area 0 0 0 0 0 0 0 0.0%		NA/AA			-	1	i			27.3%
Thomas L. Stockert Technical/Sales 1 0 0 1 20.0% 18100 Dairy Lane Clerical/Skilled 22 41 7 2 72 38.7% Jordan, MN 55352 Semi/Unskilled 1 6 9 4 20 60.6% Bay Area 0 0 0 0 0 0 0 0.0%			1.					1		21.3%
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Jordan, MN 55352 Semi/Unskilled 1 6 9 4 20 60.6% Bay Area 0 0 0 0 0 0.0%										
Bay Area 0 0 0 0 0 0.0%	-									
	lordan, MN 55	352	Semi/Unskilled	11	6			1		
952-447-0777			Bay Area	0	0	0	0	0		39.9%
	52-447-0777		Co. Wide MSA:	Total USA		# Employee	s-Co. Wide:	262	Bay Area:	0
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WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: B=Black, H=Hispanic, A/Pt=Asian/Pacific Islander, and Al/AN=American Indian/Alaskan Native)



AGENDA NO.
MEETING DATE

April 25 2017	4.2.	
7 Ipin 25, 2017	April 25, 2017	

TITLE

RECOAT MOKELUMNE AQUEDUCT NO. 1 PHASE 12 – CONSTRUCTION SUPPORT SERVICES

☑ MOTION————	□ RESOLUTION	 □ ORDINANCE	

RECOMMENDED ACTION

Authorize an agreement beginning on or after April 25, 2017 with Bay Area Coating Consultants, Inc. in an amount not to exceed \$580,140 for construction support services for the Recoat Mokelumne Aqueduct No. 1 Phase 12 project. In awarding this contract, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

District staff will perform construction management for the Recoat Mokelumne Aqueduct No. 1 Phase 12 project. Bay Area Coating Consultants, Inc. will provide supplemental personnel to blend with District staff.

DISCUSSION

The Recoat Mokelumne Aqueduct No. 1 Phase 12 project is for the purpose of protecting Aqueduct No. 1 from exterior corrosion. Work includes abrasive blasting and recoating of 21,300 linear feet of 65-inch diameter steel pipeline. The construction duration is expected to be approximately 30 months from April 2017 to September 2019. The contractor is allowed to work only during the dry-weather season and will demobilize from November through March of each year.

District staff will perform the construction management of the work and will provide a construction manager and office engineer. The consultant will augment District staff and provide a specialized construction inspector with National Association of Corrosion Engineers (NACE) Coating Inspector Program Certification Level 3.

This project supports the District's Strategic Plan goal for Long-Term Infrastructure Investment.

Funds Available: FY16/17; CIP #20	01487 Page 26	Budget Code: WSC/572/7999/2010672/5231				
DEPARTMENT SUBMITTING Engineering & Construction	DEPARTMENT MANA Xavie	1	APPROVED Metal Manager			

Contact the Office of the District Secretary with questions about completing or submitting this form.

Recoat Mokelumne Aqueduct No. 1 Phase 12 – Construction Support Services April 25, 2017
Page 2

CONSULTANT SELECTION

Requests for proposals were sent to three firms, including one minority-owned firm with expertise in coatings inspection and posted on the District's website. One firm submitted a proposal. Bay Area Coating Consultants, Inc. was selected based on qualifications and ability to provide the necessary expertise to blend with District staff.

SUSTAINABILITY

Economic

This item is included in the FY16-17 budget for the Mokelumne Aqueduct Recoating project. The NACE Level 3 certified coatings inspector will assure the coatings contractor completes work in accordance with the contract specifications and NACE procedures. This will greatly improve the exterior corrosion protection of Aqueduct No. 1 which will improve the reliability and longevity of the aqueduct.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Work under this contract is subject to the payment of current prevailing wages according to determinations for each craft as established by the Director of Industrial Relations of the State of California.

Locals 2019 and 21 were notified of the contract on November 22, 2016 and did not raise any specific issues related to this contract.

Environmental

A Notice of Exemption was filed with San Joaquin and Contra Costa County Clerks on September 21, 2016, and October 7, 2016, respectively.

ALTERNATIVES

<u>Perform the work with a different consultant</u>. This alternative is not recommended. The Bay Area Coating Consultants, Inc. team has the best qualifications and experience for this project.

<u>Do not authorize the agreement</u>. This alternative is not recommended as the project is necessary to protect a critical facility and will require comprehensive NACE Level 3 certified inspection at all times.

Recoat Mokelumne Aqueduct No. 1 Phase 12 – Construction Support Services April 25, 2017
Page 3

<u>Perform the work with District forces</u>. This alternative is not recommended as District staff cannot perform the specialized inspection needed for the required work.

Attachments

P-035 – Contract Equity Program Summary P-061 – Affirmative Action Summary

I:\Sec\2017 Board Related Items\042517 Board Agenda Items\E&C\Mokelumne Aqueduct No. 1 – Phase 12 – Construction Support Services.doc



CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

TITLE Brofessional Samiles		4						DATE:		-		
Professional Service	_								March 11, 2017			
Recoat Mokelumne Services	Aqueduct I	No. 1 - Phas	e 12	- Co	nstructio	on Supp	ort		IVICII	011 11, 20	/ /	
CONTRACTOR:						PERC	ENTAGE	OF CONTR	RACT DO	LLARS	1 TO 1	
Bay Area Coating Consultants, Denair,CA 95316	, Inc.	Sole Prop Small Bu			Ava	nilability G	roup	Contracting Objectives		Participation		
BID/PROPOSER'S	FIRM	'S OWNERSI	HIP			White Me	n	25%	6	100.	0%	
PRICE:	Ethn	icity	Gen	der	٧	hite Won	nen	6%	,	0.0	%	
\$580,140	Wh	nite	Me	en	Eti	nnic Mino	rities	25%	6	0.0	%	
		CONTRA	CT E	ฉบเา	Y PAR	TICIPAT	ION	A Sept V			100	
	ESTIMATED		GEN	DER			CONTRA	CTING PARTIC	CIPATION			
COMPANY NAME	AMOUNT	ETHNICITY	М	W	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign	
PRIME:												
Bay Area Coating Consultants, Inc.	\$580,140	White	Х		100.0%							
SUBS:												
None												
	-											
TOTAL		\$580,140			100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
All sell in the sell in the	CONTRAC	TOR'S WO	RKF	ORC	E PRO	FILE (Fr	om P-025	Form)		15 Paris	ALC:	
		White Me	n	V	Vhite Wo	men	Ethnic	Minorities	Tota	l Employe	ees	
No. of Emp	ployees:	2			13			8			-	
Percent of Total Emp	ployees:	8.7%			56.5%	6	34	1.8%		23		
MSA Labor M	arket %:	33.0%			28.49	6	28	3.6%				
MSA Labor Market L	ocation:						Stanislau	S				
			CC	NMC	MENTS	100	The second	3 5 341	400	Carlot of	Serie.	
Contract Equity Participation -	- 100.0% Wh	nite Men par	ticipa	ation								
Workforce Profile & Statemer Submitte		rimination	G		Faith Ou			A.	Award App	proval		
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INA									XQ/			

Page: 1 of 1

(P-035 - 7/11)



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:	9:			Ethnic Min	ority Perce	ntages Fro	m U.S. Cer	nsus Data					
Recoa	at Mokelumne Aqueduc				В	Н	A/PI	Al/AN	TOTAL				
12	2 - Construction Suppor	rt Services	Natio	onal	10.5	10.7	3.7	0.7	27.3				
		DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9				
Professional	l Services Agreement	3/11/2017	Alameda/C	C Countles	10.7	15.6	15.4	0.5	46.2				
R=Recmmd P=Prime S=Sub	Composition of Ownership			Number of E	thnic Minor	ity Employ							
	e, Owner/Contact Person, Address, aber		В	н	A/PI	AI/AN	TOTAL	PERCENT	MSA %				
RP	WM: SBE	Company Wide	0	_ 1	0	0	1	4.3%	28.6%				
Bay Area Coatin	ng Consultants, Inc.	Manager/Prof	0	1	3	3	7	35.0%					
Ed Darrimon		Technical/Sales	0	0	0	0	0	0.0%					
5401 Powell Ro	ad	Clerical/Skilled	0	0	1	0	0	0.0%					
Denair, CA 9531	16	Semi/Unskilled	0	0	0	0	0	0.0%					
		Bay Area	0	0	0	0	0	0.0%	39.99				
209-669-3666		AA Plan on File:	NA	·	Date of last	contract with	District:	8/8/2016					
		Co. Wide MSA:	Stanislaus		# Employee		23	Bay Area:	0				
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AGENDA NO.
MEETING DATE

5.1.	
April 25, 2017	

TITLE

SOBRANTE AND UPPER SAN LEANDRO WATER TREATMENT PLANTS OZONE SYSTEMS IMPROVEMENT

⊠ MOTION————	□ RESOLUTION	□ ORDINANCE —————
	- ICOOLOTTON	2 ORDINANCE

RECOMMENDED ACTION

Award a contract to the lowest responsive/responsible bidder, C. Overaa & Co., in the amount of \$34,169,000 for construction of the Sobrante and Upper San Leandro (USL) Water Treatment Plants (WTPs) Ozone Systems Improvement Project under Specification 2117.

SUMMARY

Work includes furnishing and installing new ozone systems and supporting equipment at the District's Sobrante and USL WTPs to improve water quality and ozone system reliability, efficiency, and safety at the plants.

DISCUSSION

Constructed in 1991, the existing air-fed ozone systems at Sobrante and USL WTPs have significant maintenance and reliability issues and limited technical support. During the summer months, the existing ozone systems do not have the capacity required to remove taste and odor (T&O) causing compounds and meet water demand. To increase capacity and ensure safety and long-term reliability of the ozone systems, the District will install larger, more efficient liquid oxygen-fed ozone systems, including liquid oxygen tanks, ozone generators and power supply units, hydrogen peroxide storage and feed systems, a potassium permanganate system, and new heating and ventilation systems for the ozone buildings.

This project supports the District's Strategic Plan goal for the Long-Term Infrastructure Investment.

BID RESULTS

Bid documents were issued to 28 resource organizations and 48 prospective bidders. Two bids were received, ranging from \$34,169,000 to \$35,390,000. The bid summary is attached. The engineer's estimate for this work is \$32,318,000. The difference between the engineer's estimate and the low bid is due to the contractor's higher contingency for schedule constraints and unforeseen conditions to perform

Funds Available: FY16-17; CIP #20	03499 Page 53	Budget Code: WSC\570\7	999\2010054:25
DEPARTMENT SUBMITTING	DEPARTMENT MANA		APPROVED
Engineering and Construction	Xavier	r J. Irias	Melense R. Cers

Contact the Office of the District Secretary with questions about completing or submitting this form.

Sobrante and Upper San Leandro WTPs Ozone Systems Improvement April 25, 2017 Page 2

demolition and construction within the existing facilities, which were not fully accounted for in the engineer's estimate. In addition, the current market conditions favor bidders because of the volume of work bidding state-wide at this time. In a competitive market, bids are higher and complex projects involving specialty work tend to be even more vulnerable to adverse market trends.

The lowest responsive/responsible bidder, C. Overaa & Co., is licensed to perform work in California, and is not on the State Department of Industrial Relations (DIR) debarment list. C. Overaa & Co. and its listed subcontractors are properly registered with the State DIR. In the past five years, C. Overaa & Co. has not filed a Government Code Claim, nor initiated any litigation against the District.

SUSTAINABILITY

Economic

This item is included in the FY17 budget for the Water Treatment and Transmission Improvements Project.

The new ozone systems will reduce overall operating and maintenance costs by \$600,000 annually and improve the reliability and safety of the ozone systems. As part of this project the District also applied for grant funding under PG&E's customized program for energy efficiency, which provides an incentive for customers to replace existing equipment with newer more energy efficient equipment.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Work under this contract is subject to the payment of current prevailing wages according to determinations for each craft as established by the Director of Industrial Relations of the State of California.

Local 444 was notified of this contract on September 25, 2016. Local 444 did not raise any specific issues related to this contract.

The new ozone systems will improve water quality by reducing T&O issues for our customers and will improve the reliability of the water treatment plants during times of drought.

Environmental

An Environmental Impact Report (EIR) was certified by the Board on December 19, 2006. Addendums to the EIR were posted with the Alameda County Clerk and the Contra Costa County Clerk on October 27, 2016. Notices of Exemption for the new emergency generators were posted with the Alameda County Clerk on November 3, 2016 and with the Contra Costa County Clerk on November 7, 2016.

Sobrante and Upper San Leandro WTPs Ozone Systems Improvement April 25, 2017 Page 3

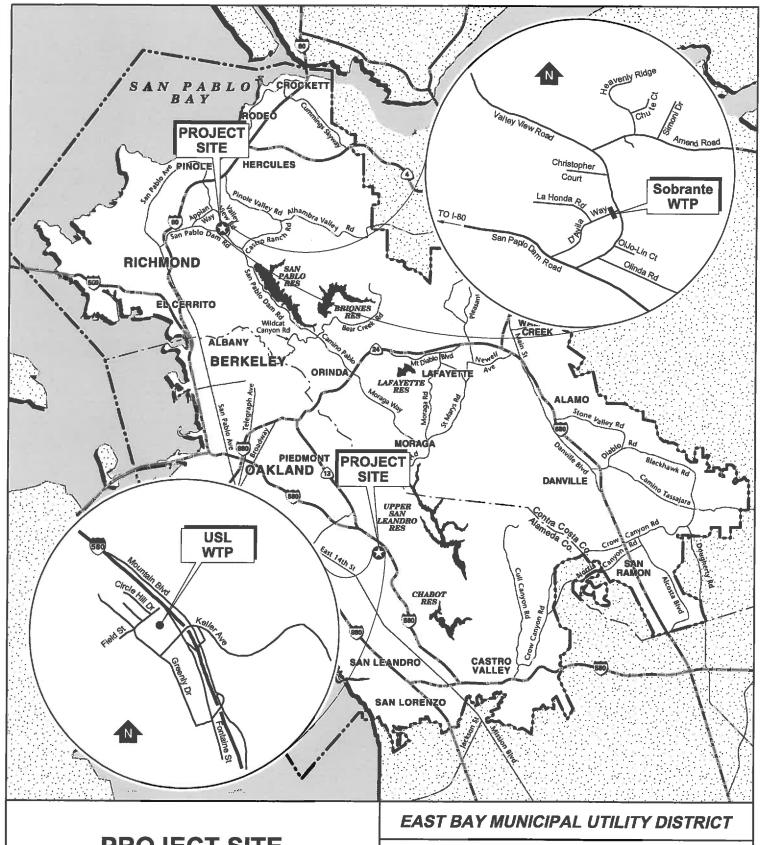
ALTERNATIVES

- Re-bid the project. This alternative is not recommended because it could significantly delay the project and increase overall costs. A delay could increase the risk of ozone system failure due to limited capacity, especially during summer months, resulting in significant customer complaints.
- **Do not proceed with the project.** This alternative is not recommended because the current ozone systems cannot meet the ozone production needed to destroy T&O causing compounds during summer months. Not upgrading the current ozone system will result in significant increases in long-term operating and maintenance costs.

Attachments

Location Map
Bid Summary
P-035 – Contract Equity Program Summary
P-061 – Affirmative Action Summary

I:\Sec\2016 Board Related Items\04-25-17 Board Agenda Items\E&C Sobrante and Upper San Leandro WTPs Ozone Systems Improvement.doc



PROJECT SITE LOCATION MAP

NOT TO SCALE

SOBRANTE AND UPPER SAN LEANDRO WATER TREATMENT PLANTS OZONE SYSTEMS IMPROVEMENTS

SPECIFICATION 2117

EAST BAY MUNICIPAL UTILITY DISTRICT SPECIFICATION 2117

SOBRANTE AND UPPER SAN LEANDRO WATER TREATMENT PLANTS OZONE SYSTEMS IMPROVEMENT

Bids Opened March 29, 2017

	BIDDER	TOTAL AMOUNT BID
1.	C. Overaa & Co. 200 Parr Blvd. Richmond, CA 94801 (510) 234-0926	\$34,169,000
2.	GSE Construction Company, Inc. 6950 Preston Ave. Livermore, CA 94551 (925) 447-0292	\$35,390,000

Engineer's Estimate:

\$32,318,000



CONTRACT EQUITY PROGRAM SUMMARY (P-035)

This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

DATE: TITLE SPECIFICATION NO.: 2117 April 17, 2017 Sobrante and Upper San Leandro Water Treatment Plants Ozone Systems Improvement PERCENTAGE OF CONTRACT DOLLARS CONTRACTOR: C. Overaa & Co. **Local Business Availability Group Contracting Objectives Participation** Richmond, CA 94801 FIRM'S OWNERSHIP White Men 25% 83.9% **BID/PROPOSER'S** PRICE: 7.2% **Ethnicity** Gender White Women 9% White Men **Ethnic Minorities** \$34,169,000 25% 1.4% CONTRACT EQUITY PARTICIPATION **GENDER** CONTRACTING PARTICIPATION **ESTIMATED ETHNICITY COMPANY NAME** White-White-Ethnic Publicly Gov't/Non AMOUNT M W Unclassified Foreign Held Corp. Men Women Minorities Profit PRIME: C. Overaa & Co. \$17,039,690 Х 49.9% White SUBS: 2.4% W.C. Maloney, Inc. \$820,000 White Х Sarott Construction Company \$700,000 White Х 2.0% Camblin Steel \$170,000 White х 0.5% Marquee Fire Х 0.2% \$77,940 White 0.3% Filtros LTD \$100,000 White Х \$170,000 Х 0.5% Schwabel Fabrication Co. White Flo Line Technology \$184,000 Х 0.5% White Donlee Pump \$120,000 Unclassified Х 0.4% 19.0% **HGH Electric** \$6,500,000 White Х \$34,169,000 83.9% 7.2% 1.4% 7.6% 0.0% **TOTAL** 0.0% 0.0% CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form) **Ethnic Minorities** White Men White Women **Total Employees** 169 17 186 No. of Employees: 45.4% 4.6% 50.0% Percent of Total Employees: 372 33.3% 28.2% 38.5% MSA Labor Market %: Contra Costa **MSA Labor Market Location:** COMMENTS Contract Equity Participation - 83.9% White Men participation, 7.2% White Women participation, 1.4% Ethnic Minority participation, and 7.6% Unclassified participation

Workforce Profile & Statement of Nondiscrimination Submitted	Good Faith Outreach Efforts Requirement Satisfied	Award Approval Recommended
NA	YES	Pya

Page: 1 of 2

(P-035 - 7/11)

CONTRACT EQUITY PROGRAM SUMMARY (P-035)

This summary contains information on the contractor's workforce and contract equity participation.

(Completed by District)

Specification No.: 2117
Sobrante and Upper San Leandro Water Treatment Plants Ozone Systems Improvement

CONTRACT EQUITY PARTICIPATION (cont. from page one)

			GEN	DER			CONTRA	ACTING PARTI	CIPATION		
COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	М	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.		
SUBS:											
Tranter, Inc.	\$115,000	White	Х		0.3%						
G2 Metal Fab Inc.	\$461,370	Hispanic	х				1.4%				
Blocka Construction, Inc.	\$2,100,000	White		х		6.1%					
Accurate Door Solutions, Inc.	\$76,500	White	x		0.2%						
F.D. Thomas, Inc.	\$570,000	White	х		1.7%						
Farwest Insulation Contracting	\$390,000	White	х		1.1%						
Astro Pak	\$130,000	Unclassified	х					0.4%			
Chart Inc.	\$1,990,000	Unclassified	x					5.8%			
Acme Construction Supply Co., Inc.	\$340,000	Unclassified	x					1.0%			
Jifco Inc.	\$1,114,500	White	×		3.3%						
Frank A. Olsen Company	\$1,000,000	White	х		2.9%						
Total	See page 1 for total										



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:	Sot	rante and Upper San Lo	eandro Water		Ethnic Min	ority Perce	ntages Fro	m U.S. Cei	nsus Data	
		Treatment Plants Ozone				В	н	A/PI	Al/AN	TOTAL
		Improvement	_	Natio	onal	10.5	10.7	3.7	0.7	27.3
			DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9
Spec	. No.:	2117	4/17/2017	Alameda/Co		10.7	15.6	15.4	0.5	46.2
R=Re	cmmd		4/11/2011						0,0	
P=Pri S=Sul		Composition of Ownership			Number of E	thnic Minor	rity Employ	/ees		
	any Nam hone Nur	e, Owner/Contact Person, Address, nber		В	н	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP		WM: LBE	Company Wide	32	124	15	3	174	46.8%	38.5%
C. Ove	raa & Co).	Manager/Prof	7	6	5	0	18	24.0%	
Gerald	D. Over	aa	Technical/Sales	0	3	0	0	3	30.0%	
200 Pa	rr Blvd.		Clerical/Skilled	19	82	9	3	113	48.7%	
Richmo	nd, CA	94801	Semi/Unskilled	6	33	1.1	0	40	72.7%	
			Bay Area	0	0	0	0	0	0.0%	39.9%
510-23	4-0926		Committee of the Commit	NA		Date of last	contract with	District:	9/16/2016	
			Co. Wide MSA:	Contra Costa		# Employee	s-Co. Wide;	372	Bay Area:	0
s		WM: LBE	Company Wide	5	19	0	0	24	47.1%	47.4%
	/laloney		Manager/Prof	0	0	0	0	0	0.0%	
	tis Malo		Technical/Sales	0	0	0	0	0	0.0%	
	ewton R	•	Clerical/Skilled	1	2	0	0	3	30,0%	
	n, CA 9		Semi/Unskilled	4	17	0	0	21	65.6%	
Oloonio	,, 0, 10	5200		0	0	0	0	0	0.0%	39.9%
000 04			Вау Агеа	Stockton-Loc		# Employee				Laure 1000 1
209-942	2-1129		Co. Wide MSA:					51	Bay Area:	0
S		WM: LBE	Company Wide	0	0	0	0	0	0.0%	48.4%
Sarott (Construc	tion Company	Manager/Prof	0	0	0	0	0	0.0%	
	. Griffith		Technical/Sales	0	. 0	0	00	0	0.0%	
		alley Rd.	Clerical/Skilled	0	0	1	11	2	12.5%	
Mounta	in Ranc	h, CA 95246	Semi/Unskilled	0	0	0	0	0	NA NA	
			Bay Area	0	0	1	0	1	14.3%	39.9%
925-38	1-9714		Co. Wide MSA:	California		# Employee	s-Co. Wide:	17	Bay Area:	7
S		WM	Company Wide	0	61	0	0	61	32.8%	48.4%
Camblii	n Steel		Manager/Prof	0	0	0	0	0	0.0%	
Mark C	amblin		Technical/Sales	0	0	0	0	0	0.0%	
4175 C	incinnati	Ave.	Clerical/Skilled	0	61	0	0	0	0.0%	
Rocklin	, CA 95	765	Semi/Unskilled	0	0	0	0	0	0.0%	
			Bay Area	0	0	0	0	0	0.0%	39.9%
916-644	4-1300		Co. Wide MSA:	California		# Employee	s-Co. Wide:	186	Bay Area:	0
S		WW: SBE	Company Wide	1	10	0	0	11	25.6%	39.9%
	o Eiro D	rotection	Manager/Prof	0	0	0	0	0	0.0%	00.07
Donna /		TO(ECLION	Technical/Sales	1 1	0	0	0	0	0.0%	
		um Lane	Clerical/Skilled	0	10	1 0	0	0	0.0%	
		A 95834	Semi/Unskilled	0	0	0	0	0	0.0%	
	, 0		Bay Area	1	4	0	0	5	38.5%	39.9%
040 04	1 7007			1	L		<u> </u>	:		antiminament with 2 / 10
916-64	1-1991	NA PARA	Co. Wide MSA:	9 Bay Area Co	ŧ	1	s-Co. Wide:	43	Bay Area:	13
S		ww	Company Wide	0	3	0	0	3	11.5%	34.1%
Filtros I			Manager/Prof	0	0	0	0	0	0.0%	
Linda V			Technical/Sales	0	0	0	0	0	0.0%	
		mercial St.	Clerical/Skilled	0	0		0	0	0.0%	
∟ast Ro	ochester	, NY 14445	Semi/Unskilled	0	3	0	0	3	17.6%	
			Bay Area	0	0	0	0	0	0.0%	39.9%
	6-8770 >	222	Co. Wide MSA:	New York		# Employee	s-Co. Wide:	26	Bay Area:	0



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title: 5	Sobrante and Upper San Le	eandro Water	Ethnic Minority Percentages From U.S. Census Data							
	Treatment Plants Ozone			-	В	Н	A/PI	AI/AN	TOTAL	
	Improvement				10.5	10.7	3.7	0.7	27.3	
		DATE:	9 Bay Area	Countles	5.5	16.2	14.2	0.4	39.9	
Spec. No	o.: 2117	4/17/2017	Alameda/C	C Counties	10.7	15.6	15.4	0.5	46.2	
R=Recmm P≕Prime S≍Sub	Composition of Ownership			Number of E			ees			
	Name, Owner/Contact Person, Address, e Number		В	н	A/PI	AI/AN	TOTAL	PERCENT	MSA %	
s	WM	Company Wide	1	0	0	0	1	6.7%	34.19	
Schwabel F	abricating Co., Inc.	Manager/Prof	0	0	0	0	0	0.0%		
Keith Waldr	ron	Technical/Sales	1	0	0	0	1	9.1%		
349 Sawyer	r Ave.	Clerical/Skilled	0	0	0	0	0	0.0%		
Tonawanda	a, NY 14150	Semi/Unskilled	0	0	0	0	0	0.0%		
		Bay Area	0	0	0	0	0	0.0%	39.99	
716-876-20	086 x552	Co. Wide MSA:	New York		# Employee	s-Co. Wide:	15	Bay Area:	0	
s	ww	Company Wide	0	0	2	0	2	28.6%	48.49	
	echnology, Inc.	Manager/Prof	0	0	0	0	0	0.0%	А	
John Novos		Technical/Sales	0	0	1	0	1	33.3%		
11822 Kem		Clerical/Skilled	0	0	1	0	1	100.0%		
Aubum, CA	•	Semi/Unskilled	0	0	1 0	0	0	0.0%		
, , ,		Bay Area	0	0	0	0	0	0.0%	39.99	
530-887-22	240	Co. Wide MSA:	California		# Employee	() van	7	Bay Area:	0	
0	EMM: H	Company Wide	0	18	0	0	18	100.0%	28.69	
Donloo Bun		13	0	7	0	0	7	100.0%	20.07	
Donlee Pump Company Ann Jones O' Rear		Manager/Prof Technical/Sales	0	8	0	0	0	0.0%		
2825 Railro		Clerical/Skilled	0	3	0	0	0	0.0%		
Ceres, CA 9		Semi/Unskilled	0	0	0	0	0	0.0%		
50,00, 0, 1	3331	Bay Area	0	0	0	0	0	0.0%	39.99	
209-537-93	906	Co. Wide MSA:	Stanislaus		# Employee		18	Marine Commission (Commission Commission Com	0	
1	WM: L/SBE			-				Bay Area:		
s		Company Wide	2	8	0	0	10	32.3%	48.49	
H.G.H Elect	·	Manager/Prof	0	0	0	0	0	0.0%		
Douglas Hid		Technical/Sales	0	8	0	0	0	0.0%		
3032 Marke Oakland, C		Clerical/Skilled Semi/Unskilled	0	0	0	0	10 0	35.7% 0.0%		
Jakialiu, G	A 94000				_				00.00	
		Bay Area	2	8	1	2	13	41.9%	39.99	
510-923-18:		Co. Wide MSA:	California		# Employee		31	Bay Area:	31	
S	WM	Company Wide	11	41	11	0	63	34.4%	27.39	
Tranter, Inc		Manager/Prof	5	7	4	0	16	28.1%		
Claudia Ord		Technical/Sales	3	2	11	0	0	0.0%		
1900 Old Bu	•	Clerical/Skilled	0	13	1	0	0	0.0%		
vicnita Fall	ls, TX 76306	Semi/Unskilled	3	19	5	0	27	51.9%	00.00	
	Bay Area		0	0	0	0	0	0.0%	39.99	
340 010		Co. Wide MSA:	Total USA		# Employee	1	183	Bay Area:	0	
940-249-96		Company Wide	0	7	2	0	9	56.3%	53.99	
S	EMM: H - L/SBE	diameter and the same of the s			2	0	4	50.0%		
S G2 Metal Fa	ab, Inc.	Manager/Prof	0	2	+					
S G2 Metal Fa Orlando Gu	ab, Inc. utierrez	Technical/Sales	0	0	0	0	0	0.0%		
S G2 Metal Fa Orlando Gu 6954 Presto	ab, Inc. utierrez on Avenue	Technical/Sales Clerical/Skilled	0	0	0	0	0	0.0% 0.0%		
	ab, Inc. utierrez on Avenue	Technical/Sales	0	0	0	0	0	0.0%	39.99	



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:	Sob	rante and Upper San Lo	eandro Water		Ethnic Mir	nority Perce	ntages Fro	m U.S. Cer	nsus Data	
		Treatment Plants Ozone				В	Н	A/PI	Al/AN	TOTAL
		Improvement		Nati	onal	10.5	10.7	3.7	0.7	27.3
_			DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9
Spec	:. No.:	2117	4/17/2017	Alameda/C	C Countles	10.7	15.6	15.4	0.5	46.2
R=Re P=Pri S=Su		Composition of Ownership			Number of E	thnic Mino	rity Employ	ees		
	pany Nam Phone Nun	e, Owner/Contact Person, Address nber		В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %
s		WW: L/\$BE	Company Wide	0	14	5	0	19	23.5%	48.49
Blocka	Constru	ction, Inc.	Manager/Prof	0	0	0	0	0	0.0%	
Patricia	Jean Bl	locka	Technical/Sales	0	0	1	0	1	10.0%	
4455 E	nterprise	Street	Clerical/Skilled	4	14	4	0	22	34.9%	
Fremor	nt, CA 94	1538	Serni/Unskilled	0	0	0	0	0	0.0%	
			Вау Агэа	3	10	5	0	0	0.0%	39.99
510-65	7-3686		Co. Wide MSA:	California	L	# Employee	s-Co. Wide:	81	Bay Area:	54
S		WM	Company Wide	0	0	0	0	0	0.0%	43.69
	ta Door 9	Solutions, Inc.		0	0	0	0	0	0.0%	40.07
	te Door : 4. Parkei	·	Manager/Prof Technical/Sales	0	0	0	0	0	0.0%	
		own Lane	Clerical/Skilled	0	0	0	0	0	0.0%	
		ch, CA 92647	Semi/Unskilled	0	0	0	0	0	0.0%	
i idildilg	3.00.			1 0	0	0	0	0	0.0%	39.9%
74404			Bay Area							NO. 100 - 57 - 57 A
714-84	2-0299		Co. Wide MSA:	Orange		1	es-Co. Wide:	3	Bay Area:	0
S		WM	Company Wide	12	106	5	4	127	41.9%	43.6%
F.D. Th	nomas, Ir	nc.	Manager/Prof	1 1	6	1 1	0	88	16.7%	
	erra Wells		Technical/Sales	0	0	0	0	0	0.0%	
	teman D		Clerical/Skilled	11	100	4	4	119	47.4%	
Central	Point, C	OR 97502	Serni/Unskilled	0	0	0	0	0	0.0%	-
			Bay Area	7	64	3	1	0	0.0%	39.99
541-66	4-3010		Co. Wide MSA:	Total USA		# Employee	es-Co. Wide:	303	Bay Area:	140
S		WM: LBE	Company Wide	7	128	18	5	158	58.1%	27.39
Farwes	t Insulati	ion Contracting	Manager/Prof	1 0	0	0	0	0	0.0%	
Tom Pl	atner		Technical/Sales	0	1	1	0	2	14.3%	i i
672 En	terprise (Ct.	Clerical/Skilled	2	99	11	3	115	60.5%	É
Livermo	ore, CA 9	94550	Serni/Unskilled	5	28	6	2	41	64.1%	
			Bay Area	1	22	0	0	0	0.0%	39.99
925-44	9-2670		Co. Wide MSA:	Total USA	i	# Employee	s-Co. Wide:	272	Bay Area:	29
s		WM: L/SBE	Company Wide	19	63	7	3	92	39.0%	48.49
Astro P	ak Corp.		Manager/Prof	0	6	2	0	8	15.7%	
	Holmes	•	Technical/Sales	14	34	1 1	2	0	0.0%	
	oodyear	Rd.	Clerical/Skilled	2	3	3	0	8	40.0%	ė
	, CA 945		Serni/Unskilled	3	20	1	1	25	58.1%	
			Bay Area	0	0	0	0	0	0.0%	39.99
949-270	0-0862		Co. Wide MSA:	California			s-Co. Wide:	236	Bay Area:	0
S	- 000Z	WM	Company Wide	3	7	8	0	18	3.7%	9.39
		4111	5/8/			-	-			9.37
Chart Ir Cheryl I			Manager/Prof Technical/Sales	0	0 2	1	0	3	2.8% 5.9%	ř
-	Notek Street N	NW.	Clerical/Skilled	2	3	3	0	8	3.0%	
		N 56071	Semi/Unskilled	1	2	1 1	0	4	6.3%	
140M I.I	ague, IVI	11 0007 1		1	1	-	-			20.00
			Bay Area	0	0	0	0	0	0.0%	39.99
952-75	8-8451	_	Co. Wide MSA:	Minnesota		# Employee	es-Co. Wide:	491	Bay Area:	0



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Sobrante and Upper San Leandro Water		Ethnic Minority Percentages From U.S. Census Data							
	reatment Plants Ozone				В	Н	A/PI	Al/AN	TOTAL
	Improvement	•	Nati	onal	10.5	10.7	3.7	0.7	27.3
Conna Na		DATE:	9 Bay Area	Countles	5.5	16.2	14.2	0.4	39.9
Spec. No.:	2117	4/17/2017	Alameda/C	C Counties	10.7	15.6	15.4	0.5	46.2
R=Recmmd P=Prime S=Sub	Composition of Ownership			Number of E	Ethnic Minor	rity Employ	ees		
Company Name and Phone Num	e, Owner/Contact Person, Address, aber		В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %
S	WM	Company Wide	1						
Acme Construct	ion Supply Co., Inc.	Manager/Prof							
Bryan Churchill		Technical/Sales	INFORMATION NOT PROVIDED						
1001 Yosemite I	Dr.	Clerical/Skilled							
Milpitas, CA 950	035	Semi/Unskilled							
		Bay Area							
503-444-5204		Co. Wide MSA:	1						
s	WM: LBE	Company Wide	0	40	5	0	45	81.8%	53.9%
Jifco, Inc.	·	Manager/Prof	0	7	2	0	9	56.3%	
Jay Forni, Jr.		Technical/Sales	0	1	0	0	1	33.3%	
571 Exchange C	St.	Clerical/Skilled	0	32	3	0	35	97.2%	
Livermore, CA 9	4551	Semi/Unskilled	0	0	0	0	0	NA	
		Bay Area	1 0	0	0	0	Ô	0.0%	39.9%
925-449-4665		Co. Wide MSA:	Alameda		# Employee	s-Co, Wide:	55	Bay Area:	24
s	WM: L/SBE	Company Wide	0	3	1 0	0	3	21.4%	48.4%
Frank A. Olsen		Manager/Prof	1 0	0	0	0	0	0.0%	101110
Sharon Viramon		Technical/Sales	0	1	0	0	1	0.0%	
286 Rickenback		Clerical/Skilled	0	1	0	0	1	0.0%	
Livermore, CA 9		Semi/Unskilled	0	1	0	0	1	0.0%	
Eveniore, or co	1331	Bay Area	0	3	0	0	0	27.3%	39.9%
925-961-8888		Co. Wide MSA:	California			s-Co. Wide:	14	Bay Area:	11
323-301-0000		CO. VVIGE MISA.	Camorina		# Limpioyee	3-00. WILE.	14	Day Alea.	-!!

	3					5-1		, 1	
			20 20 F 10 20						40.404
P COE Construction	EMM: H LBE	Company Wide	5	59	3	1	68	57.6%	48.4%
	on Company Inc.	Manager/Prof	1	4	0	0	5	27.8%	
Orlando Gutierre		Technical/Sales	0	0	0	0	0	0.0%	
6950 Preston Av		Clerical/Skilled	4	42	3	1	50	63.3%	
Livermore, CA 9	400	Semi/Unskilled	0	13	0	0	13	61.9%	00.00
ADE 417		Bay Area	5	61	3	1	70	59.3%	39.9%
925-447-0292		Co. Wide MSA:	California		# Employee	s-Co. Wide:	118	Bay Area:	118
'							1 1		
		· · · · · · · · · · · · · · · · · · ·	"maximum 200" t "maximum 40" 2-		1		m		sources - step
	\ANA/~\A/hite \A/omen EM~Ethnic Mir		L			****			



AGENDA NO.
MEETING DATE

5.2.	
April 25, 2017	

TITLE

SOBRANTE AND UPPER SAN LEANDRO WATER TREATMENT PLANTS OZONE SYSTEM IMPROVEMENTS – CONSTRUCTION SUPPORT SERVICES

⊠ MOTION	□ RESOLUTION	 □ ORDINANCE	 	

RECOMMENDED ACTION

Authorize an agreement beginning on or after April 25, 2017 with Cooper Pugeda Management, Inc. in an amount not to exceed \$1,692,170 to provide construction support services for the Sobrante and Upper San Leandro Water Treatment Plants Ozone System Improvements Project. In awarding this contract, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

The purpose of the Sobrante and Upper San Leandro Water Treatment Plants Ozone System Improvements Project is to upgrade the existing air-fed ozone systems at these plants with reliable and efficient oxygen-fed ozone systems. This agreement is needed to ensure effective construction management and inspection for the project. Cooper Pugeda Management, Inc. will provide supplemental personnel to blend with District staff.

This work supports the District's Strategic Plan goal for the Long-Term Infrastructure Investment.

DISCUSSION

The District is replacing the Sobrante and Upper San Leandro Water Treatment Plants Ozone Systems under Specification 2117. The project creates a period of peak construction workload because of multiple simultaneous work sites, the potential for multiple shifts, and around the clock work during the outage periods. It will be difficult to anticipate the need for extra shifts until the outage work is underway. The project also requires special testing and inspection for structural steel welding and ozone systems. In addition, the construction schedule for this complicated project with significant operating constraints requires current knowledge of specialized scheduling software. The consultant will provide a construction scheduler, construction inspectors, special inspection services, and lab testing services as needed. The resource shortfall for peak inspection workload, night time inspection work, specialized scheduling

Funds Available: FY 16/17, CIP #20	003499, Page 53	Budget Code: WSC/570/7	7999/2010054/5231
DEPARTMENT SUBMITTING Engineering and Construction	DEPARTMENT MANA Xavie		APPROVED According to the second of the sec

Contact the Office of the District Secretary with questions about completing or submitting this form.

Sobrante and Upper San Leandro Water Treatment Plants Ozone System Improvements Project – Construction Support Services
April 25, 2017
Page 2

services, and special inspection services can be best addressed by consultant staff that can be mobilized when needed and released when the work is over.

CONSULTANT SELECTION

Fifteen firms from the Engineering Consultant Roster list were contacted and project specific requests for proposals were sent to ten construction management firms displaying interest. Four firms provided proposals. Cooper Pugeda Management, Inc. was selected based on their qualifications and ability to provide the necessary expertise to blend with District staff.

SUSTAINABILITY

Economic

Funding for this item is included in the FY 16-17 budget for the Water Treatment and Transmission Improvement Program (WTTIP) Water Treatment Plant Project.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Work under this contract is subject to the payment of current prevailing wages according to determinations for each craft as established by the Director of Industrial Relations of the State of California.

Locals 21 and 2019 were notified of this contract on January 19, 2017 and did not raise any specific issues related to this contract.

Environmental

This project is part of WTTIP and is covered by the WTTIP Environmental Impact Report (EIR) certified by the Board of Directors on December 19, 2006. An addendum to the EIR was filed with the Alameda County and Contra Costa County Clerks on October 27, 2016.

Notices of Exemption were filed with the Alameda County Clerk on November 3, 2016 and Contra Costa County Clerk on November 7, 2016.

ALTERNATIVES

<u>Perform the work with District staff</u>. This alternative is not recommended as District staff is not available to cover various peak workload periods for this project without adversely impacting other construction projects, and cannot perform the specialized and night time inspection needed for some of this work.

Sobrante and Upper San Leandro Water Treatment Plants Ozone System Improvements Project – Construction Support Services
April 25, 2017
Page 3

<u>Perform the work with a different consultant</u>. This alternative is not recommended. The Cooper Pugeda Management, Inc. team has the best qualifications and experience for this project.

<u>Do not authorize agreement</u>. This is not recommended because construction support services are needed to ensure the successful construction of the Sobrante and Upper San Leandro Water Treatment Plants Ozone System Improvements Project.

Attachments

P-035 – Contract Equity Program Summary P-061 – Affirmative Action Summary

I:SEC\2017 Board Related Items\042517 Board Agenda Items\E&C Sobrante and USL WTPs Ozone System Improvements Project - Construction Support Services



CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

Professional Service	Professional Services Agreement							DATE:			
Sobrante and Uppe Improvements - Co				nent	Plants C	ozone S	ystem		Mar	ch 21, 20)17
CONTRACTOR:						PERC	ENTAGE	OF CONTR	RACT DO	LLARS	
Cooper Pugeda Management, San Francisco, CA 94103	Inc.	Small Bu	sines	5	Ava	ailability G	iroup	Contracting (Objectives	Partici	pation
BID/PROPOSER'S	FIRM	'S OWNERSI	HIP			White Me	n	25%	6	45.9	9%
PRICE:	Ethn	icity	Gen	der	V	Vhite Won	nen	6%		0.0	%
\$1,692,170 *	A/	PI	Me	en	Eti	nnic Mino	rities	25%	6	54.	1%
	THE FUE	CONTRA	CT E	QUIT	Y PAR	TICIPAT	ION				1000
COMPANY MARIE	ESTIMATED	ETUNICITY	GEN	DER			CONTRA	CTING PARTI	CIPATION		
COMPANY NAME	AMOUNT	ETHNICITY	M	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME:											
Cooper Pugeda Management, Inc.	\$915,407	A/PI	Х				54.1%				
SUBS:											
Brown and Caldwell	\$496,422	WM	Х		29.3%						
Kleinfelder	\$280,341	WM	х		16.6%						:
					ŀ						
TOTAL		\$1,692,170		<u> </u>	45.9%	0.0%	54.1%	0.0%	0.0%	0.0%	0.0%
	CONTRAC	CTOR'S WO	RKF	ORC	E PRO	FILE (FI	om P-025	Form)	4 11 3	S SINT	
		White Me	en	١	Nhite Wo	men	Ethnic	Minorities	Tota	el Employ	ees
No. of Em	ployees:	16			5			21			
D		20 40/		-	11.99	<u></u>	51	0.0%	1		
Percent of Total Em	pioyees:	38.1%			11.87	/O	30	J.U 76		42	
MSA Labor M	arket %:	32.3%	1		27.89	%	39	9.9%			
MSA Labor Market L	ocation:					9 Bay	Area Co	unties			
Established Series	TE THE REAL PROPERTY.	Sec. 11. 15 6	C	OM	MENTS	1.70	78 LO	70 s. Dt	2018	1 3	
Contract Equity Participation	- 45.9% Wh	nite Me n par		-			ic Minorit	y Participati	on		
*Total Not to Exceed \$1,692,170											
Total Not to exceed \$1,032,170											
			1								
Workforce Profile & Stateme Submitt		crimination	<u>`</u>		Faith Or			A	Award Ap Recomm		-
NA					N	IA		5	Da		
									411		

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(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

	Sobrante and Upper San Leandro Water				Ethnic Minority Percentages From U.S. Census Data							
Title:	-	Treatment Plants Ozono				В	Н	A/PI	AI/AN	TOTAL		
	lm	provements - Construct Services	ion Support	Natio	onal	10.5	10.7	3.7	0.7	27.3		
			DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9		
Profe	ssiona	I Services Agreement	3/21/2017	Alameda/C0	Countles	10.7	15.6	15.4	0.5	46.2		
R≔Re P≔Pri S=Su		Composition of Ownership		Number of Ethnic Minority Employees								
Comp		ne, Owner/Contact Person, Address, Tiber		В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %		
RP		EMM: A/PI SBE	Company Wide	0	6	15	0	21	50.0%	39.9%		
Cooper	Pugeda	a Management, Inc.	Manager/Prof	0	4	9	0	13	41.9%			
Ismael	Pugeda	•	Technical/Sales	0	0	6	0	0	0.0%			
65 McC	oppin S	itreet	Clerical/Skilled	0	2	0	0	2	0.0%			
San Fr	ancisco,	CA 94103	Semi/Unskilled	0	0	0	0	0	0.0%			
			Bay Area	0	0	0	0	0	0.0%	39.9%		
415-54	15-543-6515		AA Plan on File:	NA		Date of last	contract with	District:	6/2/2016			
,,,,,,,			Co. Wide MSA:	9 Bay Area C	ounties	# Employee	s-Co. Wide:	42	Bay Area:	0		
s		WM	Company Wide	52	81	132	4	269	17.9%	27.3%		
	and Cal	dwell	Manager/Prof	34	66	101	2	203	16.1%			
	Chapma		Technical/Sales	6	6	14	2	28	25.7%			
		rive, Suite 300	Clerical/Skilled	12	9	17	0	38	27.0%			
Walnut	Valnut Creek, CA 94596		Semi/Unskilled	0	0	0	0	0	0.0%			
			Вау Агеа	3	14	19	1	37	27.6%	39.9%		
303-23	03-239-5461		Co. Wide MSA:	Total USA	Lumanamannamanaman iii ee	# Employee	s-Co. Wide:	1,507	Bay Area:	134		
s	1	WM: LBE	Company Wide	49	129	99	8	285	17.8%	48.4%		
Kleinfe	Ider	***************************************	Manager/Prof	20	62	71	2	155	14.4%			
	idei Hartman		Technical/Sales	13	46	12	5	76	20.2%			
	arringto		Clerical/Skilled	16	21	16	1	54	36.5%			
	rd, CA 9		Semi/Unskilled	0	0	0	0	0	0.0%			
,	,		Bay Area	49	129	99	8	285	17.8%	39.9%		
619-83	1_4600		Co. Wide MSA:	California		# Employee	s-Co. Wide:	1.599	Bay Area:	166		
P	1-4000	ww	Company Wide	1	0	2	0	3	50.0%	48.39		
-				0	0	2	0	2	40,0%			
	ier Grou	ip LLC	Manager/Prof									
Holli Ti	,		Technical/Sales	0	0	0	0	1	0.0%			
		treet, Suite 3F	Clerical/Skilled	0	0	0	0	0	0.0%			
San Fr	ancisco,	, CA 94100	Semi/Unskilled		-		0	3	50.0%	39.9%		
			Bay Area	1	0	2		44 4		-		
415-40	7-4843		Co. Wide MSA:	San Francisc		1	es-Co. Wide:		Bay Area:	6		
Р		WM: LBE	Company Wide	62	329	160	12	563	15.4%	27.39		
		sultants, Inc.	Manager/Prof	7	97	110	5	219	11.6%			
	inie Pric		Technical/Sales	49	203	42	6	0	0.0%			
l .		ial Circle, Suite E	Clerical/Skilled	6	29	8	1	44	15.9%	1		
Conco	rd, CA 9	4520	Semi/Unskilled	0	0	1 0	0	0	0.0%	00.00		
			Bay Area	2	9	3	1 1	15	16.7%	39.99		
925-60	9-7224		Co. Wide MSA:	Total USA		T	es-Co. Wide:		Bay Area:			
Р		EMW: A/PI L/SBE	Company Wide	11	5	6	0	12	35.3%	48.49		
Conso	lidated (CM, Inc.	Manager/Prof	1	11	4	0	6	26.1%			
COLISO			Technical/Sales	0	3	0	0	3	60.0%			
Lang S	coble											
Lang S		enue, Suite 1520	Clerical/Skilled	0	1	2	0	3	50.0%			
Lang S 180 Gi			Clerical/Skilled Semi/Unskilled	0	0	0	0	0	0.0%			
Lang S 180 Gi	and Ave		***************************************		ļ	6	·	0 12		39.9%		



AGENDA NO.
MEETING DATE

5.3.	
April 25, 2017	

TITLE

SOBRANTE AND UPPER SAN LEANDRO WATER TREATMENT PLANTS CONTROL SYSTEM PRE-PURCHASE

☑ MOTION	☐ RESOLUTION	 □ ORDINANCE	

RECOMMENDED ACTION

Award a sole source contract to Honeywell International, Inc, after the addition of taxes, not to exceed \$800,000, for supplying two distributed control system (DCS) Experion software packages and associated hardware for the Sobrante and Upper San Leandro (USL) Water Treatment Plants (WTPs).

SUMMARY

The two Experion DCSs and associated hardware are needed to improve the reliability of the Sobrante and USL WTPs control systems. Having one uniform DCS software will enhance the overall efficiency at all District WTPs.

DISCUSSION

Under the Treatment Plant Upgrades Project, upgrades to the control systems at Sobrante and USL WTPs were recommended to improve the operation, reliability, and safety of the plants. The District installed Honeywell Experion DCSs at Walnut Creek WTP in 2001 and at Orinda WTP in 2016, and upgraded a portion of the control system at Sobrante WTP in 2006 as part of the Cable-Vac sludge collection system conversion project. The existing mixed control system at the Sobrante WTP contains software and hardware components from the 1980s that are nearing the end of their useful life. There is currently no DCS at USL WTP. Replacement parts and technical support for the aging hardware and technical support at both Sobrante and USL WTPs are increasingly difficult to access, resulting in less reliability and more costly and time-consuming repairs.

Honeywell is the sole source provider for the Experion DCS system. Honeywell Process Solutions has provided excellent technical support to the District in the past at Orinda and Walnut Creek WTPs. Standardizing and modernizing the control system at all plants will improve the maintenance and reliability of Sobrante and USL WTPs. The software and hardware purchased under this contract is required as part of the first phase of DCS improvements and in support of the Sobrante and USL Ozone

Funds Available: FY16-17; CIP #00	0437; Page 49	Budget Code: WSC\557\79	999\ 2010055:41
DEPARTMENT SUBMITTING Engineering and Construction	DEPARTMENT MANA Xavies		APPROVED Muse for R. Cur General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Sobrante and Upper San Leandro Water Treatment Plants Control Systems Pre-Purchase April 25, 2017

Page 2

Systems Improvement Project. District forces will provide oversight of the installation and also provide the programming and commissioning of the first phase of DCS upgrades at both plants.

This project supports the District's Strategic Plan goal for the Long-Term Infrastructure Investment.

VENDOR SELECTION

Honeywell International, Inc. is the sole source supplier of the Experion DCS software and hardware.

SUSTAINABILITY

Economic

This item is included in the FY17 budget for the Water Treatment Upgrade Program.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

The new DCSs will improve the operational reliability of Sobrante and USL WTPs and reduce the likelihood of plant outages in the future.

ALTERNATIVES

<u>Do not purchase the DCS software and hardware.</u> This alternative is not recommended because the current mixed control system at Sobrante WTP is unreliable and difficult to maintain. The control system at USL WTP is antiquated and a new Experion system will be required for the upcoming USL WTP Reliability and Improvements Project.

<u>Solicit for competitive bids</u>. This is not recommended because the District must standardize its control system for reliability at its treatment plants. Maintaining multiple control systems could result in increased design and maintenance costs from re-programming, retraining staff, and stocking parts to maintain multiple systems.

Attachments

P-035 – Contract Equity Program Summary P-061 – Affirmative Action Summary

I:\Sec\2017 Board Related Items\042517 Board Agenda Items\E&C\Sobrante and Upper San Leandro Water Treatment Plants Control System Pre-Purchase.doc



CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

TITLE General Services Ac	General Services Agreement							DATE:			
Sobrante and Uppe Pre-Purchase		dro Water T	reatn	nent	Plants C	Control S	System		April 18, 2017		
CONTRACTOR:						PERC	ENTAGE	OF CONTE	RACT DO	LLARS	91 - L
Honeywell International, Inc. (Honeywell Process Solutions) Phoenix, AZ)	Sole So	ource		Availability Group		Contracting Objectives		Participation		
BID/PROPOSER'S	FIRM	'S OWNERS	HIP			White Me	en	25%	6	0.0	%
PRICE:	Ethn	icity	Gen	der	ν	Vhite Won	nen	6%		0.0	%
\$800,000 /yr*	PH	IC			Etl	nnic Mino	rities	25%	6	0.0	%
		CONTRA	CTE	QUIT	TY PAR	TICIPAT	ION	1 7 2 2	11111	A COUNTY	W 1887
			GEN	DER	ĺ		CONTRA	CTING PARTI	CIPATION		
COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	м	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: Honeywell International, Inc. (Honeywell Process Solutions) SUBS: None	\$800,000	PHC							100.0%		
TOTAL		\$800,000			0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
	CONTRAC	TOR'S WO	RKF	ORO	E PRO	FILE (Fr	om P-025	Form)	STEET S	MERK!	
		White Me	en	V	Vhite Wo	men	Ethnic	Minorities	Tota	l Employe	es
No. of Em	ployees:	27,484	ļ		8,004	,	9	348			
Percent of Total Em		61.3%			17.9%	6	20).8%		44,836	
MSA Labor M	arket %:	39.0%			33.7%	6	27	7.3%			
MSA Labor Market L	ocation:						Total USA	4			
			C) WIN	MENTS	47000			at like the	II STATE	Anii ja ja
Contract Equity Participation -	Zero Contra	act Equity p	artici	oatio	n since t	firm is a	publicly h	neld corpora	ition.		
*Total not to exceed: \$800,00	00										
Workforce Profile & Statemer Submitte		rimination	G		Faith Ou quireme				Award App Recomme		
NA					N	A		11 >	10		

(P-035 - 7/11) Page: 1 of 1



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title: Se	obrante and Upper San Lo	eandro Water	Ethnic Minority Percentages From U.S. Census Data										
	Treatment Plants Contr				В	Н	A/PI	AI/AN	TOTAL				
	Pre-Purchase		Natio	onal	10.5	10.7	3.7	0.7	27.3				
		DATE:	9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9				
General S	ervices Agreement	4/18/2017	Alameda/Co		10.7	15.6	15.4	0.5	46.2				
R=Recmmd P=Prime S=Sub	Composition of Ownership		1	Number of E			l		40.2				
	ame, Owner/Contact Person, Address, Number		В	н	A/PI	AI/AN	TOTAL	PERCENT	MSA %				
RP	Publicly Held Corporation	Company Wide	3,157	3,140	2,766	301	9,364	20.9%	27.39				
	ternational, Inc. Process Solutions)	Manager/Prof	1,315	1,474	2,104	117	5,010	18.3%					
Mary Eileen I		Technical/Sales	502	576	338	128	1,544	20.6%					
2500 West U	Inion Hills Drive	Clerical/Skilled	1,274	1,049	313	55	2,691	28.3%					
Phoenix, AZ	85027	Semi/Unskilled	66	41	11	1	119	31.6%					
		Bay Area	0	0	0	0	0	0.0%	39.99				
347-691-429	5	AA Plan on File:	NA	A REPORT OF THE PROPERTY AND ADDRESS.	Date of last	contract with	District:	3/24/2017					
		Co. Wide MSA:	Total USA			s-Co. Wide:	44,836	Bay Area:	0				
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AGENDA NO.
MEETING DATE

5.4. April **25**, 2017

TITLE

SOBRANTE AND UPPER SAN LEANDRO WATER TREATMENT PLANTS CONTROL SYSTEMS – ENGINEERING SERVICES

⋈ MOTION	☐ RESOLUTION	 □ ORDINANCE	

RECOMMENDED ACTION

Authorize an agreement beginning on or after April 26, 2017 with Honeywell International, Inc. (Honeywell Process Solutions) in an amount not to exceed \$650,000 for engineering services for Sobrante and Upper San Leandro (USL) Water Treatment Plants (WTPs) control systems improvement. In awarding this contract, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

The work includes engineering support services to prepare design drawings, technical specifications, and construction support services for the installation of Honeywell's Experion distributed control system (DCS) at the Sobrante and USL WTPs. Modernizing the control systems at Sobrante and USL WTPs will improve reliability and having a uniform DCS will enhance the overall efficiency at all treatment plants.

DISCUSSION

Under the Treatment Plant Upgrades Project, the District has identified the need to modernize and standardize its treatment plant control systems to improve the operation, reliability, and safety of the plants. The District installed a Honeywell Experion DCS at Walnut Creek WTP in 2001 and at Orinda WTP in 2016, and installed a limited system at Sobrante WTP in 2006.

Honeywell Process Solutions is uniquely qualified to provide engineering support services to the District because they are the sole source provider of the Experion software and hardware, and have the requisite knowledge and experience in designing, installing, and connecting the proprietary hardware and equipment.

Funds Available: FY16-17; CIP #00	0437; Page 49	Budget Code: WSC\557\	7999\2010055:41
DEPARTMENT SUBMITTING	DEPARTMENT MANA	GER or DIRECTOR	APPROVED
Engineering and Construction	Twis	Ries	Mucafer R. Cear
	Xavier	J. Irias	General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Sobrante and Upper San Leandro WTPs Control Systems - Engineering Services April 25, 2017 Page 2

District staff will use the design drawings, details, and specifications provided by Honeywell Process Solutions under this engineering services contract to prepare a set of District construction contract documents that will be advertised through the District's normal bidding process to complete the second and final phase of DCS upgrades at the Sobrante and USL WTPs. District forces will also provide oversight of Honeywell Process Solution's work and provide the programming and commissioning of the DCS at both plants.

This project supports the District's Strategic Plan goal for the Long-Term Infrastructure Investment.

CONSULTANT SELECTION

This is a sole source contract with Honeywell International, Inc. (Honeywell Process Solutions). They are uniquely qualified to provide engineering services to the District because they are the sole source supplier of the Experion DCS software and hardware, and have the knowledge and experience to provide the most cost-effective design to install these proprietary products.

SUSTAINABILITY

Economic

This item is included in the FY17 budget for the Water Treatment Upgrade Program.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Work under this contract is subject to the payment of current prevailing wages according to determinations for each craft as established by the Director of Industrial Relations of the State of California.

Locals 2019 and 21 were notified of the contract on March 9, 2017. District staff met with Local 2019 on April 12, 2017 to discuss the project and answer questions, and no additional questions or concerns were raised by either union.

Environmental

This is the design phase of the project. Any CEQA/Environmental Compliance requirements will be identified as part of this project.

The new control systems will improve the operational reliability of Sobrante and USL WTPs and reduce the likelihood of plant outages in the future.

Sobrante and Upper San Leandro WTPs Control Systems - Engineering Services April 25, 2017
Page 3

ALTERNATIVES

<u>Do not do the project.</u> This alternative is not recommended because the current mixed control system at Sobrante WTP is unreliable and difficult to maintain. The control system at USL WTP is antiquated and a new Experion system will be required for the upcoming USL WTP Reliability and Improvements Project.

<u>Solicit for competitive bids</u>. This is not recommended because Honeywell Process Solutions is uniquely qualified to provide the engineering services to the District; they are the sole source supplier of the Experion DCS software and hardware, and have the knowledge and experience to provide the most cost-effective design to install these proprietary products. By not sole sourcing this contract, the District will incur significant additional design costs.

Attachments

P-035 – Contract Equity Program Summary P-061 – Affirmative Action Summary

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CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

Professional Services Agreement							DATE:					
	e and Upper San Leandro Water Treatment Plants Control System - ring Services						April 18, 2017					
CONTRACTOR:					PERCENTAGE			OF CONTRACT DO		LLARS	LLARS	
Honeywell International, Inc. (Honeywell Process Solutions) Phoenix, AZ		Sole So	ource	urce Availability Group			Contracting Objectives		Participation			
BID/PROPOSER'S	FIRM'S OWNERSHIP					White Me	en	25%	6	0.0	%	
PRICE:	Ethn	Ethnicity			٧	Vhite Won	nen	6%		0.0	0.0%	
\$650,000 /yr*	PH	PHC			Etl	nnic Mino	rities	25%	6	0.0	%	
		CONTRA	CT E	QUIT	Y PAR	TICIPAT	ION	3				
COMPANYAIANE	ESTIMATED	ETUNIOTY/	GEN	DER			CONTRA	CTING PARTIC	CIPATION			
COMPANY NAME	AMOUNT	ETHNICITY	М	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign	
PRIME: Honeywell International, Inc. (Honeywell Process Solutions) SUBS: None	\$650,000	PHC							100.0%			
TOTAL		\$650,000			0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
Street of the second	CONTRAC	TOR'S WO	RKF	ORC	E PRO	FILE (F	om P-025	Form)	200	DESCRIPTION OF STREET	4162	
		White Me	n	ν	Vhite Wo	men	Ethnic	Minorities	Tota	I Employe	ees	
No. of Emp	oloyees:	27,484			8,004	1	9,	348				
Percent of Total Emp	oloyees:	61.3%			17.9%	6	20).8%		44,836		
MSA Labor M	arket %:	39.0%			33.7%	6	27	7.3%				
MSA Labor Market Lo	ocation:						Total USA	\				
Contract Equity Participation -	Zero Contra	act Equity p			n since	firm is a	publicly h	neld corpora	tion.	Paris I		
*Total Not to Exceed \$650,000.												
Workforce Profile & Statemer Submitte		rimination	G			itreach E nt Satisf			Award Apı Reçomme			
NA					N	Α	_	1)	9			

File: PS - 3778_P (P-035 - 7/11) Page: 1 of 1



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

	rante and Upper San Le			Ethnic Mir	ority Perce	ntages Fro	m U.S. Cer	nsus Data	
Т	reatment Plants Contro					Н	A/PI AI/AN		TOTAL
	Engineering Servi	ces	Nati	onal	10.5	10.7	3.7	0.7	27.3
		DATE:	9 Bay Area	a Countles	5.5	16.2	14.2	0.4	39.9
Professiona	l Services Agreement	4/18/2017	Alameda/C	C Counties	10.7	15.6	15.4	0.5	46.2
R=Recmmd P=Prime	Composition of Ownership			Number of E	thnic Mino	rity Employ	ees		
S=Sub			T		т				
Company Name and Phone Num	e, Owner/Contact Person, Address, aber		В	н	A/PI	AI/AN	TOTAL	PERCENT	MSA 9
	blicly Held Corporation	Company Wide	3,157	3,140	2,766	301	9,364	20.9%	27.3
Honeywell Interi (Honeywell Proc		Manager/Prof	1,315	1,474	2,104	117	5,010	18.3%	
Mary Eileen Killi		Technical/Sales	502	576	338	128	1,544	20.6%	
2500 West Unio	n Hills Drive	Clerical/Skilled	1,274	1,049	313	55	2,691	28.3%	
Phoenix, AZ 850	027	Semi/Unskilled	66	41	11	11	119	31.6%	
		Bay Area	0	0	0	0	0	0.0%	39.9
847-691-4295		AA Plan on File:	4			contract with	District:	3/24/2017	
		Co. Wide MSA:	Total USA		# Employee	s-Co. Wide:	44,836	Bay Area:	0
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AGENDA NO.
MEETING DATE

6a.; 6b.	
April 25, 2017	

	DA CHARLE DENTAL CEDIACEC	
TITLE _	BACKHOE RENTAL SERVICES	
⊠ MOTION	RESOLUTION —	□ ORDINANCE

RECOMMENDED ACTION

- A. Authorize agreements beginning on or after April 25, 2017 with Adam Moreno & Sons, Inc., MJH Excavating, Inc., Paladin Construction, and Sheehaul's Rock & Dirt in an amount not to exceed \$300,000, for fully maintained and operated (FM&O) backhoe rentals for one year.
- B. Authorize additional agreements for FM&O backhoe rental services with vendors that meet District standards and offer pricing at or below the range in the proposed agreements above. These additional agreements may be issued on an as-needed basis to increase flexibility and ensure vendor availability of FM&O backhoe rental services to the District. The Board of Directors will be notified of additional qualified vendors by means of the General Manager's monthly report.

In awarding these contracts, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

Backhoes are used to excavate street surfaces for the repair and replacement of the District's distribution pipeline systems. The District has 49 backhoes that are scheduled daily to meet construction needs. Emergencies, unplanned work, peaks in workload and responding to staff absences require additional backhoe services. FM&O backhoe rentals are hourly and attachments such as a hoe ram or sheep's foot are available for an additional fee. Vendors on this list will be assigned work opportunities on a rotational basis to ensure a fair and equitable distribution of the total workload. This item was discussed at the Finance/Administration Committee on November 22, 2016.

DISCUSSION

These backhoe services are needed to supplement District crews during peak workload periods, staff absences, and emergencies such as applicant work, infrastructure renewal, responding to main breaks, relocating infrastructure as part of street improvement projects, and ongoing polybutylene and corroded copper service replacement programs. All qualified vendors are being recommended for award.

Funds Available: FY17	Budget Code: WSC & WS	SO/5296/5311
DEPARTMENT SUBMITTING Maintenance and Construction	DEPARTMENT MANAGER or DIRECTOR Clifford C. Chan	APPROVED Melsenfer R. Cerrol General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Backhoe Rental Services April 25, 2017 Page 2

The District developed a list of qualified vendors and issued purchase orders to cover job requirements. Vendors were selected from the list and are rotated based on need, availability of the requested equipment, and the cost of the specific equipment required; this process is used to ensure the work is evenly distributed. The District will continue to utilize this rotational system under these new agreements. As new qualified vendors are identified, they will be put on a waiting list and added to the active list as demand increases, vendors drop off, and/or vendors are released for poor performance.

On May 24, 2016, the Board approved \$200,000 for a one year agreement for FM&O backhoe rental services. The District has spent approximately \$120,000 on this service in the past year and anticipates increased usage due to upcoming staff vacancies in the next year. Usage is expected to decrease over time as vacancies are filled and with the filling of an additional position in FY19. The demands for peak periods require an authorization to continue these services for an additional year. This work supports the Strategic Plan goal for Long-Term Infrastructure Investment.

SERVICE PROVIDER SELECTION

In 2016, requests for proposals were sent to 34 potential vendors and four were responsive. All qualified vendors are being recommended for the contracts. As the District identifies additional vendors that meet District standards, and to increase flexibility and ensure vendor availability, the District will consider awarding contracts to those currently unidentified contractors, pursuant to this recommendation.

SUSTAINABILITY

Economic

Funds are included in the FY17 budget and have been requested in the FY18/19 budget. The majority of the prospective vendors are local small businesses whose employment helps the local economy.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

The use of FM&O backhoe rental services keeps pipeline production and repair moving, thus reducing service outage and replacement impacts to customers.

Local 444 was notified of this agreement in writing on March 29, 2017. The District and Local 444 met on April 5, 2017. Local 444 did not raise any specific issues related to this contract.

Environmental

The use of FM&O backhoe rental services helps to maintain efficient main break repair and replacement projects, and reduces impacts to local environments around District jobsites.

Backhoe Rental Services April 25, 2017 Page 3

ALTERNATIVES

<u>Do not contract for backhoe services</u>. This alternative is not recommended because not renting these services would delay repairs and construction of projects pending availability of District backhoe operators and equipment. Without these resources, customers could experience delays in leak response, service installations, pipeline replacements, applicant work, and District capital projects. The District continues to work on filling funded positions, however this process takes time.

Conduct a competitive bid and award to the lowest responsive/responsible bidder. This alternative is not recommended as no individual company has the capacity to address all of the District's requirements. This alternative would also affect the District's ability to provide opportunities to local Small Business Enterprise companies as only the larger companies would be positioned to compete, which would drive prices higher due to the smaller number of companies that might be considered responsive.

Attachments

P-035 Contract Equity Program Summary P-061 Affirmative Action Summary

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(P-035 - 7/11)

CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

								DATE:			-
General Services Ag	greement							DATE:			
Backhoe Rental Se	ervices								Ap	ril 18, 20 [.]	17
CONTRACTOR:						PERCE	NTAGE	OF CONTR	ACT DOL	LARS	
Various Firms		Loca	al /		A	ilabilib. C		Contracting	Ohioativaa	Partici	ation
(See Below)		Small Bu	sines	S	Avai	ilability Gı	oup	Contracting	Dijectives	Failici	Jauon
BID/PROPOSER'S	FIRM	'S OWNERS	HIP			White Mer)	25%	6	66.0	6%
PRICE:	Ethr	nicity	Ger	der	w	hite Wom	en	6%		0.0	%
\$300,000		hite	Ma	عاد	-	nic Minori		25%		33.	
\$300,000									1 - 1 2 2	33.	
		CONTRA	GEN	-	ITY PARTICIPATION CONTRACT			CTING PARTIC	IDATION	1000	10 (a)
COMPANY NAME	ESTIMATED	ETHNICITY	GLIN					T T T T T T T T T T T T T T T T T T T			
OSMI 7441 IV and	AMOUNT		М	w	White-Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIMES:								_			
Adam Moreno & Sons, Inc.	TBD	Hispanic		х			33.3%				
Mallat Evenyating Inc.	твр	White	x		33.3%						
MJH Excavating, Inc.	160	AAtiife	^		30.576						
Paladine Construction	TBD	White	х		33.3%						
					ŀ						
	<u>. </u>	**			00.00/	0.00/	22.20/	0.00/	0.00/	0.00/	0.00/
TOTAL		\$0	-	-	66.6%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%
	CONTRA	CTOR'S W								THE RES	T II SE
		White Me	en		White Wor	nen	Ethnic	Minorities	Tota	l Employe	968
No. of Em	ployees:										
Percent of Total Em	nlovees:										
reicent of Total Lin	pioyees.				c	ee atta	ched Forn	n D_061			
MSA Labor M	arket %:					occ alla	ineu i om	11 17-001			
MSA Labor Market L	ocation:										
South Section 1	0 100	14 2 8	C	OM	MENTS					South	
	00 00/ 14/6		: - : 4			Ethorio.	N. dimonih e m	a dialo atian			
Contract Equity Participation -	- 60.0% VVIII	ite ivien part	icipai	ion a	ariu 55.5%	EUIIIIC	willionty p	articipation			
Workforce Profile & Statemer		rimination			d Faith Out				Award Ap		-
Submitt	ed			R	equiremen		ed	1/2	Recomme	ended	··
NA					N/	Α		17	0		_
								1//	U		



(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:				Ethnic Min	ority Perce	ntages Fro	m U.S. Cer	sus Data	
	Backhoe Rental Ser	vices			В	н	A/PI	Al/AN	TOTAL
			Natio	onal	10.5	10.7	3.7	0.7	27.3
-		DATE:	9 Bay Area	Countles	5.5	16.2	14.2	0.4	39.9
General S	Services Agreement	4/18/2017	Alameda/C		10.7	15.6	15.4	0.5	46.2
R=Recmmd	1	7/10/2011			<u> </u>			<u> </u>	
P=Prime	Composition of Ownership		ŀ	Number of E	thnic Minor	rity Employ	rees		
S=Sub									
and Phone	lame, Owner/Contact Person, Address, Number		В	н	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	EMW: H - L/SBE	Company Wide	0	4	0	0	4	80.0%	39.9%
	no & Sons, Inc.	Manager/Prof	0	3	0	0	3	100.0%	
Laura Moren	·	Technical/Sales	0	0	0	0	0	0.0%	
6460 Tri Ln		Clerical/Skilled	0	1	0	0	1	50.0%	
El Sobrante,	CA 94803	Semi/Unskilled	0	0	0	0	0	0.0%	
Li Gobianto,	, 6/10-1000		0	4	0	0	4	80.0%	39.99
		Bay Area	COLUMN TO SERVICE STATE OF THE	4					39.87
510-222-287	73	AA Plan on File:	NA .	4.		contract with		2/18/2016	_
		Co. Wide MSA:	9 Bay Area Co	ounties	# Employee	s-Co. Wide:	5	Bay Area:	5
RP	WM: L/SBE	Company Wide	0	0	0	0	0	0.0%	46.29
MJH Excava	ating	Manager/Prof	0	0	0	0	0	0.0%	
Mark Harris		Technical/Sales	0	. 0	0	0	0	0.0%	
100 Harris R	lanch Road	Clerical/Skilled	0	0	0	0	0	0.0%	
Brentwood, (CA 94513	Semi/Unskilled	0	0	0	0	0	0.0%	
,	3	Bay Area	0	0	0	0	0	0.0%	39.99
925-382-973	39	Co. Wide MSA:	Alameda/Con	COMMUNICATION CONT.	# Employee	-	1	Bay Area:	1
RP	WM - L/SBE	Company Wide	-	_		_	0	0.0%	46.29
				-			0		40.27
Paladin Cons		Manager/Prof	0	0	0	0		0.0%	
Dennis Chan		Technical/Sales Clerical/Skilled	0	0	0	0	0	0.0%	
2249 Stoneb	-						0	0.0%	
Livermore, C	A 9400U	Semi/Unskilled	0	0	0	0		0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.99
925-381-049	95	Co. Wide MSA:	Alameda/Con	tra Costa	# Employee	s-Co. Wide:	1	Bay Area:	1
					-				
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	-		777-310000C GEORGE - 2000004C - 24					armanin's a susuament susuament	articularity articles
			777-330000C 00000K-30000K-34					armanine c montan	
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AGENDA NO.
MEETING DATE

7a.; 7b.

April 25, 2017

TITLE _	HYDRO/AIR-VACUUM EXCAVATION RENTAL SERVICES
MOTION	□ RESOLUTION □ ORDINANCE

RECOMMENDED ACTION

- A. Authorize agreements beginning on or after April 25, 2017 with Diede Construction, Inc. dba Hydro X Services, Inc. and Presidio Systems, Inc. in an amount not to exceed \$365,000 for fully maintained and operated (FM&O) hydro/air-vacuum excavation rental services for one year.
- B. Authorize additional agreements for FM&O hydro/air-vacuum excavation rental services with companies that meet District standards and offer pricing at or below the range in the proposed agreements above. These additional agreements may be issued on an as-needed basis to increase flexibility and ensure vendor availability of hydro/air-vacuum excavation rental services to the District. The Board of Directors will be notified of additional qualified vendors by means of the General Manager's monthly report.

In authorizing these agreements, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

The District uses hydro/air-vacuum excavation services on an as-needed basis to excavate around buried utilities when digging with a backhoe is unsafe and hand digging is inefficient. State regulations have been modified to allow the use of hydro/air-vacuum excavation equipment around buried utilities updating the process from hand digging. Under these agreements, the vendors will furnish FM&O hydro/air-vacuum excavation equipment in various sizes to meet the specific jobsite requirements. This item was discussed at the Finance/Administration Committee on November 22, 2016.

DISCUSSION

Under certain soil conditions and underground utility configurations, soils around the utilities must be loosened by hand digging or use of a water/air jet. A hydro/air-vacuum excavator can be used to loosen soils with the water/air jet feature and a vacuum to remove loosened materials. Hydro/air-vacuum excavation is typically safer and more efficient than hand digging around utilities. The District currently owns and operates nine hydro-excavators. These services will supplement District staff operating hydro-

Funds Available: FY17/18	Budget Code: WSC & W	SO/VAR-VAR-5296
DEPARTMENT SUBMITTING Maintenance and Construction	DEPARTMENT MANAGER or DIRECTOR VClifford C. Chan	APPROVED Mules R. Cond General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Hydro/Air-Vacuum Excavation Services April 25, 2017 Page 2

excavators during peak demand periods, when a variety of different equipment configurations are needed to accommodate project conditions, and when District owned equipment is being serviced or repaired.

Rentals are hourly and rates vary depending on the type of machine. Rentals will be rotated between vendors depending on availability. On May 24, 2016, the Board approved \$100,000 for a one year agreement for hydro-excavation rental services. Expenditures of this type were approximately \$105,000 in 2016. The District anticipates the usage to increase to perform more potholing to verify locations of conflicts. The District is evaluating new types of air-vacuum excavators for purchase, which will reduce the need for this FM&O service in the future. This work supports the Strategic Plan goal for Long-Term Infrastructure Investment.

SERVICE PROVIDER SELECTION

The District requested proposals from two vendors that are able to provide equipment rental services, and both listed vendors are those who responded. Both qualified vendors are being recommended for contracts. As the District identifies additional vendors that meet District standards, and to increase flexibility and ensure vendor availability, the District will consider awarding contracts to those currently unidentified contractors, pursuant to this recommendation.

SUSTAINABILITY

Economic

Funds are included in the FY17 budget and have been requested in the FY18/19 budget. The majority of the selected vendors are local small businesses whose employment helps the local economy.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

The use of FM&O hydro/air-vacuum excavation rental services keeps pipeline production and repair moving, thus reducing service outage and replacement impacts to customers.

Local 444 was notified of these agreements on March 29, 2017. The District and Local 444 met on April 5, 2017. Local 444 did not raise any specific issues related to this contract.

Environmental

The use of FM&O hydro/air-vacuum excavation rental services helps to maintain efficient main break repair and replacement projects, and reduces impacts to local environments around District jobsites.

ALTERNATIVES

<u>Do not contract out for hydro/air-vacuum excavation services.</u> This alternative is not recommended. The District currently owns five truck mounted hydro/air-vacuum excavators and four trailer mounted hydro-excavators, with an additional hydro/air-vacuum excavator on order. This equipment costs approximately \$400,000 per unit and rental of this equipment is difficult. The District needs the flexibility

Hydro/Air-Vacuum Excavation Services April 25, 2017 Page 3

of selecting various sizes of equipment to accommodate the variety of jobsite conditions and fluctuating workload. As the use of different sized machines is intermittent, it is not cost effective to purchase all configurations of hydro/air-vacuum excavators.

<u>Do not utilize hydro/air-vacuum excavation around utilities in place of hand digging or backhoe.</u> This alternative is not recommended as hand digging or utilizing a backhoe is not always the most efficient or safest excavation method.

Attachments 1

P-035 Contract Equity Program Summary P-061 Affirmative Action Summary

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CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

General Services Agreement								DATE:			
Hydro/Air-Vacuum Excavation Rental Services - One-Year Contract								Ар	ril 18, 20	17	
CONTRACTOR:						PERC	ENTAGE	OF CONTE	RACT DO	LLARS	100
Various Firms Local Busi See Below			inesse	es	Availability Group			Contracting Objectives		Participation	
BID/PROPOSER'S	FIRM	'S OWNERS	OWNERSHIP			White Men			25%		0%
PRICE:	Ethn	nicity	Gen	Gender White Women			6%		50.0%		
\$365,000 /yr*	See I	Below				hnic Mino		25%	6	0.0	%
		CONTRA	1		Y PAR	TICIPAT			The same	Aufun Sa	
COMPANY NAME	ESTIMATED	ETHNICITY	GEN	DER			CONTRA	ACTING PARTI	CIPATION	I	ı
COMPANY NAME	AMOUNT	EIRNICHT	м	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIMES: Diede Construction, Inc. dba Hydro X Services, Inc.	\$182,500	White	x		50.0%						
Presidio Systems, Inc.	\$182,500	White		x		50.0%					
None											
TOTAL		\$365,000	-		50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	CONTRAC		R'S WORKFORCE PROFILE (From P-02								
No. of East		White Me	en		Vhite Women Ethnic Mi			winorities	1012	II Employ	ees
No. of Employees: Percent of Total Employees: MSA Labor Market %:						See atta	ached P-0	061 Form			
MSA Labor Market L	ocation:										
		1	C	MMC	IENTS	22.3	100				a land
Contract Equity Participation - 50.0% White Men participation and 50.0% White Women participation. *Total not to exceed: \$365,000											
Workforce Profile & Statemer Submitte		rimination	G		Faith Ou			20	Award Ap		
NA NA	· ·					Α		8	M R		
<u> </u>											



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:			1	Ethnic Min	ority Perce	ntages Fro	m U.S. Cer	nsus Data	
Hydro/Air-Vacuum Excavation Rental Services - One-Year Contract			-	В	Н	A/PI	Al/AN	TOTAL	
	Services - One-Year C	ontract	Nati	onal	10.5	10.7	3.7	0.7	27.3
DATE:			9 Bay Area	Counties	5.5	16.2	14.2	0.4	39.9
General Services Agreement R*Recmmd P=Prime Composition of Ownership S=Sub Company Name, Owner/Contact Person, Address, and Phone Number		4/18/2017	Alameda/C		10.7	15.6	15.4	0.5	46.2
				Number of E	thnic Mino	rity Employ	rees		
			В	Н	A/PI	Al/AN	TOTAL	PERCENT	MSA %
RP	WM: LBE	Company Wide	1	23	3	0	27	22.1%	47.49
Diede Construct Hydro X Service		Manager/Prof	1	3	0	0	4	10.5%	
Steven Diede	5, IIIC.	Technical/Sales	0	0	1	0	1	25.0%	
12393 N. Hwy 9	9	Clerical/Skilled	0	2	2	0	4	6.5%	
Lodi, CA 95240	-	Semi/Unskilled	0	18	0	0	18	100.0%	
2001, 07100210		Bay Area	0	0	0	0	0	0.0%	39.9
			-					1	39.9
209-369-8255			NA Stackton Los			contract with		3/8/2017	
		Co. Wide MSA:	Stockton-Loc	Y	# Employee		122	Bay Area:	0
RP	WW: L/SBE	Company Wide	6	0	2	0	8	27.6%	46.2
Presidio System	i, Inc.	Manager/Prof	0	0	0	Ő	0	0.0%	
Joe Schratz		Technical/Sales	6	0	1	0	7	35.0%	
159 Wright Broth	hers Ave.	Clerical/Skilled	0	0	1	0	1	14.3%	
Livermore, CA 9	4551	Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9
(925) 456-8400		Co. Wide MSA:	Alameda/Con	tra Costa	# Employee	s-Co. Wide:	29	Bay Area:	0
	· · · · · · · · · · · · · · · · · · ·				T				
	-			The second secon					
	WW=White Women FM=Ethnic Mil	w w		1		4 200 1 4			H-C 1 8

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: B=Black, H=Hlspanic, A/PI=Asian/Pacific Islander, and Al/AN=American Indian/Alaskan Native)



AGENDA NO.
MEETING DATE

8.	
April 25, 2017	

TITLE	EAST BAYSHORE RECYCLED WATER PROJECT WATER QUALITY
	IMPROVEMENTS STUDY

RECOMMENDED ACTION

Authorize an agreement with Brown and Caldwell in an amount not to exceed \$340,000 to conduct a water quality improvements study for the East Bayshore Recycled Water Project (East Bayshore Project).

SUMMARY

The District is expanding the East Bayshore Project to meet its recycled water supply goals. Consistent with that strategy, this study will recommend near-term and long-term water quality improvements to allow increased recycled water deliveries, including for indoor uses such as building cooling systems.

DISCUSSION

The District implemented the East Bayshore Project in 2008 to deliver recycled water to customers in Oakland and Emeryville, and to expand over time to Berkeley, Albany, and Alameda. When expansions are complete, the project will deliver up to 2.7 million gallons per day (MGD) toward the District's goal of delivering a total of 20 MGD in the District's Water Supply Management Program (WSMP) 2040.

The East Bayshore Project is a multi-phased project that treats secondary wastewater effluent at the District's Main Wastewater Treatment Plant to produce tertiary treated recycled water. East Bayshore Project recycled water is proposed in a number of outdoor and indoor applications, such as landscape irrigation, and industrial and commercial cooling towers. To date, most deliveries have been for landscape irrigation due to water quality, which has limited the use of recycled water in indoor applications. Pilot applications in cooling towers have been unsuccessful due to salt concentrations and bio-fouling. Aesthetic issues such as odor and color, and at times, black flocs appearing in the recycled water have been problematic for toilet/urinal flushing.

Under the agreement, Brown and Caldwell would conduct a water quality evaluation of East Bayshore Project recycled water including reviewing the Main Wastewater Treatment Plant operations to

Funds Available: FY17		Budget Code: WSC/455/7	7999/2009682/5231
DEPARTMENT SUBMITTING Water & Natural Resources	DEPARTMENT MANA Control G. Sykes	APPROVED Meuorfer A. Corf General Manager	

Contact the Office of the District Secretary with questions about completing or submitting this form.

EBRWP Water Quality Improvements Study Contract April 25, 2017 Page 2

characterize influent waste streams and effluent water quality, and formulating recycled water quality criteria for various applications. Brown and Caldwell would use the results of the evaluation and the recycled water quality criteria to develop potential near-term and long-term strategies to improve recycled water quality for both indoor and outdoor uses.

CONSULTANT SELECTION

Requests for proposals (RFPs) were sent to 14 consulting firms from the Wastewater Engineering category of the District's FY16-17 Engineering Consulting Roster. Two (2) proposals were received in response to the RFP. Based on rankings of the written proposals, Brown and Caldwell was selected as the most qualified firm.

SUSTAINABILITY

Economic

Funding for this item is included in the FY17 budget for the East Bayshore Recycled Water Project. Strategies developed under the study may result in more cost effective expansion of the East Bayshore Project.

Social

The completed P-035 and P-061 forms for the Contract Equity Program are attached.

Locals 21 and 2019 were notified on December 21, 2016. Local 21 did not have any questions. Staff met with Local 2019 on January 11, 2017 to answer their questions. No additional concerns were raised.

Environmental

The results of the study will be used to increase recycled water deliveries supporting the District's water recycling goal, and reducing effluent discharges into the San Francisco Bay.

ALTERNATIVE

<u>Do not award this contract</u>. This alternative is not recommended, as the work is needed to improve the reliability of the recycled water deliveries. Expanded use of recycled water within the District service area is consistent with District's goal of delivering 20 MGD of recycled water by 2020.

RGS:MTT:LHH:acr

Attachments: P-035 - Contract Equity Program Summary

P-061 - Affirmative Action Summary



CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

Professional Services Agreement from Engineering Consultant Roster											
Consulting Agreement with Brown and Caldwell for the East Bayshore Recycled Water Project Quality Improvements Study									Mar	ch 29, 20	17
CONTRACTOR:	-,	_				PERC	ENTAGE	OF CONTR	RACT DO	LLARS	100
Brown and Caldwell Walnut Creek, CA 94596					Availability Group			Contracting Objectives		Participation	
BID/PROPOSER'S	FIRM	'S OWNERS	HIP			White Me	n	25%	6	72.0%	
PRICE:	Ethn	icity	Ger	nder	v	Vhite Won	nen	6%		5.5%	
\$332,612 *	Wh	nite	Me	en	Eti	nnic Mino	rities	25%	V ₀	22.5	5%
		CONTRA	CT E	QUIT	Y PAR	TICIPAT	ION	17.2.17	1927		No.
	ESTIMATED		GEN	DER			CONTRA	ACTING PARTI	CIPATION		
COMPANY NAME	AMOUNT	ETHNICITY	М	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME:			,		74.00/						
Brown and Caldwell	\$236,612	White	X		71.0%						
SUBS:	475 000	A /DI		x			22.5%				
LEE Incorporated	\$75,000	A/PI		^			22.576				
SRT Consultants	\$18,000	White		Х		5.5%					
Puckorius & Associates	\$3,000	White	х		1.0%						
	2										
			<u></u>	L. <u>.</u>							
TOTAL		\$332,612			72.0%	5.5%	22.5%	0.0%	0.0%	0.0%	0.0%
	CONTRAC	CTOR'S WO	RKF				17				
		White Mo	en ———	<u>'</u>	White Wo	men	Ethnic	Minorities	Tota	al Employe	ees
No. of Em	ployees:	791			430		:	286			
Percent of Total Em	ployees:	52.5%)		28.59	%	1	9.0%		1,507	
MSA Labor N	larket %:	39.0%)		33.79	%	2	7.3%			
MSA Labor Market L	ocation:						Total US	A			
			C	OM	MENTS			100 Berlin	9174-14		
Contract Equity Participation 22.5% Ethnic Minority partic		ite Men part	icipa	tion,	5.5% W	hite Wo	men parti	icipation, an	ıd		
*Total Not to Exceed \$332.612											
. 300, 100, 10 Exceed \$602.012											
Workforce Profile & Stateme		crimination			Faith O			11/	Award Ap		
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File: PS - 3767_P

(P-035 - 7/11)

Page: 1 of 1



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:	and the second second sould be	. Drawn and		Ethnic Mine	ority Percei	ntages Fro	m U.S. Cer	isus Data	
Caldwell for the East Bayshore Recycled Water Project Quality Improvements Study					В	Н	A/PI	Al/AN	TOTAL
			National		10.5	10.7	3.7	0.7	27.3
			9 Bay Area	Countles	5.5	16.2	14.2	0.4	39.9
Professiona	al Services Agreement	3/29/2017	Alameda/C0	Counties	10.7	15.6	15.4	0.5	46.2
R=Recmmd P=Prime S=Sub	Composition of Ownership		1	Number of E	thnic Minor	ity Employ	ees		
	ne, Owner/Contact Person, Address, mber		В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %
RP	WM: LBE	Company Wide	52	81	132	4	269	17.9%	27.3%
Brown and Cal	ldwell	Manager/Prof	34	66	101	2	203	16.1%	
Robert Chapm	an	Technical/Sales	6	6	14	2	0	0.0%	
201 N. Civic D	rive, Suite 300	Clerical/Skilled	12	9	17	0	0	0.0%	
Walnut Creek		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
303-239-5461		AA Plan on File:	NA	(<u></u>	Date of last	contract with	District:	11/9/2016	
		Co. Wide MSA:	Total USA		# Employee	s-Co. Wide:	1,507	Bay Area:	134
s	EMW: A/PI SBE	Company Wide	1	0	5	0	6	54.5%	48.3%
LEE Incorporat		Mariager/Prof	1	0	5	0	6	54.5%	15.57
Ellen Lee	leu	Technical/Sales	0	0	0	0	0	0.0%	
Elleri Lee 28 Geary Stree	ot Quite 880	Clerical/Skilled	0	0	0	0	0	0.0%	
San Francisco		Serni/Unskilled	0	0	0	0	0	0.0%	
Oall Halloisco	, 0, 0, 100	Bay Area	0	0	0	0	0	0.0%	39.99
							11		0
415-421-2758		Co. Wide MSA:	San Francsic	0	# Employee	s-co. vvide.	11	Bay Area:	U
SRT Consultar Reena Thomas				INFORM	ATION NOT I	PROVIDED			
SRT Consultar Reena Thoma: 90 New Montg San Francisco	nts s omery St., Suite 905			INFORM	ATION NOT I	PROVIDED			
SRT Consultar Reena Thoma: 90 New Montg San Francisco	nts s omery St., Suite 905 , CA 94105			INFORM	ATION NOT I	PROVIDED			
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		AGENDA NO. MEETING DATE	9. Apr il 25, 2017
TITLE	ASSIGNMENT OF AGREEMENT CONSTRUCTION FOR MWWT1 REPAIRS		
⊠ MOTI	ON □ RESOLUTION	□ ORDINANCE	

RECOMMENDED ACTION

Approve the assignment of the agreement for design services during construction for Main Wastewater Treatment Plant (MWWTP) Digester Nos. 6, 9, 10, and 11 Coating Repairs to West Yost Associates. This agreement was previously awarded to Whitley Burchett & Associates under Board Motion No. 037-16 on February 23, 2016.

SUMMARY

In February 2016, the District entered into an agreement with Whitley Burchett & Associates to provide design services during construction for the MWWTP Digester Nos. 6, 9, 10, and 11 Coating Repairs Project. In March 2017, West Yost Associates purchased Whitley Burchett & Associates. This change does not impact the agreement terms or staff allocation. Staff has determined that assignment of this agreement will not affect the performance of this contract.

DISCUSSION

Whitley Burchett & Associates completed the design of the MWWTP Digester Nos. 6, 9, 10, and 11 Coating Repairs Project in January 2016. Because Whitley Burchett & Associates is the Engineer-of-Record, the District hired Whitley Burchett & Associates to perform design services during construction under a \$400,000 agreement that also included specialized coating inspection services. The District has completed coating repair construction work on Digester Nos. 6 and 9. The District will work with Whitley Burchett & Associates to complete a revised design for repair of Digester Nos. 10 and 11 based on updated coating condition assessment information. Staff expects to submit a construction contract for Board consideration to repair the coating on Digester Nos. 10 and 11 this summer.

Funds Available: FY17	Budget Code: WWC/927/	7999/2020752/5561
DEPARTMENT SUBMITTING	DEPARTMENT MANAGER or DIRECTOR	APPROVED
Wastewater	Eileen M. White	Mularfer R. Comp. General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Assignment of Agreement for Design Services During Construction for MWWTP Digester Nos. 6, 9, 10, and 11 Coating Repairs
April 25, 2017
Page 2

SUSTAINABILITY

Economic

There is no anticipated fiscal impact as a result of this assignment. West Yost Associates will continue to provide design services during construction as required in the previously-approved agreement with Whitley Burchett & Associates.

Social

The completed P-035 and P-61 forms for the Contract Equity Program are attached.

ALTERNATIVES

<u>Select a different consultant to perform the work.</u> This alternative is not recommended because Whitley Burchett & Associates is serving as the Engineer-of-Record following completion of the coating repair design.

<u>Perform the work entirely with District forces</u>. This alternative is not recommended because Whitley Burchett & Associates is providing highly specialized technical expertise and is the Engineer-of-Record.

Attachments

P-035 – Contract Equity Program Summary P-061 – Affirmative Action Summary

I:\Sec\2017 Board Related Items\042517\WW\WW - Assign Agreement for Design Services-MWWTP Digesters.doc



CONTRACT EQUITY PROGRAM SUMMARY (P-035) This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

Professional Service	DATE:										
Assignment of Cor Construction for M		epairs		Ap	ril 11, 20	17					
CONTRACTOR:					less in	PERC	ENTAGE	OF CONT	RAÇT DO	LLARS	
West Yost Associates * Small I Davis, CA 95618				Small Business Availability Group			Contracting	Objectives	Participation		
BID/PROPOSER'S	FIRM	I'S OWNERSHIP				White Me	en	25%	Y6	100	.0%
PRICE:	Ethnicity			Gender White Wor			nen	6%	% 0.0)%
\$400,000 /yr**	W	White N			en Ethnic Minorities		rities	259	%	0.0%	
	Total Control	CONTRA	CT E	QUI	TY PAR	TICIPAT	FION		JP 5103		
	ESTIMATED		GEN	DER			CONTRA	ACTING PARTI	CIPATION		
COMPANY NAME	AMOUNT	ETHNICITY	М	w	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: West Yost Associates											
	\$400,000	White	X		100.0%						
SUBS:	<u>.</u>										
None											
	!										
*											
							i				
				,							
							:				
TOTAL		\$400,000			100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	CONTRAC	TOR'S WO	RKF	ORC	E PROI	ILE (Fr	om P-025	Form)	THE PARTY		
		White Me	n	٧	Vhite Wo	men	Ethnic I	dinorities	Total	Employe	800
No. of Emp	oloyees:	60			39		28				
Percent of Total Emp	oloyees:	47.2%			30.7%	6	22.0%		127		
MSA Labor Ma	arket %:	39.0%	39.0% 33.7% 27.			2.3%					
MSA Labor Market Lo	ocation:					•	Γotal USA				
			CC	NN	ENTS		2.5.20			U.SWI	WE.
Contract Equity Participation -	100.0% Wh	ite Men par	ticipa	tion							
Previous Firm - Whitley Burchett	& Associates										
*Total Not to Exceed \$400,000											
Workforce Profile & Statemen		imination	G		Faith Out				ward App		\dashv
NA					N/			6>	130		
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AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:	Assignment of Consultant Agreement for			Ethnic Mi	nority Perce	entages Fro	om U.S. Ce	nsus Data		
	Design Services During Construction for MWWTP Digester Nos. 6, 9, 10, and 11				В	Н	A/PI	Al/AN	TOTAL	
	MV	?,VWTP Digester Nos. 6 Coating Repair		Nat	tional	10.5	10.7	3.7	0.7	27.3
			DATE:	9 Bay Area Counties		5.5	16.2	14.2	0.4	39.9
Profe	ssiona	l Services Agreement	4/11/2017	Alameda/C	CC Counties	10.7	15,6	15.4	0.5	46.2
	cmmd			1						
P=Prime Composition of Ownership S=Sub				Number of E	thnic Mino	rity Employ	/ees			
Company Name, Owner/Contact Person, Address and Phone Number			В	н	A/PI	Al/AN	TOTAL	PERCENT	MSA %	
₹P		WM: SBE	Company Wide	3	9	9	1	22	17.3%	27.3
Vest Y	ost Asso	ciates	Manager/Prof	3	4	9	0	16	17.2%	
Charles	T. Dunc	an	Technical/Sales	0	0	0	0	0	0.0%	1
2020 Research Park Drive, Suite 100		Clerical/Skilled	0	5	0	1	0	0.0%	1	
Davis, I	CA 9561	8	Semi/Unskilled	0	0	0	0	0	0.0%	
			Bay Area	1	5	0	0	6	17.1%	39.9
30-75	3-5 9 05		AA Plan on File:	NA		Date of last	contract with	District:	3/15/2016	
			Co. Wide MSA:	Total USA		# Employee		127	Bay Area:	35
					1					
				- 1		-				Table 1
					 					
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WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: B=Black, H=Hispanic, A/PI=Asian/Pacific Islander, and Al/AN=American Indian/Alaskan Native)



	AGENDA NO.	10.
	 	E April 25, 2017
		•
TITLE INVESTMENT POLI	CY ANNUAL REVIEW	
□ MOTION — ⊠ RI	SOLUTION □ ORDINANO	CE

RECOMMENDED ACTION

Review and approve revisions to Investment Policy 4.07, which was last revised on April 26, 2016, and affirm existing delegation of authority for the management of investments on behalf of the District to the Director of Finance, who is also acting as the Treasurer of the District. The policy has been reviewed and amended as needed for clarity, to ensure continued compliance with the California Government Code and to respond to recent regulatory changes.

This item was reviewed with the Finance/Administration Committee on April 25, 2017.

DISCUSSION

Section 53646 of the California Government Code encourages the Treasurer to annually present a statement of investment policy to the Board for their consideration at a public meeting. The policy has been reviewed to ensure its continued compliance with the California Government Code and updated for clarity, and in response to recent regulatory changes. Key changes include:

- Existing law authorizes the Board to delegate its authority to manage investments to the Director of Finance acting as Treasurer of the District. The investment policy has been updated to clearly reflect this delegation.
- The investment policy has been updated to clearly reflect that investment of bond proceeds is governed by the bond documents, not by the policy.
- The Money Market Mutual Fund investment option has been narrowed in response to recent regulatory changes that make some of these investments impractical for District purposes. New regulations require some of these investments to have a "floating" Net Asset Value which would require new, daily tracking that is extremely time- and staff-intensive. In addition, under unusual circumstances investors may be unable to access their invested funds, compromising their liquidity. The policy has been updated to clarify that the District will only invest in Money Market Mutual Funds not subject to this new requirement.

Funds Available FY:		Budget Code:	
DEPARTMENT SUBMITTING: Finance	DEPARTMENT MANAGE	GER or DIRECTOR:	APPROVED: Melanfor & Cearlo General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Investment Policy Annual Review April 25, 2017 Page 2

- In the updated policy, investments in Certificates of Deposit (CDs) have been limited to the maximum amount insured by the Federal Deposit Insurance Corporation (FDIC). Without this limitation, staff would need to carefully and regularly evaluate the credit characteristics of the individual banks in whose CDs the District is invested and any collateral posted to secure those CDs, which in either case is a very specialized and time-consuming undertaking.
- The policy also has been updated in a continued effort to make it comprehensible and functional as a reference document. For example, the maturity limitation on the portfolio is now clearly stated at the front of the policy; rating requirements are discussed early in the body of the policy, summarized in an exhibit, and presented consistently throughout the policy; and technical clarifications have been made.

The proposed policy with changes marked, and the proposed policy in unmarked form are attached.

This review supports the District's Strategic Plan Goal for Long-Term Financial Stability.

Attachments

I:\Sec\2017 Board Related Items\042517 Board Agenda Items\FIN - BD1 - Investment Policy Annual Review 042517.doc



Policy 4.07R

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SUPERSEDES

26 APR 16 28 APR 15

INVESTMENT POLICY

IT IS THE POLICY OF THE EAST BAY MUNICIPAL UTILITY DISTRICT TO:

Invest District funds and funds managed by the District on behalf of its Joint Powers Authorities (JPAs) in compliance with investment criteria for safety, liquidity, yield and diversity as set forth herein. Investments shall be in securities with a range of maturities to provide a high rate of return on investments while providing adequate security and liquidity to pay demands when due.

Authority

Section 53600 et. seq. of the California Government Code (Code), and Article 7 in Chapter 6 of the Municipal Utility District Act (M.U.D. Act) govern the investment of idle monies of the District. Board Resolution No. 33232 01 reaffirms the delegation, to the Director of Finance as the Treasurer, the authority and responsibility to invest idle monies of the District. The investment of bond proceeds are specifically defined in individual bond indenture documents and are not included in this policy. Section 53635 of the Code defines how investments are to be handled for Joint Powers Authorities.

<u>Delegation of</u> <u>Authority</u>

The authority and responsibility to invest idle monies of the District is delegated to the Director of Finance as the Treasurer.

No Bond Proceeds

The investment of bond proceeds is specifically defined in individual bond indenture documents and is not included in this policy.

Investment Criteria

Criteria for selecting investments shall:

- adhere to the prudent investor standard, described in Section 53600.3 of the Code as follows: "when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency," and
- conform with the Code and M.U.D. Act, and
- have the following objectives, in order of priority:
- Safety The District's ability to recover principal and interest. Investments shall be made
 that will seek to ensure the preservation of principal and interest and minimize risk to the
 greatest extent possible. It is the primary duty of the Treasurer to protect, preserve and
 maintain cash and investments on behalf of the District.
- Liquidity The District's ability to have cash available when needed to support expenditure
 cycles and budgetary objectives. The average maturity of the portfolio shall not exceed
 720 days in order to balance liquidity and yields.
- 3. Yield The District's Aability to provide maximum return on the District's investments while conforming to the safety and liquidity criteria above.

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4. Diversity — The District's Aability 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 maximum share of the portfolio, single issuer and single issue holdings, and maturity, rating and other restrictions where applicable.

Maturity

The weighted average maturity of the portfolio shall not exceed 720 days.

Rating Agencies and Rating Requirements

As outlined below, some Investment Options have rating requirements. In that context, Rating Agencies is defined as:

- Standard & Poor's Financial Services (S&P),
- Moody's Investors Service (Moody's), and
- Fitch Ratings (Fitch), only.

Ratings requirements:

- are provided using the S&P scale and should be read as "or equivalent" to other Rating
 Agencies scales. Rating Agencies scales are included for reference in Exhibit 1.
- apply at the time of purchase only, with subsequent downgrades below requirement levels
 prompting a case-by-case evaluation of the investment, and
- only apply to the Rating Agencies rating the security.

Investment Options

The District is able to purchase investments in the instruments listed in this section as allowed and defined under Section 53600 et. seq. of the Code, Article 7 in Chapter 6 of the M.U.D. Act, Board Resolutions, and via this policy. As used in this section, the term "Portfolio" refers to each investment portfolio managed by the District.

1. United States Treasury Obligations

- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the purchase settlement date
- Minimum Rating: n/a
- Other Restrictions: none

2. <u>United States Government Agencies' Obligations</u>

Under this subsection, only obligations issued by the following agencies are permitted:

- o Federal Agricultural Mortgage Corporation (Farmer Mac)
- o Federal Farm Credit Bank (FFCB)
- o Federal Home Loan Bank (FHLB)
- Federal Home Loan Mortgage Corporation (FHLMC)
- Federal National Mortgage Association (FNMA)
- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: 40% of the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the purchase settlement date
- Minimum Rating: n/a
- Other Restrictions: none

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3. State of California, Local Agency Investment Fund (LAIF)

- Maximum Share of Portfolio: as determined by Section 16429.1 of the Code
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: n/a
- Other Restrictions: none

4. Local Government Investment Pools

Under this subsection, only obligations of the following agencies are permitted:

- o California Asset Management Program (CAMP)
- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: Ratings of <u>AAAm A1, P1 or F1</u> by <u>at least one Rating Agency either Standard & Poor's (S&P), Moody's Investors Service (Moody's), or Fitch Ratings (Fitch) respectively
 </u>
- Other Restrictions: none

5. Money Market Mutual Funds

<u>Under this subsection, only Money Market Mutual Funds with stable, non-floating NAV</u> (Net Asset Value, the value of assets divided by number of shares) are permitted

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Fund Limit: 5% of Money Market Mutual Fund's assets in the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: AAAm by at least two Rating Agencies
 - if rated, fund rating of AAA (or equivalent) by at least two of S&P, Moody's, or
 Fitch
 - if unrated, fund with assets under management in excess of \$500,000,000
 using an advisor registered or exempt from registration with the Securities and
 Exchange Commission (SEC) with no less than five years' experience
 investing in instruments allowed under this policy
- Other Restrictions: n/a

6. Certificates of Time Deposit

Code Section 53601.8 allows investments in deposits placed with a private sector entity that assists in the placement of deposits with eligible financial institutions located in the United States. Under this subsection, only such purchases are permitted.

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- Uncollateralized:

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Cellateralized Certificates of Time Deposits and Negotiable Certificates of Deposit
- Maximum Issuer Limit: \$100,000 per Bank or Savings & Loan, or maximum FDIC insured (\$250,000 as of April 2017)
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five one (51) years from the purchase settlement date
- Minimum Rating: AA- by at least one Rating Agencycredit worthiness/solvency of the banking institution as evaluated by an S&P, Moody's, or Fitch will be an important consideration
- Other Restrictions:
 - Deposits must be supported by a Contract for Deposit of Money with the depositing bank
 - Investment in local branches within the District, whenever possible Collateralized:
 - Maximum Share of Portfolio: 20% of the Portfolio when added together with Uncollateralized Certificates of Time Deposits and Negotiable Certificates of Deposit
 - Maximum Issuer Limit: unlimited
 - Maximum Issue Limit: Deposits over \$100,000 will be collateralized in accordance with Sections 53651 and 53652 of the California Government Code
 - e Maximum Maturity: Not to exceed five (5) years from the purchase date
 - Minimum Rating: credit worthiness/solvency of the banking institution as evaluated by S&P, Moody's, or Fitch will be an important consideration
 - Other Restrictions:
 - Deposits must be supported by a Contract for Deposit of Money with the depositing bank
 - Investment in local branches within the District, whenever possible

7. Negotiable Certificates of Deposit

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Uncollateralized Certificates of Time Deposits and Collateralized Certificates of Time Deposits
- Maximum Issuer Limit: maximum FDIC insured (\$250,000 as of April 2016/2017)
- Maximum Issue Limit: 10% of issue
- Maximum Maturity: Not to exceed five (5) years from the purchasesettlement date
- Minimum Rating: AA_(or equivalent) or higher, by all <u>Rating Agencies</u> rating agencies rating the security
- Other Restrictions: Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more.

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8. Commercial Paper

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: 10% of outstanding amount for the issuer
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the purchasesettlement date
- Minimum Rating: <u>A-1+ from at least one Rating Agency Highest available rating only by S&P, Moody's, or Fitch</u>
- Other Restrictions: issued by an entity that is, at the time of purchase:
 - o organized and operating in the United States as a general corporation, with total assets exceeding \$500,000,000 and debt (other than commercial paper) rated A or better by <u>at least one Rating Agency either S&P, Moody's, or Fitch;</u> or
 - o is organized within the United States as a special purpose corporation, trust, or limited liability company, with program wide credit enhancements including, but not limited to, overcollateralization, letters of credit, or a surety bond, <u>and</u> has commercial paper that is rated A-1 by at least one Rating Agency, P-1 or F-1 by either S&P, Moody's or Fitch respectively

9. Medium Term Corporate Notes

- Maximum Share of Portfolio: 30% of the Portfolio
- Maximum Issuer Limit: 10% of the Portfolio
- Maximum Issue Limit: 5% of original issue amount
- Maximum Maturity: Not to exceed 5 years from the purchase settlement date
- Minimum Rating: AA
 <u>(or equivalent) or better from at least one Rating Agency, and not lower werse</u> than A (or equivalent) by any Rating Agency at least of S&P, Moody's, or Fitch
- Other Restrictions: issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.

10. Repurchase Agreements

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the purchase settlement date
- Minimum Rating: n/a
- Other Restrictions:
 - Collateral may only be in any securities authorized in items 1, or 2-3 or 8
 - o A Master Repurchase Agreement must be on file with the District
 - Security <u>must be marked</u> to market on a daily basis and delivered to the District's custodial bank at a market value of at least 102%
 - Primarily used as a limited term investment and a vehicle to fill particular dates and amounts

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11. Municipal Obligations

Under this subsection, only registered obligations of the following agencies are permitted:

- o Any local agency within the State of California
- Registered treasury obligations of the State of California
- Municipal Bonds:
 - Maximum Share of Portfolio: 40% of the Portfolio when added together with Municipal Notes
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue Limit: 10% of original issue amount
 - Maximum Maturity: Not to exceed five (5) years or with a put provision within five
 (5) years of purchasesettlement date
 - o Minimum Rating: AA- or equivalent by at least one Rating Agency of S&P, Moody's, or Fitch, and not lower than A by any Rating Agency
 - o Other Restrictions: If a rating is revised downwards at any time, an evaluation will be made to determine if the notes should be sold none
- Municipal Notes:
 - Maximum Share of Portfolio: 40% of the Portfolio together with Municipal Bonds
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue limit: 10% of original issue amount
 - o Maximum Maturity: n/a
 - Minimum Rating: Notes maturing within 365 days must have a rating of SP-1±,
 MIG-1, or F-1 by from at least one Rating Agencyeither S&P, Moody's, or Fitch respectively
 - Other Restrictions: If a rating is revised downwards at any time, an evaluation will be made to determine if the notes should be sold none

Investment Placement

Investment placement shall be determined by, but not limited to, continual evaluation and projection of market conditions, interest rate trends, cash flow needs, economic data, yield curves, and interest rate forecasts. Additionally, for investments purchased or sold in the secondary market, the Treasurer will make best efforts will be made to obtain at least three quotations from Purchasing Entities (as defined below) or obtain timely and verifiable third-party market pricing data for the investment in question dealers, brokers, banks or savings and loan associations before finalizing any investment purchase for all investments in excess of \$1 million. The combination of these factors shall determine where, in what denomination, and for what maturity investments are made.

Selling Securities Prior To Maturity

When selling securities prior to maturity, principal losses are only allowable to_either:

- if the sale of securities is necessary to meet payment obligations.
- to comply with this policy, while considering the impact of the sale(s); or
- if the proposed sale and is to be made in conjunction with a purchase and the proposed sale in combination with the subsequent purchase can enhance the Portfolio's yield over the life of the new security on a total return basis; or if the sale of securities is necessary to meet payment obligations.

Collateral

Securities placed with agents of depository shall at all times be maintained as specified in District Resolution 33232-01 in one or more trust companies, State or national banks located within California, the Federal Reserve Bank, or with any state or national bank located in any city designated as a federal reserve city by the Board of Governors of the Federal Reserve System, and to take from any such banks or trust companies receipts for securities so deposited. Requests for Collateral substitution and releases are subject to the Treasurer's written approval.

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Purchasing Entities

Investments will be purchased from either:

- Primary Dealers as designated by the Federal Reserve Bank of New York.
- National or California State Chartered Banks
- Federal or California Chartered Savings Institution,
- Broker-Dealers registered with the State of California, or
- Issuers of securities eligible for purchase by the District.

In addition, these institutions must be

- be registered by the Securities and Exchange Commission (SEC).
- be members in good standing of the Financial Industry Regulatory Authority (FINRA),

The Treasurer District shall maintain a current eligible list of established dealers, brokers, banks and savings and loan associations with which securities trading and placement of funds are authorized. Strong capital base and credit worthings are primary criteria for inclusion on the approved list.

Additionally, to be placed on the eligible list, individuals need to certify in writing that they have read, understood, and agree to comply with this policy, where applicable, by completing and filing with the District the 'Certification of Compliance with Investment Policy' included in this policy as Exhibit 2.

Eligibility may be revoked at any time, in the District's sole discretion, for any reason, including but not limited to, failure to meet the above requirements.

Investment Security Trade Confirmations and **Settlements**

To ensure a high degree of internal control, the District shall comply with the following:

- All Securities purchased from dealers and brokers shall be held in safekeeping by the District's custodial bank, a national bank, a State chartered bank or trust company, established for this purpose as someone other than the selling party of the security. Securities purchased will be covered by a trust or safekeeping receipt in a manner that establishes the District's ownership. All transactions require delivery of the security prior to payment for the security (delivery vs. payment).
- 2. All trade confirmations shall be received directly and reviewed for conformity to the original transaction by an individual other than the person originating the transaction. Any discrepancies will be brought to the attention of the Treasurer.

Fund Wire Procedures

Payment for securities purchased from broker dealers that are incligible to provide safekeeping will be made through the District's custodial bank. Funds will only be transferred subsequent but immediately following the custodial bank's acknowledgment that they are prepared to make settlement on the terms and conditions specified by the District. Payment for securities purchased from bank investment departments that will be safe kept with the trust department of the bank will be made immediately upon confirmation of the trade.

Review And Reporting Requirements

On a monthly basis, in accordance with Section 53607 of the Code, the Treasurer shall prepare and submit a report to the General Manager and the Board of Directors listing investment transactions.

On a quarterly basis, in accordance with Section 53646 of the Code, the Treasurer shall may prepare and submit a report to the General Manager and the Board of Directors which shall include the type of investment, issuer, date of maturity, par and dollar amount invested on all securities, investments and moneys held by the District, listing investment transactions for the quarter and providing provide an investment summary by security type, percent of the portfolio, investment yield and the remaining period of investment to maturity.

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On an annual basis, in accordance with Section 53646 of the Code, an investment policy may be presented to the Board for consideration at a public meeting. In conjunction with the investment policy consideration, the Board shall also annually review the delegation of its authority for the management of investments to the Treasurer.

Performance Review And Internal Control

Office of Internal Audit

The Office of Internal Audit will periodically audit the investment portfolio to evaluate the effectiveness of the District's investment program as well as its compliance with the Investment Policy. These audits will supplement the annual review by the District's external auditors.

Finance Department

The Treasurer will review the investment portfolio monthly for compliance with the Investment Policy and make recommendations for changes and improvements where warranted.

Authority

Resolution No. 33019-96 on December 10, 1996

Amended by Resolution No. 33134-99 on January 26, 1999

Amended by Resolution No. 33232-01 on January 9, 2001

Amended by Resolution 33287-02 on January 22, 2002

Amended by Resolution 33350-03 on February 25, 2003

Amended by Resolution 33390-04 on January 27, 2004

Amended by Resolution 33464-05 on February 22, 2005

Amended by Resolution 33516-06 on January 24, 2006

Amended by Resolution 33585-07 on March 13, 2007

Approved by Resolution 33658-08, February 26, 2008

Approved by Resolution 33702-09, February 24, 2009

Approved by Resolution 33752-10, January 26,2010

Approved by Resolution 33792-10, November 23, 2010

Approved by Resolution 33871-12, April 24, 2012

Approved by Resolution 33920-13, March 26, 2013

Reaffirmed by Motion 056-14, March 25, 2014

Approved by Resolution 34027-15, April 28, 2015

Approved by Resolution 34079-16, April 26, 2016

Approved by Resolution XXXXX-17, April 25, 2017



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SUPERSEDES

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INVESTMENT POLICY

IT IS THE POLICY OF THE EAST BAY MUNICIPAL UTILITY DISTRICT TO:

Invest District funds and funds managed by the District on behalf of its Joint Powers Authorities (JPAs) in compliance with investment criteria for safety, liquidity, yield and diversity as set forth herein. Investments shall be in securities with a range of maturities to provide a high rate of return on investments while providing adequate security and liquidity to pay demands when due.

Authority

Section 53600 et. seq. of the California Government Code (Code), and Article 7 in Chapter 6 of the Municipal Utility District Act (M.U.D. Act) govern the investment of idle monies of the District. Section 53635 of the Code defines how investments are to be handled for Joint Powers Authorities.

Delegation of Authority

The authority and responsibility to invest idle monies of the District is delegated to the Director of Finance as the Treasurer.

No Bond Proceeds

The investment of bond proceeds is specifically defined in individual bond indenture documents and is not included in this policy.

Investment Criteria

Criteria for selecting investments shall:

- adhere to the prudent investor standard, described in Section 53600.3 of the Code as follows: "when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency," and
- conform with the Code and M.U.D. 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 ensure the preservation of principal and interest and minimize risk to the greatest extent possible. It is the primary duty of the 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. Diversity 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 maximum share of the portfolio, single issuer and single issue holdings, and maturity, rating and other restrictions where applicable.

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Maturity

The weighted average maturity of the portfolio shall not exceed 720 days.

Rating Agencies and Rating Requirements

As outlined below, some Investment Options have rating requirements. In that context, Rating Agencies is defined as:

- Standard & Poor's Financial Services (S&P),
- Moody's Investors Service (Moody's), and
- Fitch Ratings (Fitch), only.

Ratings requirements:

- are provided using the S&P scale and should be read as "or equivalent" to other Rating Agencies scales. Rating Agencies scales are included for reference in Exhibit 1,
- apply at the time of purchase only, with subsequent downgrades below requirement levels prompting a case-by-case evaluation of the investment, and
- only apply to the Rating Agencies rating the security.

Investment Options

The District is able to purchase investments in the instruments listed in this section as allowed and defined under Section 53600 et. seq. of the Code, Article 7 in Chapter 6 of the M.U.D. Act, Board Resolutions, and via this policy. As used in this section, the term "Portfolio" refers to each investment portfolio managed by the District.

1. United States Treasury Obligations

- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the settlement date
- Minimum Rating: n/a
- Other Restrictions: none

2. United States Government Agencies' Obligations

Under this subsection, only obligations issued by the following agencies are permitted:

- o Federal Agricultural Mortgage Corporation (Farmer Mac)
- o Federal Farm Credit Bank (FFCB)
- o Federal Home Loan Bank (FHLB)
- o Federal Home Loan Mortgage Corporation (FHLMC)
- Federal National Mortgage Association (FNMA)
- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: 40% of the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the settlement date
- Minimum Rating: n/a
- Other Restrictions: none

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3. State of California, Local Agency Investment Fund (LAIF)

- Maximum Share of Portfolio: as determined by Section 16429.1 of the Code
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: n/a
- Other Restrictions: none

4. Local Government Investment Pools

Under this subsection, only obligations of the following agencies are permitted:

- o California Asset Management Program (CAMP)
- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: Ratings of AAAm by at least one Rating Agency
- Other Restrictions: none

5. Money Market Mutual Funds

Under this subsection, only Money Market Mutual Funds with stable, non-floating NAV (Net Asset Value, the value of assets divided by number of shares) are permitted

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Fund Limit: 5% of Money Market Mutual Fund's assets in the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: AAAm by at least two Rating Agencies
- Other Restrictions: n/a

6. Certificates of Time Deposit

Code Section 53601.8 allows investments in deposits placed with a private sector entity that assists in the placement of deposits with eligible financial institutions located in the United States. Under this subsection, only such purchases are permitted.

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Negotiable Certificates of Deposit
- Maximum Issuer Limit: maximum FDIC insured (\$250,000 as of April 2017)
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed one (1) year from the settlement date
- Minimum Rating: AA- by at least one Rating Agency
- Other Restrictions:
 - o Investment in local branches within the District, whenever possible

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7. Negotiable Certificates of Deposit

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Certificates of Time Deposits
- Maximum Issuer Limit: maximum FDIC insured (\$250,000 as of April 2017)
- Maximum Issue Limit: 10% of issue
- Maximum Maturity: Not to exceed five (5) years from the settlement date
- Minimum Rating: AA- by all Rating Agencies
- Other Restrictions: Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more.

8. Commercial Paper

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: 10% of outstanding amount for the issuer
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the settlement date
- Minimum Rating: A-1+ from at least one Rating Agency
- Other Restrictions: issued by an entity that is, at the time of purchase:
 - organized and operating in the United States as a general corporation, with total assets exceeding \$500,000,000 and debt (other than commercial paper) rated A or better by at least one Rating Agency; or
 - o is organized within the United States as a special purpose corporation, trust, or limited liability company, with program wide credit enhancements including, but not limited to, overcollateralization, letters of credit, or a surety bond, <u>and</u> has commercial paper that is rated A-1+ by at least one Rating Agency

9. Medium Term Corporate Notes

- Maximum Share of Portfolio: 30% of the Portfolio
- Maximum Issuer Limit: 10% of the Portfolio
- Maximum Issue Limit: 5% of original issue amount
- Maximum Maturity: Not to exceed 5 years from the settlement date
- Minimum Rating: AA- from at least one Rating Agency, and not lower than A by any Rating Agency
- Other Restrictions: issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.

10. Repurchase Agreements

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the settlement date
- Minimum Rating: n/a
- Other Restrictions:
 - o Collateral may only be in any securities authorized in items 1, or 2
 - o A Master Repurchase Agreement must be on file with the District
 - Security must be marked to market on a daily basis and delivered to the District's custodial bank at a market value of at least 102%

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11. Municipal Obligations

Under this subsection, only registered obligations of the following agencies are permitted:

- o Any local agency within the State of California
- o the State of California
- Municipal Bonds:
 - Maximum Share of Portfolio: 40% of the Portfolio when added together with Municipal Notes
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue Limit: 10% of original issue amount
 - Maximum Maturity: Not to exceed five (5) years or with a put provision within five
 (5) years of settlement date
 - Minimum Rating: AA- or equivalent by at least one Rating Agency, and not lower than A by any Rating Agency
 - o Other Restrictions: none
- Municipal Notes:
 - o Maximum Share of Portfolio: 40% of the Portfolio together with Municipal Bonds
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue limit: 10% of original issue amount
 - o Maximum Maturity: n/a
 - Minimum Rating: Notes maturing within 365 days must have a rating of SP-1+ from at least one Rating Agency
 - o Other Restrictions: none

Investment Placement

Investment placement shall be determined by, but not limited to, continual evaluation and projection of market conditions, interest rate trends, cash flow needs, economic data, yield curves, and interest rate forecasts. Additionally, for investments purchased or sold in the secondary market, best efforts will be made to obtain at least three quotations from Purchasing Entities (as defined below) or obtain timely and verifiable third-party market pricing data for the investment in question. The combination of these factors shall determine where, in what denomination, and for what maturity investments are made.

Selling Securities Prior To Maturity

When selling securities prior to maturity, principal losses are only allowable either:

- if the sale of securities is necessary to meet payment obligations,
- to comply with this policy, while considering the impact of the sale(s), or
- if the proposed sale is to be made in conjunction with a purchase and the proposed sale in combination with the subsequent purchase can enhance the Portfolio's yield.

Collateral

Securities placed with agents of depository shall at all times be maintained as specified in District Resolution 33232-01 in one or more trust companies, State or national banks located within California, the Federal Reserve Bank, or with any state or national bank located in any city designated as a federal reserve city by the Board of Governors of the Federal Reserve System, and to take from any such banks or trust companies receipts for securities so deposited. Requests for Collateral substitution and releases are subject to the Treasurer's written approval.

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Purchasing Entities

Investments will be purchased from either:

- Primary Dealers as designated by the Federal Reserve Bank of New York,
- National or California State Chartered Banks,
- Federal or California Chartered Savings Institution,
- Broker-Dealers registered with the State of California, or
- Issuers of securities eligible for purchase by the District.

In addition, these institutions must:

- be registered by the Securities and Exchange Commission (SEC),
- be members in good standing of the Financial Industry Regulatory Authority (FINRA).

The District shall maintain a current eligible list of established dealers, brokers, banks and savings and loan associations with which securities trading and placement of funds are authorized.

Additionally, to be placed on the eligible list, individuals need to certify in writing that they have read, understood, and agree to comply with this policy, where applicable, by completing and filing with the District the 'Certification of Compliance with Investment Policy' included in this policy as Exhibit 2.

Eligibility may be revoked at any time, in the District's sole discretion, for any reason, including but not limited to, failure to meet the above requirements.

Trade Confirmations and Settlements

To ensure a high degree of internal control, the District shall comply with the following:

- 1. All Securities purchased from dealers and brokers shall be held in safekeeping by the District's custodial bank, a national bank, a State chartered bank or trust company, established for this purpose as someone other than the selling party of the security. Securities purchased will be covered by a trust or safekeeping receipt in a manner that establishes the District's ownership. All transactions require delivery of the security prior to payment for the security (delivery vs. payment).
- 2. All trade confirmations shall be received directly and reviewed for conformity to the original transaction by an individual other than the person originating the transaction. Any discrepancies will be brought to the attention of the Treasurer.

Review And Reporting Requirements

On a monthly basis, in accordance with Section 53607 of the Code, the Treasurer shall prepare and submit a report to the General Manager and the Board of Directors listing investment transactions.

On a quarterly basis, in accordance with Section 53646 of the Code, the Treasurer may prepare and submit a report to the General Manager and the Board of Directors which shall include the type of investment, issuer, date of maturity, par and dollar amount invested on all securities, investments and moneys held by the District, and provide an investment summary by security type, percent of the portfolio, investment yield and the remaining period of investment to maturity.

On an annual basis, in accordance with Section 53646 of the Code, an investment policy may be presented to the Board for consideration at a public meeting. In conjunction with the investment policy consideration, the Board shall also annually review the delegation of its authority for the management of investments to the Treasurer.

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Performance Review And Internal Control

Office of Internal Audit

The Office of Internal Audit will periodically audit the investment portfolio to evaluate the effectiveness of the District's investment program as well as its compliance with the Investment Policy. These audits will supplement the annual review by the District's external auditors.

Finance Department

The Treasurer will review the investment portfolio monthly for compliance with the Investment Policy and make recommendations for changes and improvements where warranted.

Authority

Resolution No. 33019-96 on December 10, 1996

Amended by Resolution No. 33134-99 on January 26, 1999

Amended by Resolution No. 33232-01 on January 9, 2001

Amended by Resolution 33287-02 on January 22, 2002

Amended by Resolution 33350-03 on February 25, 2003

Amended by Resolution 33390-04 on January 27, 2004

Amended by Resolution 33464-05 on February 22, 2005

Amended by Resolution 33516-06 on January 24, 2006

Amended by Resolution 33585-07 on March 13, 2007

Approved by Resolution 33658-08, February 26, 2008

Approved by Resolution 33702-09, February 24, 2009

Approved by Resolution 33752-10, January 26,2010

Approved by Resolution 33792-10, January 20,2010

Approved by Resolution 33792-10, November 23, 2010

Approved by Resolution 33871-12, April 24, 2012

Approved by Resolution 33920-13, March 26, 2013

Reaffirmed by Motion 056-14, March 25, 2014

Approved by Resolution 34027-15, April 28, 2015

Approved by Resolution 34079-16, April 26, 2016

Approved by Resolution XXXXX-17, April 25, 2017

EXHIBIT 1 RATING AGENCIES' SCALES

For purposes of Investment Policy 4.07 the term "Rating Agencies" is defined as: Standard & Poor's Financial Services (S&P), Moody's Investors Service (Moody's), and Fitch Ratings (Fitch).

Ratings requirements are provided using the S&P scale and should be read as "or equivalent" to other Rating Agencies scales. The equivalencies are provided in the tables below.

EXAMPLE

Investment Option 6, Certificates of Time Deposits, shows:

"Minimum Rating: AA- by at least one Rating Agency"

This requirement should be read as:

"Minimum Rating: AA- or equivalent by at least one Rating Agency."

To determine the equivalent rating in the table below, find the AA- rating under the S&P column and read across the row to find the Moody's equivalent rating of Aa3 and the Fitch equivalent rating of AA-. Accordingly, a Certificate of Time Deposit is equivalent as an investment if it is rated AA- by S&P, Aa3 by Moody's, or AA- by Fitch.

INVESTMENT-GRADE RATING SCALES

L	ONG-TERM D	EBT	
S&P	MOODY'S	FITCH	
AAA	Aaa	AAA	
AA+	Aa1	AA+	
AA	Aa2	AA	
AA-	Aa3	AA-	←Minimum rating required for district investments
A+	A1	A+	
Α	A2	Α	
A-	A3	A-	
BBB+	Baa1	BBB+	
BBB	Baa2	BBB	
	Baa3	BBB-	l .

SI	HORT-TERM D	EBT	
S&P	MOODY'S	FITCH	
A-1+	P-1	F1+	←Minimum rating required for district investments
A-1	-	F1	
			3
A-2	P-2	F2	

	FUNDS		
S&P	MOODY'S	FITCH	
AAAm	Aaa-mf	AAAf	←Minimum rating required for district investments
AAm	Aa-mf	AAf	
	T .		
Am	A-mf	Af	

EXHIBIT 2

East Bay Municipal Utility District Certification of Compliance with Investment Policy

The East Bay Municipal Utility District (the District), under Policy 4.07 (the Investment Policy), requires that securities trading and placement of funds be conducted only with eligible Purchasing Entities. The Investment Policy also specifies that the District must obtain written certification that eligible Purchasing Entities have read, understood, and agree to comply with the Investment Policy, where applicable. This certification is necessary to be included on an approved list of Purchasing Entities that are eligible to conduct investment transactions with the District. The District has no obligation to enter into securities trading and/or placement of funds transactions with any or all Purchasing Entities on the list. The District retains the sole and exclusive discretion to determine with which of the Purchasing Entities, if any, to engage in individual investment transactions. Eligibility may be revoked at any time, at the District's sole discretion, for any reason, including but not limited to, failure to meet the requirements of the policy and this exhibit.

Please complete the sections below, sign and return this completed form if you wish to be considered for inclusion on the approved list of Purchasing Entities eligible to conduct investment transactions with the District.

Please send completed form:

and

electronically, to:

via mail, to:

Title

damien.charlety@ebmud.com Damien Charléty East Bay Municipal Utility District 375 11th Street, MS809 Oakland, CA 94607 A. Entity Name B. My entity is a: (choose all that apply, at least one must be checked for eligibility) Primary Dealer as designated by the Federal Reserve Bank of New York National or California State Chartered Bank Federal or California Chartered Savings Institution Broker-Dealer registered with the State of California AND I certify that my entity is: (both must be checked for eligibility) registered by the Securities and Exchange Commission (SEC) a member in good standing of the Financial Industry Regulatory Authority (FINRA) **C.** My entity is an: Issuer of securities eligible for purchase by the District D. My entity: participates in the District's Contract Equity Program I certify that I have read, understood, and agree to comply where applicable with the District's Investment Policy. Sign Name **Print Name**

Date

Draft Prepared

ADOPTING REVISED PO	OLICY 4.07, "INVESTMENT POLICY"	
Introduced by Director	; Seconded by Director	
	9 (Hertzberg) went into effect on January 1, 2 ny upcoming proposed issuance of debt by sta	
Utility District to update and revise Policy compliance with SB 1029, and to affirm ex	of the Board of Directors of the East Bay Musy 4.07 entitled "Investment Policy" to ensure xisting delegation of authority for the manage e Director of Finance, who is also acting as the	ement of
· · · · · · · · · · · · · · · · · · ·	by the Board of Directors of the East Bay M copy of which is attached hereto as Exhibit A	-
ADOPTED this 25th day of April, 2017 by	y the following vote:	
AYES:		ж
NOES:		
ABSENT:		
ABSTAIN:		
ATTEST:		President
So	ecretary	
APPROVED AS TO FORM AND PROCI	EDURE	

General Counsel

RESOLUTION NO. _____

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INVESTMENT POLICY

IT IS THE POLICY OF THE EAST BAY MUNICIPAL UTILITY DISTRICT TO:

Invest District funds and funds managed by the District on behalf of its Joint Powers Authorities (JPAs) in compliance with investment criteria for safety, liquidity, yield and diversity as set forth herein. Investments shall be in securities with a range of maturities to provide a high rate of return on investments while providing adequate security and liquidity to pay demands when due.

Authority

Section 53600 et. seq. of the California Government Code (Code), and Article 7 in Chapter 6 of the Municipal Utility District Act (M.U.D. Act) govern the investment of idle monies of the District. Board Resolution No. 33232-01 reaffirms the delegation, to the Director of Finance as the Treasurer, the authority and responsibility to invest idle monies of the District. The investment of bend proceeds are specifically defined in individual bend indenture documents and are not included in this policy. Section 53635 of the Code defines how investments are to be handled for Joint Powers Authorities.

Delegation of Authority

The authority and responsibility to invest idle monies of the District is delegated to the Director of Finance as the Treasurer.

No Bond Proceeds

The investment of bond proceeds is specifically defined in individual bond indenture documents and is not included in this policy.

Investment Criteria

Criteria for selecting investments shall:

- adhere to the prudent investor standard, described in Section 53600.3 of the Code as follows: "when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency." and
- conform with the Code and M.U.D. Act, and
- have the following objectives, in order of priority:
- Safety The District's ability to recover principal and interest. Investments shall be made
 that will seek to ensure the preservation of principal and interest and minimize risk to the
 greatest extent possible. It is the primary duty of the Treasurer to protect, preserve and
 maintain cash and investments on behalf of the District.
- Liquidity The District's ability to have cash available when needed to support expenditure
 cycles and budgetary objectives. The average maturity of the portfolio shall not exceed
 720 days in order to balance liquidity and yields.
- 3. Yield The District's Aability to provide maximum return on the District's investments while conforming to the safety and liquidity criteria above.

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4. Diversity — The District's Aability 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 maximum share of the portfolio, single issuer and single issue holdings, and maturity, rating and other restrictions where applicable.

Maturity

The weighted average maturity of the portfolio shall not exceed 720 days.

Rating Agencies and Rating Requirements

As outlined below, some Investment Options have rating requirements. In that context, Rating Agencies is defined as:

- Standard & Poor's Financial Services (S&P).
- Moody's Investors Service (Moody's), and
- Fitch Ratings (Fitch), only.

Ratings requirements:

- are provided using the S&P scale and should be read as "or equivalent" to other Rating Agencies scales. Rating Agencies scales are included for reference in Exhibit 1.
- apply at the time of purchase only, with subsequent downgrades below requirement levels prompting a case-by-case evaluation of the investment, and
- only apply to the Rating Agencies rating the security.

Investment Options

The District is able to purchase investments in the instruments listed in this section as allowed and defined under Section 53600 et. seq. of the Code, Article 7 in Chapter 6 of the M.U.D. Act, Board Resolutions, and via this policy. As used in this section, the term "Portfolio" refers to each investment portfolio managed by the District.

1. United States Treasury Obligations

- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the purchasesettlement date
- Minimum Rating: n/a
- Other Restrictions: none

2. United States Government Agencies' Obligations

Under this subsection, only obligations issued by the following agencies are permitted:

- o Federal Agricultural Mortgage Corporation (Farmer Mac)
- o Federal Farm Credit Bank (FFCB)
- o Federal Home Loan Bank (FHLB)
- Federal Home Loan Mortgage Corporation (FHLMC)
- o Federal National Mortgage Association (FNMA)
- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: 40% of the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the <u>purchasesettlement</u> date
- Minimum Rating: n/a
- Other Restrictions: none

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3. State of California, Local Agency Investment Fund (LAIF)

- Maximum Share of Portfolio: as determined by Section 16429.1 of the Code
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: n/a
- Other Restrictions: none

4. Local Government Investment Pools

Under this subsection, only obligations of the following agencies are permitted:

- California Asset Management Program (CAMP)
- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: Ratings of <u>AAAm A1, P1 or F1</u> by <u>at least one Rating Agency either</u> Standard & Poor's (S&P), Moody's Investors Service (Moody's), or Fitch Ratings (Fitch) respectively
- Other Restrictions: none

5. Money Market Mutual Funds

<u>Under this subsection, only Money Market Mutual Funds with stable, non-floating NAV</u> (Net Asset Value, the value of assets divided by number of shares) are permitted

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Fund Limit: 5% of Money Market Mutual Fund's assets in the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: AAAm by at least two Rating Agencies
 - if rated, fund rating of AAA (or equivalent) by at least two of S&P, Moody's, or
 Fitch
 - if unrated, fund with assets under management in excess of \$500,000,000
 using an advisor registered or exempt from registration with the Securities and
 Exchange Commission (SEC) with no less than five years' experience
 investing in instruments allowed under this policy
- Other Restrictions: n/a

6. Certificates of Time Deposit

Code Section 53601.8 allows investments in deposits placed with a private sector entity that assists in the placement of deposits with eligible financial institutions located in the United States. Under this subsection, only such purchases are permitted.

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Uncollateralized:

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Collateralized Certificates of Time Deposits and Negotiable Certificates of Deposit
- Maximum Issuer Limit: \$100,000 per Bank or Savings & Loan, or maximum FDIC insured (\$250,000 as of April 2017)
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five one (51) years from the purchase settlement date
- Minimum Rating: <u>AA- by at least one Rating Agencycredit worthiness/solvency of the banking institution as evaluated by an S&P, Moody's, or Fitch will be an important consideration</u>
- Other Restrictions:
 - Deposits must be supported by a Contract for Deposit of Money with the depositing bank
 - Investment in local branches within the District, whenever possible

---Collateralized:

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Uncollateralized Certificates of Time Deposits and Negotiable Certificates of Deposit
- Maximum Issuer Limit: unlimited
- Maximum Issue Limit: Deposits over \$100,000 will be collateralized in accordance with Sections 53651 and 53652 of the California Government Code
- Maximum Maturity: Not to exceed five (5) years from the purchase date
- Minimum Rating: credit worthiness/solvency of the banking institution as evaluated by S&P, Moody's, or Fitch will be an important consideration
- Other Restrictions:
 - Deposits must be supported by a Contract for Deposit of Money with the depositing bank
 - Investment in local branches within the District, whenever possible

7. Negotiable Certificates of Deposit

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Uncollateralized Certificates of Time Deposits and Collateralized Certificates of Time Deposits
- Maximum Issuer Limit: maximum FDIC insured (\$250,000 as of April 2016)
- Maximum Issue Limit: 10% of issue
- Maximum Maturity: Not to exceed five (5) years from the purchase settlement date
- Minimum Rating: AA (or equivalent) or higher, by all Rating Agencies rating the security
- Other Restrictions: Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more.

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8. Commercial Paper

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: 10% of outstanding amount for the issuer
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the purchase settlement date
- Minimum Rating: <u>A-1+ from at least one</u> Rating <u>Agency</u> Highest available rating only by <u>S&P, Moody's, or Fitch</u>
- Other Restrictions: issued by an entity that is, at the time of purchase:
 - o organized and operating in the United States as a general corporation, with total assets exceeding \$500,000,000 and debt (other than commercial paper) rated A or better by <u>at least one Rating Agency either S&P, Moody's, or Fitch;</u> or
 - o is organized within the United States as a special purpose corporation, trust, or limited liability company, with program wide credit enhancements including, but not limited to, overcollateralization, letters of credit, or a surety bond, <u>and</u> has commercial paper that is rated A-1 to yet least one Rating Agency, P-1 or F-1 by either S&P. Moody's or Fitch respectively

9. Medium Term Corporate Notes

- Maximum Share of Portfolio: 30% of the Portfolio
- Maximum Issuer Limit: 10% of the Portfolio
- Maximum Issue Limit: 5% of original issue amount
- Maximum Maturity: Not to exceed 5 years from the purchase settlement date
- Minimum Rating: AA (or equivalent) or better from at least one Rating Agency, and not lower werse than A (or equivalent) by any Rating Agency at least of S&P, Moody's, or Fitch
- Other Restrictions: issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.

10. Repurchase Agreements

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the purchase settlement date
- Minimum Rating: n/a
- Other Restrictions:
 - o Collateral may only be in any securities authorized in items 1, or 2-3 or 8
 - o A Master Repurchase Agreement must be on file with the District
 - Security <u>must be</u> marked to market on a daily basis and delivered to the District's custodial bank at a market value of at least 102%
 - Primarily used as a limited term investment and a vehicle to fill particular dates and amounts

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11. Municipal Obligations

Under this subsection, only <u>registered</u> obligations of the following agencies are permitted:

- Any local agency within the State of California
- Registered treasury obligations of the State of California
- Municipal Bonds:
 - Maximum Share of Portfolio: 40% of the Portfolio when added together with Municipal Notes
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue Limit: 10% of original issue amount
 - Maximum Maturity: Not to exceed five (5) years or with a put provision within five
 (5) years of purchase settlement date
 - o Minimum Rating: AA- or equivalent by at least one Rating Agency of S&P, Moody's, or Fitch, and not lower than A by any Rating Agency
 - Other Restrictions: If a rating is revised downwards at any time, an evaluation will be made to determine if the notes-should be sold-none
- Municipal Notes:
 - o Maximum Share of Portfolio: 40% of the Portfolio together with Municipal Bonds
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue limit: 10% of original issue amount
 - o Maximum Maturity: n/a
 - Minimum Rating: Notes maturing within 365 days must have a rating of SP-1±, MIG-1, or F-1 by from at least one Rating Agencyeither S&P, Meody's, or Fitch respectively
 - Other Restrictions: If a rating is revised downwards at any time, an evaluation will be made to determine if the notes should be sold none

Investment Placement

Investment placement shall be determined by, but not limited to, continual evaluation and projection of market conditions, interest rate trends, cash flow needs, economic data, yield curves, and interest rate forecasts. Additionally, for investments purchased or sold in the secondary market, the Treasurer will make best efforts will be made to obtain at least three quotations from Purchasing Entities (as defined below) or obtain timely and verifiable third-party market pricing data for the investment in question dealers, brokers, banks or savings and loan associations before finalizing any investment purchase for all investments in excess of \$1 million. The combination of these factors shall determine where, in what denomination, and for what maturity investments are made.

Selling Securities Prior To Maturity

When selling securities prior to maturity, principal losses are only allowable to_either.

- if the sale of securities is necessary to meet payment obligations,
- to comply with this policy, while considering the impact of the sale(s); or
- if the proposed sale and is to be made in conjunction with a purchase and the proposed sale in combination with the subsequent purchase can enhance the Portfolio's yield over the life of the new security on a total return basis; or if the sale of securities is necessary to meet payment obligations.

Collateral

Securities placed with agents of depository shall at all times be maintained as specified in District Resolution 33232-01 in one or more trust companies, State or national banks located within California, the Federal Reserve Bank, or with any state or national bank located in any city designated as a federal reserve city by the Board of Governors of the Federal Reserve System, and to take from any such banks or trust companies receipts for securities so deposited. Requests for Collateral substitution and releases are subject to the Treasurer's written approval.

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Purchasing Entities

Investments will be purchased from either:

- Primary Dealers as designated by the Federal Reserve Bank of New York,
- National or California State Chartered Banks,
- Federal or California Chartered Savings Institution.
- Broker-Dealers registered with the State of California. or
- Issuers of securities eligible for purchase by the District.

In addition, these institutions must, be

- be registered by the Securities and Exchange Commission (SEC).
- be members in good standing of the Financial Industry Regulatory Authority (FINRA).

The Treasurer District shall maintain a current eligible list of established dealers, brokers, banks and savings and loan associations with which securities trading and placement of funds are authorized. Strong capital base and credit worthiness are primary criteria for inclusion on the approved list.

Additionally, to be placed on the eligible list, individuals need to certify in writing that they have read, understood, and agree to comply with this policy, where applicable, by completing and filing with the District the 'Certification of Compliance with Investment Policy' included in this policy as Exhibit 2.

Eligibility may be revoked at any time, in the District's sole discretion, for any reason, including but not limited to, failure to meet the above requirements.

Investment
SecurityTrade
Confirmations and
Settlements

To ensure a high degree of internal control, the District shall comply with the following:

- 1. All Securities purchased from dealers and brokers shall be held in safekeeping by the District's custodial bank, a national bank, a State chartered bank or trust company, established for this purpose as someone other than the selling party of the security. Securities purchased will be covered by a trust or safekeeping receipt in a manner that establishes the District's ownership. All transactions require delivery of the security prior to payment for the security (delivery vs. payment).
- 2. All trade confirmations shall be received directly and reviewed for conformity to the original transaction by an individual other than the person originating the transaction. Any discrepancies will be brought to the attention of the Treasurer.

Fund Wire Procedures

Payment for securities purchased from broker dealers that are ineligible to provide safekeeping will be made through the District's custodial bank. Funds will only be transferred subsequent but immediately following the custodial bank's acknowledgment that they are prepared to make settlement on the terms and conditions specified by the District. Payment for securities purchased from bank investment departments that will be safe kept with the trust department of the bank will be made immediately upon confirmation of the trade.

Review And Reporting Requirements On a monthly basis, in accordance with Section 53607 of the Code, the Treasurer shall prepare and submit a report to the General Manager and the Board of Directors listing investment transactions.

On a quarterly basis, in accordance with Section 53646 of the Code, the Treasurer shall-may prepare and submit a report to the General Manager and the Board of Directors which shall include the type of investment, issuer, date of maturity, par and dollar amount invested on all securities, investments and moneys held by the District, listing investment transactions for the quarter and providing provide an investment summary by security type, percent of the portfolio, investment yield and the remaining period of investment to maturity.

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On an annual basis, in accordance with Section 53646 of the Code, an investment policy may be presented to the Board for consideration at a public meeting. In conjunction with the investment policy consideration, the Board shall also annually review the delegation of its authority for the management of investments to the Treasurer.

Performance Review And Internal Control

Office of Internal Audit

The Office of Internal Audit will periodically audit the investment portfolio to evaluate the effectiveness of the District's investment program as well as its compliance with the Investment Policy. These audits will supplement the annual review by the District's external auditors.

Finance Department

The Treasurer will review the investment portfolio monthly for compliance with the Investment Policy and make recommendations for changes and improvements where warranted.

Authority

Resolution No. 33019-96 on December 10, 1996

Amended by Resolution No. 33134-99 on January 26, 1999

Amended by Resolution No. 33232-01 on January 9, 2001

Amended by Resolution 33287-02 on January 22, 2002

Amended by Resolution 33350-03 on February 25, 2003

Amended by Resolution 33390-04 on January 27, 2004

Amended by Resolution 33464-05 on February 22, 2005

Amended by Resolution 33516-06 on January 24, 2006

Amended by Resolution 33585-07 on March 13, 2007

Approved by Resolution 33658-08, February 26, 2008

Approved by Resolution 33703 00. February 24, 2000

Approved by Resolution 33702-09, February 24, 2009

Approved by Resolution 33752-10, January 26,2010

Approved by Resolution 33792-10, November 23, 2010

Approved by Resolution 33871-12, April 24, 2012

Approved by Resolution 33920-13, March 26, 2013

Reaffirmed by Motion 056-14, March 25, 2014

Approved by Resolution 34027-15, April 28, 2015

Approved by Resolution 34079-16, April 26, 2016

Approved by Resolution XXXXX-17, April 25, 2017



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SUPERSEDES

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INVESTMENT POLICY

IT IS THE POLICY OF THE EAST BAY MUNICIPAL UTILITY DISTRICT TO:

Invest District funds and funds managed by the District on behalf of its Joint Powers Authorities (JPAs) in compliance with investment criteria for safety, liquidity, yield and diversity as set forth herein. Investments shall be in securities with a range of maturities to provide a high rate of return on investments while providing adequate security and liquidity to pay demands when due.

Authority

Section 53600 et. seq. of the California Government Code (Code), and Article 7 in Chapter 6 of the Municipal Utility District Act (M.U.D. Act) govern the investment of idle monies of the District. Section 53635 of the Code defines how investments are to be handled for Joint Powers Authorities.

Delegation of Authority

The authority and responsibility to invest idle monies of the District is delegated to the Director of Finance as the Treasurer.

No Bond Proceeds

The investment of bond proceeds is specifically defined in individual bond indenture documents and is not included in this policy.

Investment Criteria

Criteria for selecting investments shall:

- adhere to the prudent investor standard, described in Section 53600.3 of the Code as follows: "when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency," and
- conform with the Code and M.U.D. Act, and
- have the following objectives, in order of priority:
- Safety The District's ability to recover principal and interest. Investments shall be made
 that will seek to ensure the preservation of principal and interest and minimize risk to the
 greatest extent possible. It is the primary duty of the 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. Diversity 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 maximum share of the portfolio, single issuer and single issue holdings, and maturity, rating and other restrictions where applicable.

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Maturity

The weighted average maturity of the portfolio shall not exceed 720 days.

Rating Agencies and Rating Requirements

As outlined below, some Investment Options have rating requirements. In that context, Rating Agencies is defined as:

- Standard & Poor's Financial Services (S&P),
- Moody's Investors Service (Moody's), and
- Fitch Ratings (Fitch), only.

Ratings requirements:

- are provided using the S&P scale and should be read as "or equivalent" to other Rating Agencies scales. Rating Agencies scales are included for reference in Exhibit 1,
- apply at the time of purchase only, with subsequent downgrades below requirement levels prompting a case-by-case evaluation of the investment, and
- only apply to the Rating Agencies rating the security.

Investment Options

The District is able to purchase investments in the instruments listed in this section as allowed and defined under Section 53600 et. seq. of the Code, Article 7 in Chapter 6 of the M.U.D. Act, Board Resolutions, and via this policy. As used in this section, the term "Portfolio" refers to each investment portfolio managed by the District.

1. United States Treasury Obligations

- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the settlement date
- Minimum Rating: n/a
- Other Restrictions: none

2. United States Government Agencies' Obligations

Under this subsection, only obligations issued by the following agencies are permitted:

- o Federal Agricultural Mortgage Corporation (Farmer Mac)
- o Federal Farm Credit Bank (FFCB)
- o Federal Home Loan Bank (FHLB)
- o Federal Home Loan Mortgage Corporation (FHLMC)
- Federal National Mortgage Association (FNMA)
- Maximum Share of Portfolio: Unlimited
- Maximum Issuer Limit: 40% of the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed five (5) years from the settlement date
- Minimum Rating: n/a
- Other Restrictions: none

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3. State of California, Local Agency Investment Fund (LAIF)

- Maximum Share of Portfolio: as determined by Section 16429.1 of the Code
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: n/a
- Other Restrictions: none

4. Local Government Investment Pools

Under this subsection, only obligations of the following agencies are permitted:

- California Asset Management Program (CAMP)
- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: Ratings of AAAm by at least one Rating Agency
- Other Restrictions: none

5. Money Market Mutual Funds

Under this subsection, only Money Market Mutual Funds with stable, non-floating NAV (Net Asset Value, the value of assets divided by number of shares) are permitted

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Fund Limit: 5% of Money Market Mutual Fund's assets in the Portfolio
- Maximum Issue Limit: n/a
- Maximum Maturity: n/a
- Minimum Rating: AAAm by at least two Rating Agencies
- Other Restrictions: n/a

6. Certificates of Time Deposit

Code Section 53601.8 allows investments in deposits placed with a private sector entity that assists in the placement of deposits with eligible financial institutions located in the United States. Under this subsection, only such purchases are permitted.

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Negotiable Certificates of Deposit
- Maximum Issuer Limit: maximum FDIC insured (\$250,000 as of April 2017)
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed one (1) year from the settlement date
- Minimum Rating: AA- by at least one Rating Agency
- Other Restrictions:
 - o Investment in local branches within the District, whenever possible

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7. Negotiable Certificates of Deposit

- Maximum Share of Portfolio: 20% of the Portfolio when added together with Certificates of Time Deposits
- Maximum Issuer Limit: maximum FDIC insured (\$250,000 as of April 2017)
- Maximum Issue Limit: 10% of issue
- Maximum Maturity: Not to exceed five (5) years from the settlement date
- Minimum Rating: AA- by all Rating Agencies
- Other Restrictions: Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more.

8. Commercial Paper

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: 10% of outstanding amount for the issuer
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the settlement date
- Minimum Rating: A-1+ from at least one Rating Agency
- Other Restrictions: issued by an entity that is, at the time of purchase:
 - o organized and operating in the United States as a general corporation, with total assets exceeding \$500,000,000 and debt (other than commercial paper) rated A or better by at least one Rating Agency; or
 - o is organized within the United States as a special purpose corporation, trust, or limited liability company, with program wide credit enhancements including, but not limited to, overcollateralization, letters of credit, or a surety bond, <u>and</u> has commercial paper that is rated A-1+ by at least one Rating Agency

9. Medium Term Corporate Notes

- Maximum Share of Portfolio: 30% of the Portfolio
- Maximum Issuer Limit: 10% of the Portfolio
- Maximum Issue Limit: 5% of original issue amount
- Maximum Maturity: Not to exceed 5 years from the settlement date
- Minimum Rating: AA- from at least one Rating Agency, and not lower than A by any Rating Agency
- Other Restrictions: issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States.

10. Repurchase Agreements

- Maximum Share of Portfolio: 20% of the Portfolio
- Maximum Issuer Limit: n/a
- Maximum Issue Limit: n/a
- Maximum Maturity: Not to exceed 270 days from the settlement date
- Minimum Rating: n/a
- Other Restrictions:
 - o Collateral may only be in any securities authorized in items 1, or 2
 - o A Master Repurchase Agreement must be on file with the District
 - Security must be marked to market on a daily basis and delivered to the District's custodial bank at a market value of at least 102%

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11. Municipal Obligations

Under this subsection, only registered obligations of the following agencies are permitted:

- o Any local agency within the State of California
- the State of California
- Municipal Bonds:
 - Maximum Share of Portfolio: 40% of the Portfolio when added together with Municipal Notes
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue Limit: 10% of original issue amount
 - Maximum Maturity: Not to exceed five (5) years or with a put provision within five
 (5) years of settlement date
 - Minimum Rating: AA- or equivalent by at least one Rating Agency, and not lower than A by any Rating Agency
 - o Other Restrictions: none
- Municipal Notes:
 - Maximum Share of Portfolio: 40% of the Portfolio together with Municipal Bonds
 - o Maximum Issuer Limit: 20% of the Portfolio
 - o Maximum Issue limit: 10% of original issue amount
 - o Maximum Maturity: n/a
 - Minimum Rating: Notes maturing within 365 days must have a rating of SP-1+ from at least one Rating Agency
 - o Other Restrictions: none

Investment Placement

Investment placement shall be determined by, but not limited to, continual evaluation and projection of market conditions, interest rate trends, cash flow needs, economic data, yield curves, and interest rate forecasts. Additionally, for investments purchased or sold in the secondary market, best efforts will be made to obtain at least three quotations from Purchasing Entities (as defined below) or obtain timely and verifiable third-party market pricing data for the investment in question. The combination of these factors shall determine where, in what denomination, and for what maturity investments are made.

Selling Securities Prior To Maturity

When selling securities prior to maturity, principal losses are only allowable either:

- if the sale of securities is necessary to meet payment obligations,
- to comply with this policy, while considering the impact of the sale(s), or
- if the proposed sale is to be made in conjunction with a purchase and the proposed sale in combination with the subsequent purchase can enhance the Portfolio's yield.

Collateral

Securities placed with agents of depository shall at all times be maintained as specified in District Resolution 33232-01 in one or more trust companies, State or national banks located within California, the Federal Reserve Bank, or with any state or national bank located in any city designated as a federal reserve city by the Board of Governors of the Federal Reserve System, and to take from any such banks or trust companies receipts for securities so deposited. Requests for Collateral substitution and releases are subject to the Treasurer's written approval.

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Purchasing Entities

Investments will be purchased from either:

- Primary Dealers as designated by the Federal Reserve Bank of New York,
- National or California State Chartered Banks,
- Federal or California Chartered Savings Institution,
- Broker-Dealers registered with the State of California, or
- Issuers of securities eligible for purchase by the District.

In addition, these institutions must:

- be registered by the Securities and Exchange Commission (SEC),
- be members in good standing of the Financial Industry Regulatory Authority (FINRA).

The District shall maintain a current eligible list of established dealers, brokers, banks and savings and loan associations with which securities trading and placement of funds are authorized.

Additionally, to be placed on the eligible list, individuals need to certify in writing that they have read, understood, and agree to comply with this policy, where applicable, by completing and filing with the District the 'Certification of Compliance with Investment Policy' included in this policy as Exhibit 2.

Eligibility may be revoked at any time, in the District's sole discretion, for any reason, including but not limited to, failure to meet the above requirements.

Trade Confirmations and Settlements

To ensure a high degree of internal control, the District shall comply with the following:

- All Securities purchased from dealers and brokers shall be held in safekeeping by the
 District's custodial bank, a national bank, a State chartered bank or trust company,
 established for this purpose as someone other than the selling party of the security.
 Securities purchased will be covered by a trust or safekeeping receipt in a manner that
 establishes the District's ownership. All transactions require delivery of the security prior to
 payment for the security (delivery vs. payment).
- All trade confirmations shall be received directly and reviewed for conformity to the original transaction by an individual other than the person originating the transaction. Any discrepancies will be brought to the attention of the Treasurer.

Review And Reporting Requirements

On a monthly basis, in accordance with Section 53607 of the Code, the Treasurer shall prepare and submit a report to the General Manager and the Board of Directors listing investment transactions.

On a quarterly basis, in accordance with Section 53646 of the Code, the Treasurer may prepare and submit a report to the General Manager and the Board of Directors which shall include the type of investment, issuer, date of maturity, par and dollar amount invested on all securities, investments and moneys held by the District, and provide an investment summary by security type, percent of the portfolio, investment yield and the remaining period of investment to maturity.

On an annual basis, in accordance with Section 53646 of the Code, an investment policy may be presented to the Board for consideration at a public meeting. In conjunction with the investment policy consideration, the Board shall also annually review the delegation of its authority for the management of investments to the Treasurer.

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Performance Review And Internal Control

Office of Internal Audit

The Office of Internal Audit will periodically audit the investment portfolio to evaluate the effectiveness of the District's investment program as well as its compliance with the Investment Policy. These audits will supplement the annual review by the District's external auditors.

Finance Department

The Treasurer will review the investment portfolio monthly for compliance with the Investment Policy and make recommendations for changes and improvements where warranted.

Authority

Resolution No. 33019-96 on December 10, 1996

Amended by Resolution No. 33134-99 on January 26, 1999

Amended by Resolution No. 33232-01 on January 9, 2001

Amended by Resolution 33287-02 on January 22, 2002

Amended by Resolution 33350-03 on February 25, 2003

Amended by Resolution 33390-04 on January 27, 2004

Amended by Resolution 33464-05 on February 22, 2005

Amended by Resolution 33516-06 on January 24, 2006

Amended by Resolution 33585-07 on March 13, 2007

Approved by Resolution 33658-08, February 26, 2008

Approved by Resolution 33702-09, February 24, 2009

Approved by Resolution 33752-10, January 26,2010

Approved by Resolution 33792-10, November 23, 2010

Approved by Resolution 33871-12, April 24, 2012

Approved by Resolution 33920-13, March 26, 2013

Reaffirmed by Motion 056-14, March 25, 2014

Approved by Resolution 34027-15, April 28, 2015

Approved by Resolution 34079-16, April 26, 2016

Approved by Resolution XXXXX-17, April 25, 2017

EXHIBIT 1 RATING AGENCIES' SCALES

For purposes of Investment Policy 4.07 the term "Rating Agencies" is defined as: Standard & Poor's Financial Services (S&P), Moody's Investors Service (Moody's), and Fitch Ratings (Fitch).

Ratings requirements are provided using the S&P scale and should be read as "or equivalent" to other Rating Agencies scales. The equivalencies are provided in the tables below.

EXAMPLE

Investment Option 6, Certificates of Time Deposits, shows:

"Minimum Rating: AA- by at least one Rating Agency"

This requirement should be read as:

"Minimum Rating: AA- or equivalent by at least one Rating Agency."

To determine the equivalent rating in the table below, find the AA- rating under the S&P column and read across the row to find the Moody's equivalent rating of Aa3 and the Fitch equivalent rating of AA-. Accordingly, a Certificate of Time Deposit is equivalent as an investment if it is rated AA- by S&P, Aa3 by Moody's, or AA- by Fitch.

INVESTMENT-GRADE RATING SCALES

L	ONG-TERM D	EBT	
S&P	MOODY'S	FITCH	
AAA	Aaa	AAA	
AA+	Aa1	AA+	
AA	Aa2	AA	
AA-	Aa3	AA-	←Minimum rating required for district investments
. P.W @ .	4 . D. B Mar G A	· * * * 1750 £ 1000 \$	
A+	A1	A+	
Α	A2	Α	
A-	A3	A-	
BBB+	Baa1	BBB+	
BBB	Baa2	BBB	

SHORT-TERM DEBT		EBT	
S&P	MOODY'S	FITCH	
A-1+	P-1	F1+	←Minimum rating required for district investments
B G 2	3 4 6 6 6 4 4 4	, e:	The state of the s
A-1	-	F1	
A-2	P-2	F2	
A-3	P-3	F3	

	FUNDS		
S&P	MOODY'S	FITCH	
AAAm	Aaa-mf	AAAf	←Minimum rating required for district investments
AAm	Aa-mf	AAf	
Am	A-mf	Af	
BBBm	Baa-mf	BBBf	

EXHIBIT 2

East Bay Municipal Utility District Certification of Compliance with Investment Policy

The East Bay Municipal Utility District (the District), under Policy 4.07 (the Investment Policy), requires that securities trading and placement of funds be conducted only with eligible Purchasing Entities. The Investment Policy also specifies that the District must obtain written certification that eligible Purchasing Entities have read, understood, and agree to comply with the Investment Policy, where applicable. This certification is necessary to be included on an approved list of Purchasing Entities that are eligible to conduct investment transactions with the District. The District has no obligation to enter into securities trading and/or placement of funds transactions with any or all Purchasing Entities on the list. The District retains the sole and exclusive discretion to determine with which of the Purchasing Entities, if any, to engage in individual investment transactions. Eligibility may be revoked at any time, at the District's sole discretion, for any reason, including but not limited to, failure to meet the requirements of the policy and this exhibit.

Please complete the sections below, sign and return this completed form if you wish to be considered for inclusion on the approved list of Purchasing Entities eligible to conduct investment transactions with the District.

Please send completed form:

electronically, to: via mail, to: <u>and</u> Damien Charléty damien.charlety@ebmud.com East Bay Municipal Utility District 375 11th Street, MS809 Oakland, CA 94607 A. Entity Name B. My entity is a: (choose all that apply, at least one must be checked for eligibility) Primary Dealer as designated by the Federal Reserve Bank of New York National or California State Chartered Bank Federal or California Chartered Savings Institution Broker-Dealer registered with the State of California AND I certify that my entity is: (both must be checked for eligibility) registered by the Securities and Exchange Commission (SEC) a member in good standing of the Financial Industry Regulatory Authority (FINRA) C. My entity is an: Issuer of securities eligible for purchase by the District **D.** My entity: participates in the District's Contract Equity Program I certify that I have read, understood, and agree to comply where applicable with the District's Investment Policy. Print Name Sign Name Title Date



AGENDA NO.
MEETING DATE

11. April 25, 2017

TITLE	REVISIONS TO DISTRICT POLICY 4.02
□ MOTION	N ©RESOLUTION DORDINANCE

RECOMMENDED ACTION

Approve revisions to District Policy 4.02 – Cash Reserves and Debt Management.

SUMMARY

District Policy 4.02 – Cash Reserves and Debt Management outlines the District's management of operating and self-insurance reserves. Policy changes are proposed to ensure compliance with a newly adopted state law (SB 1029). The policy was reviewed with the Finance/Administration Committee on April 25, 2017.

DISCUSSION

Government Code section 8855(i) requires issuers of public debt to report to the California Debt and Investment Advisory Commission on any upcoming proposed issuance of debt. The newly adopted SB 1029 requires this report to include a certification that the issuer has adopted debt policies regarding the use of debt and that the proposed debt issuance is consistent with its policies. Further, SB 1029 requires issuers' policies include:

- The purposes for which the debt proceeds may be used.
- The types of debt that may be issued.
- The relationship of the debt to, and integration with, the issuer's capital improvement program or budget, if applicable.
- Policy goals related to the issuer's planning goals and objectives.
- The internal control procedures that the issuer has implemented, or will implement, to ensure that the proceeds of the proposed debt issuance will be directed to the intended use.

In order to meet these requirements, staff has proposed to modify the existing policy to: outline the types of financial instruments that may be used; describe the circumstances under which financing can be obtained; describe the conditions under which funds can be held; and specify the requirement to comply with applicable laws and regulations.

Funds Available: FY	Budget Code:	
DEPARTMENT SUBMITTING Finance Department	DEPARTMENT MANAGER or DIRECTOR Barry N. Gardin	APPROVED Muemfe R. Comb General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

Revisions to District Policy 4.02 April 25, 2017 Page 2

District staff, bond counsel, and the District's financial advisor reviewed the policy and made the necessary modifications to ensure it complies with the new law and is consistent with best practices as established through review of peer agencies' debt policies.

SUSTAINABILITY

Economic

Policy 4.02 promotes the economic sustainability of the District by enabling staff to take advantage of the most cost effective and secure financing instruments available.

ALTERNATIVE

<u>Do not update this policy</u>. This alternative is not recommended because it would leave a policy in place that does not reflect current operating practices, is not consistent with Board directives, and does not address changes in state law.

Attachments

I:\Sec\2017 Board Related Items\032817 Board Agenda Items\FIN\Revisions to District Policy4.02.doc



Policy 4.02

EFFECTIVE

25 APR 17 25 OCT 16

SUPERSEDES

22 SEP 15 25 OCT 16

CASH RESERVES AND DEBT MANAGEMENT

IT IS THE POLICY OF EAST BAY MUNICIPAL UTILITY DISTRICT TO:

Maintain operating and self-insurance reserves necessary to provide ongoing working capital while maintaining a reasonable balance between debt and current revenue financing of capital projects. Maintaining adequate reserves along with sound financial policies promotes the District's good standing in the capital markets; provides financing flexibility; avoids potential restrictive debt covenants; maintains markets for District debt; and facilitates future financing of capital projects at reasonable costs.

Maintaining a reasonably conservative ratio between current funding sources and debt financing is critical to retaining the District's financing flexibility. Flexibility allows the District access to use a variety of revenue or debt-financing alternatives, including issuing such as low cost-fixed and variable rate obligations and as well as other revenue supported types of debt such as State and Federal loans, direct bank loans, and other financial instruments which may be utilized by the District. Similarly, District financings may include taxable as well as tax-exempt alternatives. In addition to financing capital improvements, debt can be issued to refund outstanding obligations in order to achieve debt service savings or to further any other financial objectives authorized by the District Board. The District's debt should primarily be secured by its revenues, but may be secured by other sources such as, for example, voter-approved general obligation bonds secured by property taxes. The District's debt obligations may be short, medium, or long-term as appropriate to achieve results consistent with the District's financial goals and taking into account the useful life of the assets financed. Proceeds of debt should be held either (a) by a third-party trustee, which will disburse bond proceeds to the District upon submission of one or more written requisitions signed by an authorized District officer, or (b) by the District, to be held and accounted for in a separate fund or account, the expenditure of which will be carefully documented by the District and subject to established internal controls consistent with the District's applicable policies and procedures. When issuing debt, the District will comply with all applicable requirements pertaining to initial bond disclosure, continuing disclosure, tax-exemption, post-issuance compliance, and investment of bond proceeds (including, for example, any continuing disclosure undertakings under SEC Rule 15c2-12, and tax covenants and related federal tax compliance requirements such as arbitrage restrictions and rebate requirements). Issuance of all debt should conform to the District's overriding principle of exercising responsible financial management.

Financial Goals

- Maintain operating reserves at a level sufficient to meet working capital and unanticipated needs, specifically:
 - Maintain Working Capital Reserve of at least 3.0 times monthly net operating and maintenance expenses.
 - Maintain Self-Insured Liability Program Reserve 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.
 - Maintain Workers' Compensation Program Reserve 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.

4.02

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- Maintain Rate Stabilization Reserve for the Water System at a minimum of 20 percent of projected annual water volume revenues and for the Wastewater System at a minimum of 5 percent of operating and maintenance expenses.
- Maintain a reasonably conservative ratio between current funding sources and debt financing:
 - <u>Debt Service Coverage Ratio</u>: Maintain an annual revenue bond debt service coverage ratio of at least 1.6 times.
 - <u>Debt-Funded Capital Spending</u>: Limit debt-funded capital to no more than 65 percent of the total capital program over each five-year planning period.
 - Commercial Paper/Variable Rate Debt: Maintain an annual limit of 25 percent of outstanding long-term debt.

Authority

Motion No. 058-94, April 12, 1994

As amended by Resolution No. 33211-00, June 27, 2000

As amended by Resolution No. 33429-04, June 8, 2004

As amended by Resolution No. 33481-05, June 14, 2005

As amended by Resolution No. 33485-05, July 12, 2005

As amended by Resolution No. 34052-15, September 22, 2015

As amended by Resolution No. 35008-16, October 25, 2016

As amended by Resolution No. XXXXX-17, April 25, 2017



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Cash Reserves and Debt Management

NUMBER

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As amended by Resolution No. 35008-16, October 25, 2016

As amended by Resolution No. XXXXX-17, April 25, 2017

Draft Prepared

	Office of General Counsel
RESOLUTION NO	Office of delicital establish

ADOPTING REVISED POLICY NUMBER 4.02, CASH RESERVES AND DEBT MANAGEMENT

Introduced by Director	; Seconded by Director
WHEREAS, it is the desire and intention of the Utility District to update and revise Policy Num Management;"	
	ne Board of Directors of the East Bay Municipal, a copy of which is attached hereto as Exhibit A,
ADOPTED this 25th day of April, 2017 by the	following vote:
AYES:	
NOES:	
ABSENT:	
ABSTAIN:	
	Presiden
ATTEST:	
Secreta	ry
APPROVED AS TO FORM AND PROCEDUR	RE:
General Couns	sel



Policy 4.02

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CASH RESERVES AND DEBT MANAGEMENT

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As amended by Resolution No. XXXXX-17, April 25, 2017

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE:

April 20, 2017

MEMO TO:

Board of Directors

FROM:

Alexander R. Coate, General Manager And

SUBJECT:

Legislative Report No. 06-17

The following issues are being referred to the Board of Directors for action, as appropriate.

RECOMMENDED ACTION

Approve positions on the following bills: 1) AB 746 (Gonzalez-Fletcher) Public health: potable water: lead testing: school sites and campuses; 2) AB 1000 (Friedman) Water conservation: certification; 3) AB 1587 (Levine) Invasive species: dreissenid mussels; 4) ACA 4 (Aguiar-Curry) Local government financing: affordable housing and public infrastructure: voter approval; and receive information on AB 975 (Friedman) Natural resources: wild and scenic rivers.

STATE LEGISLATION

RECOMMENDED POSITION

AB 746 PU

AB 746 PUBLIC HEALTH: POTABLE WATER: (Gonzalez-Fletcher) LEAD TESTING: SCHOOLSITES AND

SUPPORT IF AMENDED

CAMPUSES

Existing law generally requires a school district to provide access to free, fresh drinking water during meal times in school food service areas. Under existing law, known as the Lead-Safe Schools Protection Act (Act), the California Department of Public Health is required to perform various activities related to reducing the risk of exposure to lead hazards in public schools, including working with the California Department of Education, to develop voluntary guidelines to ensure that lead hazards are minimized in the course of school repair and maintenance programs. The Act also forbids the use of lead-based paint, lead plumbing and solders, or other potential sources of lead contamination in constructing, modernizing, or renovating schools.

AB 746 (Gonzalez Fletcher), as amended on April 18, 2017, is similar to AB 885 (Rubio), which the Board adopted a "support if amended" position on at the April 11, 2017 Board meeting. AB 746 is co-authored by Assembly Member Rubio and is intended to protect students from exposure to lead in drinking water at schools and state colleges. AB 746 would primarily do five things: 1) require local education agencies, community colleges, and California State Universities (CSUs) to annually test for lead in the potable water system at every school site and campus with a building constructed before 1986; 2) require local education agencies, community colleges, and CSUs to test for lead once every three years at school sites and campuses with buildings built after January 1, 1986; 3) require notification to parents or students if tests reveal that there is a lead level greater

than the U.S. Environmental Protection Agency's (U.S. EPA) drinking water standard for lead and provide information on how to obtain blood testing; 4) require local education agencies, community colleges, and CSU's to shut down any part of a school or campuses potable water system that has a lead level above the U.S. EPA drinking water standard for lead; and 5) establish a new action level for lead of 5 parts per billion (ppb) by statute.

Under AB 746, if any test at a school site or college campus in a given year reveals a lead level greater than 5 ppb, which is California's Detection Limit for Reporting, every potable water system at the school site or campus must be tested that year. For these purposes, potable water system means "the water fountains and faucets used for drinking and preparing food." Local education agencies and colleges may contract with a third party to conduct the testing or seek the assistance of a local health agency, a water system, or the State Water Resources Control Board (SWRCB), and the testing must be done in accordance with the SWRCB's protocol for "testing water."

In 2016, Governor Brown directed the SWRCB to work with school districts and public water systems on "water quality testing" in schools. Subsequently, the SWRCB issued revised domestic water supply permits to require each water system to test the drinking water for lead at any K-12 school in its service area that provides a written request. For the purposes of this requirement, a community water system is defined as a public water system with at least 15 service connections. This includes EBMUD. Under the SWRCB initiative, schools have until November 1, 2019 to make a one-time request for testing. To date, EBMUD has been contacted by four school districts and is developing plans to conduct testing in response to these requests and any future requests.

AB 746 builds on the SWRCB initiative that allows schools to request one-time testing from local water agencies, by making local educational agencies responsible for annual testing, though local educational agencies may seek assistance from water systems, and is consistent with the SWRCB's sampling approach that uses the U.S. EPA action level and current regulatory standard. The intent of AB 746, to help protect children and college students from lead exposure, is consistent with EBMUD's efforts to reduce lead exposure in drinking water, including EBMUD's sponsorship of prior legislation. However, as drafted AB 746 raises two primary issues that should be addressed.

First, the bill requires that water fountains and faucets used for drinking and preparing food be shut down if a school site or campus has a lead level above the U.S. EPA standard for lead. However, there is no requirement for what must be done prior to the water fountains or faucets being used again.

AB 746 should be amended to ensure there is remediation of any water fountains or faucets used for drinking and preparing of food before the fixtures are placed into operation again.

Second, AB 746 bypasses the regulatory process by setting a new action level for lead of 5 ppb. AB 746 would require that if a test reveals a school site or college campus has a lead level greater than 5 ppb that every water fountain or faucet used for drinking and preparing food must be tested. The current action level of 15 ppb was established by the U.S. EPA and is implemented by the SWRCB. The proposed 5 ppb action has not been developed through an established regulatory process.

AB 746 should be amended to reflect the current regulatory standard of 15 ppb. As an alternative, if the author wishes to amend the current regulatory standard, AB 746 could be amended to direct the SWRCB to re-evaluate the current standard.

EBMUD has historically supported measures to protect the public health by reducing exposure to lead in drinking water. At the April 11, 2017 Board meeting the Board adopted a "support if amended" position on AB 885 which would require testing for lead in drinking water at schools. AB 885 is pending in the legislature. In 2016, EBMUD supported SB 1398 (Leyva) to facilitate the identification and replacement of lead pipes in water systems. SB 1398 was signed into law (Chapter 731 of 2016). In 2006, EBMUD sponsored California's landmark "Get The Lead Out" legislation, AB 1953 (Chan), that was signed into law (Chapter 853 of 2006), and which reduced the allowable lead content drinking water plumbing.

The list of support and opposition to AB 746 is shown below.

Support
California League of Conservation Voters
CALPIRG
Consumer Attorneys of California
Environment California
Environmental Justice Coalition for Water
Food and Water Watch

Opposition
None listed

AB 1000 WATER CONSERVATION: SUPPORT (Friedman) CERTIFICATION

Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission) to establish design and construction standards, and energy and water conservation design standards that increase efficiency in the use of energy and water for new residential and new nonresidential buildings to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy. Existing law requires the Energy Commission to establish minimum levels of operating efficiency to promote the use of energy and water efficient appliances. AB 1000 (Friedman), as introduced on February 16, 2017, would require the Energy Commission to certify innovative water conservation and water loss detection and control technologies that meet both of the following criteria: 1) the technology increases the energy efficiency of the system affected, and 2) the technology is cost effective.

SB 555 (Wolk), passed by the legislature and signed into law in 2015 (Chapter 679), requires each urban retail water supplier to submit annual water loss audits to the Department of Water Resources (DWR) beginning October 1, 2017. DWR is currently developing the regulations for water loss audit standards to implement SB 555.

In May 2016, Governor Brown issued Executive Order B-37-16 entitled "Making Water Conservation a California Way of Life." The executive order built on SB 555 by calling on the Energy Commission to certify innovative water conservation and water loss detection and control technologies that also increase energy efficiency. According to the author's office, the executive order did not specify what certification of innovative water conservation and water loss detection and control technologies meant. AB 1000 is intended to facilitate implementation of the portion of the executive order pertaining to this certification by defining what certification means, including criteria that must be met in order to achieve the certification.

EBMUD currently has a protocol for identifying and assessing water loss, and EBMUD staff is participating in both DWR's process for developing water loss audit standard regulations and the Energy Commission's process of evaluating water loss detection and control technologies to ensure EBMUD's processes are aligned.

AB 1000 could help agencies, including EBMUD, by advancing the innovation and market adoption of new water loss detection technologies that assist water utilities to reduce water losses thereby reducing operating expenses and increasing water supply reliability. However, it will be important to monitor the implementation and to ensure the regulatory process is robust, objective, includes defined criteria, and no additional requirements are placed on water utilities.

EBMUD has previously supported legislation to promote urban water conservation and address distribution system water loss. In 2014, EBMUD supported SB 1420 (Wolk) which required urban water supplies to report on distribution system water loss in their Urban Water Management Plans. SB 1420 was signed into law (Chapter 490). In 2009, EBMUD supported AB 1465 (Hill) to simplify water conservation reporting requirements for California Urban Water Conservation Council (CUWCC) members complying with CUWCC Best Management Practices. AB 1465 was signed into law (Chapter 534).

An official support/opposition list for AB 1000 is not yet available

AB 1587 INVASIVE SPECIES: (Levine) DREISSENID MUSSELS

SUPPORT

Existing law authorizes the Department of Fish and Wildlife (DFW) to address the control and eradication of zebra and quagga mussels, also known as dreissenid mussels, from infested water bodies in California. DFW has the authority to inspect, quarantine, and take other necessary actions to prevent the spread of these mussels, including closing a water body for no less than seven days if dreissenid mussels are found in that water body, though such closure is not required. Owners or operators of infested water supply facilities are required to develop and implement a control and eradication plan.

In addition, and as a result of the enactment of EBMUD-sponsored AB 2065 (Hancock), owners and operators of recreational reservoirs that are <u>not</u> infested with dreissenid mussels are required to implement a prevention program. Current law also requires the owner of a vessel to register the

implement a prevention program. Current law also requires the owner of a vessel to register the vessel with the Department of Boating and Waterways, pay a registration fee, and pay an additional quagga and zebra mussel infestation prevention fee that is used to fund grants to entities that own or manage reservoirs to help pay for dreissenid mussel prevention and inspection programs.

AB 1587 (Levine), as amended on March 28, 2017, would build on existing law by doing three things: 1) require, rather than allow, a water body where dreissenid mussels are detected be closed for at least seven days; 2) require entities that own or operate a water body where dreissenid mussels have been detected to implement a dreissenid mussel control program to prevent the spread of the dreissenid mussels; and 3) make owners and operators of an infested water body eligible for grants to help pay for a dreissenid mussel control program.

Dreissenid mussels originated in the Ukraine and Black and Caspian Sea drainages and first appeared in North America in the 1980s as a result of transatlantic cargo ship traffic in the Great Lakes region. The first detection west of the Continental Divide was made in January 2007, when quagga mussels were found in Lake Mead. Quagga mussels were subsequently discovered in the Colorado River and Aqueduct, and in at least ten reservoirs in Nevada, Arizona, and Southern California, prompting emergency actions by impacted water utilities. In December 2016, quagga mussels were discovered in Castaic Lake and in February 2017, quagga mussels were found in the Santa Ana Pipeline. Dreissenid mussels affect water-related infrastructure, and to date, no reliable method of eradication has been identified, and once a body of water is infested it is extremely costly to control the infestation.

Dreissenid mussels spread in water by clinging to the outer surfaces of boats and other aquatic equipment or by the microscopic mussel larva, known as veligers, drifting or otherwise entering into water bodies. This can include being transported in water tanks or bilges of vessels. According to DFW, "the most likely mechanism for transfer between non-contiguous water bodies in the U.S. is through contaminated boats."

EBMUD has had an aggressive prevention and monitoring program for its water system in place since 2008. The prevention program, in place at all six reservoirs on which recreational boating is allowed, includes a vessel history survey and is usually accompanied by a physical inspection. In addition, a new boat decontamination station has been added at Camanche Reservoir allowing boat owners to pay for a high pressure hot-water scrub to ensure that boats that may have been exposed to quagga or zebra mussels do not have quagga or zebra mussels on them when they enter EBMUD reservoirs. Boats which fail either the survey or inspection may not be launched into EBMUD reservoirs unless they complete this decontamination process. To date, neither quagga nor zebra mussels have been found within EBMUD's water system.

Because much of California's water supply system is interconnected either directly or through recreational vessel use, no single water supply agency can stop the spread of dreissenid mussels by itself. AB 1587 would help prevent the spread of dreissenid mussels once they have been discovered in a water body by requiring owners and operators of infected water bodies to take steps to ensure that outbreaks are contained and do not result in the spread of these invasive mussels to other waterways.

EBMUD has previously sponsored and supported legislation to address the threat of dreissenid mussels. In 2016, EBMUD supported AB 2549 which extended a sunset date in current law to allow DFW to continue efforts to prevent the spread of dreissenid mussels. AB 2549 was signed into law (Chapter 201). In 2012, EBMUD supported AB 2443 (Williams) which established a statewide funding mechanism to support dreissenid mussel prevention and eradication efforts. AB 2443 was signed into law (Chapter 485 of 2012). EBMUD sponsored AB 2065 (Hancock) in 2008, which required the owners and operators of recreational reservoirs that are <u>not</u> infested with dreissenid mussels to implement a mussel prevention program. AB 2065 was signed into law (Chapter 667).

An official support/opposition list for AB 1587 is not yet available

ACA 4 LOCAL GOVERNMENT FINANCING: SUPPORT

(Aguiar-Curry) AFFORDABLE HOUSING AND PUBLIC INFRASTRUCTURE: VOTER APPROVAL

The California Constitution generally prohibits the ad valorem tax rate on real property from exceeding one percent of the value of the property but provides exceptions for specified school entities. In addition, the California Constitution permits the imposition of a special tax by a city, county, or special district upon the approval of two-thirds of the voters in the affected area. Certain school entities though have the authority to levy an ad valorem property tax for specified purposes with the approval of 55 percent of the vote within the affected jurisdiction. The California Constitution also prohibits a county, city, town, township, board of education, or school district from incurring any indebtedness in one year that exceeds the income and revenue provided in that same year unless it is approved by a two-thirds vote and is subject to other conditions. ACA 4 (Aguiar-Curry), as introduced on February 17, 2017, is a constitutional amendment that, subject to voter approval, would do three things. First, similar to the existing exception for certain school entities, ACA 4 would create an additional exception to the one-percent limit on the property tax rate for taxes imposed by cities and counties to service bonded indebtedness. Under ACA 4, this new exception would apply only if: 1) the indebtedness is approved by 55 percent of the vote; 2) the indebtedness is incurred to fund the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, or the acquisition or lease of property for public infrastructure or affordable housing; and 3) the voter-approved proposition imposing the tax includes specified accountability requirements.

Second, ACA 4 would change the two-thirds voter approval requirement for special taxes to, instead, authorize a city, county, or special district to impose, extend, or increase a special tax with the approval of 55 percent of its voters voting on the tax if the tax is for funding "the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, or the acquisition or lease of real property for public infrastructure or affordable housing." Public infrastructure, as defined by ACA 4, includes water and wastewater treatment projects.

Finally, ACA 4 would lower to 55 percent the voter approval threshold for a city, county, city and county, school districts, community college districts, or county offices of education to incur bonded indebtedness in one year that exceeds the income and revenue provided in that same year, if the

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bonded indebtedness is in the form of general obligation bonds to fund specified projects. This limit does not apply to special districts and thus would not impact EBMUD.

Special taxes are a form of parcel tax based on characteristics of the parcel, not the property value. Special districts use revenues from both special taxes and local property taxes to fund public improvements and vital public services. For example, in November 2012, voters in the Santa Clara Valley Water District approved Measure B to renew an existing special parcel tax for 15 years in order to fund specified projects within the district, such as those to reduce pollution in waterways or to provide flood protection. Passage of Measure B required approval of two-thirds of the voters.

ACA 4's special tax provisions, to lower the voter threshold to 55 percent for public infrastructure, including water and wastewater treatment projects, would apply to special districts, including EBMUD. Thus, in its current form, ACA 4 would benefit EBMUD by enabling it, if it so chooses in the future, to gain voter approval of special taxes by the lower voter threshold of 55 percent, rather than the now required two-thirds vote. This would provide a more viable avenue for EBMUD to obtain revenue than currently exists.

EBMUD has supported similar measures to lower the vote threshold for approval of bonded indebtedness and special taxes. In 2016, the Board adopted a "support" position on ACA 8 (Bloom) to create a new exemption to the one percent limit on the property tax rate for bonded indebtedness to fund water and wastewater-related infrastructure and lower the voter threshold for special taxes to fund water and wastewater-related infrastructure. ACA 8 failed to advance out of the legislature. In 2015, EBMUD supported SCA 5 (Hancock) to lower the vote threshold for approval of special taxes to 55 percent. Subsequent to the Board adopting a position, SCA 5 was amended to address commercial and industrial property taxation. EBMUD did not have a position on the amended version of SCA 5. In 2013, the Board adopted a "support" position on SCA 11 (Hancock) to lower the vote threshold for approval of special taxes to 55 percent. SCA 11 failed to advance out of the legislature.

An official support/opposition list for ACA 4 is not yet available

AB 975 NATURAL RESOURCES: WILD AND INFORMATION (Friedman) SCENIC RIVERS

The California Wild and Scenic Rivers Act (State Act) establishes the policy that certain rivers possessing extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people. The State Act defines "immediate environments" as the land located immediately adjacent to the segments of the river.

AB 975 (Friedman), as amended on March 23, 2017, would add "historical, cultural, geological, ecological, hydrological, botanical, or other similar values" to the values that certain rivers possess and should be preserved. AB 975 would also expand the protected area of land from the land immediately adjacent to the designated stretch of river to a one-quarter mile corridor along the river.

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AB 975 is generally intended to align the State Act to more closely follow the 1968 Federal National Wild and Scenic Rivers Act (Federal Act). The State and Federal Acts share similar criteria with regard to the purpose of protecting rivers, the identification of free flowing rivers, establishing a study process, and identical classification system. However, the State Act differs from the Federal Act in two key ways: 1) values and; 2) area of affected land.

The State and Federal Acts share four common values – scenic, recreational, fishery, and wildlife. However, the Federal Act recognizes the four additional values of historical, cultural, geologic, and "other similar values." According to the Assembly Committee on Natural Resources analysis, federal agencies have also interpreted the term "other similar values" to include three interpreted values – ecological, botanical, and hydrological.

AB 975 would increase the number of values cited in the State Act from four to eleven by adding the four additional Federal Act values and the three interpreted values. By expanding the pool of State Act values from four to eleven, AB 975 could qualify more rivers for potential future designation due to the increase in qualifying criteria.

With regard to land, the State Act defines the "immediate environments" of the river as the land immediately adjacent to the river, and defines "river" to include up to the first line of permanently established riparian vegetation. The Federal Act encompasses a larger corridor of one-quarter mile of land adjacent to the designated segments of the river.

AB 975 proposes to comport the State Act with the Federal Act by redefining "immediate environments" to include the corridor of land within one-quarter mile of the designated segments of river. This change would have the likely effect of directing state and local governments to act in a manner that protects the one-quarter mile corridor of land adjacent to a designated river.

California has a varied system for managing its "wild and scenic" designated rivers due to the differences in designations. In California, there are 23 rivers with Federal Act designations and 15 rivers with State Act designations. Five of these rivers have dual designations. By more closely aligning the State Act with the Federal Act, AB 975 would provide more consistent management for all of the designated rivers in California, regardless of whether the river enjoys a State Act, Federal Act, or dual designation. AB 975 is broadly drafted and may apply both prospectively and retroactively, potentially affecting the management of the 11 State Act-only designated rivers due to the expansion in the amount of land subject to protection.

With regard to studies, AB 975 would affect studies that are in process to determine the suitability of a river for designation under the State Act. At this time the Mokelumne River is the only river in this category. The study process for the Mokelumne River has been initiated by the California Natural Resources Agency (Resources Agency), in accordance with 2015's AB 142 (Bigelow). The report and recommendations are due to the legislature by December 31, 2017, and the study is required to be conducted in accordance with the same law AB 975 proposes to change. If AB 975 successfully advances out of the legislature and is signed by the Governor this year, it would take effect one day after the required completion date for the Mokelumne River study. In order to ensure the Mokelumne River study is not deemed inadequate immediately upon its completion,

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amendments to AB 975 may be needed. Staff will work with the Resources Agency and legislative staff to identify any necessary amendments to ensure the relevance of the Mokelumne River study relative to the changes proposed by AB 975.

AB 975 is scheduled for discussion at the April 28th Upper Mokelumne River Watershed Authority meeting. Consistent with past practice, staff will gather information on the local perspective and bring AB 975 back to the Board for consideration at the May 9th Board meeting.

EBMUD supported the final version of AB 142 (Bigelow) which was signed into law in 2015 (Chapter 661). AB 142 requires a study on the suitability of including segments of the Mokelumne River in California's Wild and Scenic Rivers system and provides interim river protections.

The list of support and opposition to AB 975 is shown below.

Support

American Rivers

American Whitewater

Butte Environmental Council

California Water Impact Network

California Sportfishing Protection Alliance

California Outdoors

California Wilderness Coalition

CalTrout

Coast Action Group

Defenders of Wildlife

Foothill Conservancy

Friends of the Eel River

Friends of the River

KIER Associates

Merced River Conservation Committee

Natural Resources Defense Council

Northcoast Environmental Defense Council

Northern California Council International Federation of Fly Fishers

North Fork American River Alliance

Pacific Coast Federation of Fisherman's Associations

Sacramento River Preservation Trust

Safe Alternatives for Our Forest Environment

Sierra Club California

South Yuba River Citizens League

Two individuals

Opposition

None listed

ARC:MD:JW

AMENDED IN ASSEMBLY APRIL 18, 2017 AMENDED IN ASSEMBLY MARCH 30, 2017

CALIFORNIA LEGISLATURE—2017–18 REGULAR SESSION

ASSEMBLY BILL

No. 746

Introduced by Assembly Members Gonzalez Fletcher, McCarty, and Rubio

February 15, 2017

An act to add Section 116277 to the Health and Safety Code, relating to public health.

LEGISLATIVE COUNSEL'S DIGEST

AB 746, as amended, Gonzalez Fletcher. Public health: potable water: lead testing: schoolsites and campuses.

Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health, including, but not limited to, conducting research, studies, and demonstration programs relating to the provision of a dependable, safe supply of drinking water, enforcing the federal Safe Drinking Water Act, adoption of implementing regulations, and conducting studies and investigations to assess the quality of water in private domestic water supplies. The act requires the state board to establish a grant program, in consultation with the State Department of Education, to award grants to local educational agencies for the purposes of improving access to, and the quality of, drinking water in public schools serving kindergarten or any of grades 1 to 12, inclusive, and preschools and child day care facilities located on public school property.

 $AB 746 \qquad \qquad -2 -$

This bill would require a local educational agency, the Board of Governors of the California Community Colleges, and the Trustees of the California State-University, at least once a year, University to test for lead in the potable water system at every-schoolsite, including preschool locations, schoolsite or campus within their respective jurisdictions. jurisdictions at least once a year or once every 3 years, depending on whether a building was constructed before or after January 1, 1986. The bill would require, if a test reveals that a schoolsite's or campus' lead level is greater than the United States Environmental Protection Agency drinking water standards for lead, as those standards existed on January 1, 2017, the local educational agency to notify parents and guardians, and the board of governors and the trustees to notify students, of the elevated level and provide information on how to obtain physician testing for any pupil or student who may be affected. The bill would require a local educational agency, the board of governors, and the trustees to make inoperable and shut down from use any part of a schoolsite or campus potable water system that has an elevated lead level. By imposing additional duties on local educational agencies and community college districts, the bill would impose a state-mandated local program. The bill would encourage the Regents of the University of California to adopt an appropriate resolution to implement these provisions for the University of California.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

- SECTION 1. Section 116277 is added to the Health and Safety Code, to read:
- 3 116277. (a) (1) At least once a year, a local educational agency
- 4 shall test for lead in the potable water system at every-schoolsite,
- 5 schoolsite with a building constructed before January 1, 1986,

3 AB 746

including preschool locations, within the jurisdiction of the local educational agency.

(2) At least once every three years, a local educational agency shall test for lead in the potable water system at every schoolsite with a building constructed on or after January 1, 1986, including preschool locations, within the jurisdiction of the local educational agency.

(2)

(3) If a test reveals that a schoolsite's lead level is greater than the United States Environmental Protection Agency drinking water standards for lead, as those standards existed on January 1, 2017, the local educational agency shall notify, within seven days of receiving test results, the parents and guardians of the pupils who attend the school or preschool where the elevated lead level was found of the elevated level and provide information to those parents and guardians on how to obtain physician testing for any pupil who may be affected by the elevated lead level.

(3

- (4) A local educational agency shall make inoperable and shut down from use any part of a schoolsite potable water system that has an elevated lead level.
- (5) If a test reveals that a schoolsite's lead level is greater than 5 parts per billion, every potable water system at the schoolsite shall be tested that year.
- (b) (1) At least once a year, the Board of Governors of the California Community Colleges and the Trustees of the California State University shall test for lead in the potable water system at every campus with a building constructed before January 1, 1986, within their respective jurisdictions.
- (2) At least once every three years, the Board of Governors of the California Community Colleges and the Trustees of the California State University shall test for lead in the potable water system at every campus with a building constructed on or after January 1, 1986, within their respective jurisdictions.

 $\left(2\right)$

(3) If a test reveals that a campus lead level is greater than the United States Environmental Protection Agency drinking water standards for lead, as those standards existed on January 1, 2017, the Board of Governors of the California Community Colleges or the Trustees of the California State University shall notify, within

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1 seven days of receiving test results, students who attend the campus

- 2 where the elevated lead level was found of the elevated level and
- 3 provide information to those students on how to obtain physician
- 4 testing for any student who may be affected by the elevated lead 5 level.
- 6 (3)

- (4) The Board of Governors of the California Community Colleges and the Trustees of the California State University shall make inoperable and shut down from use any part of a campus potable water system that has an elevated lead level.
- (5) If a test reveals that a campus lead level is greater than 5 parts per billion, every potable water system at the campus shall be tested that year.
- (c) The Regents of the University of California are encouraged to adopt an appropriate resolution to implement subdivision (b) for the University of California.
- (d) A local educational agency, the Board of Governors of the California Community Colleges, and the Trustees of the California State University may do the following:
- (1) Contract with a third party to conduct testing required by this section.
- (2) Seek the assistance of a local health agency, a community water system, or the State Water Resources Control Board to ensure compliance with this section.
- (e) A local educational agency, the Board of Governors of the California Community Colleges, and the Trustees of the California State University shall use the State Water Resources Control Board's protocol for testing water.
 - (f) For purposes of this section, the following definitions apply:
- (1) "Local educational agency" means a school district, county office of education, or charter school.
- (2) "Potable water system" means the water fountains and faucets used for drinking and preparing food.
- SEC. 2. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

Introduced by Assembly Member Friedman

February 16, 2017

An act to add Section 25402.14 to the Public Resources Code, relating to water conservation.

LEGISLATIVE COUNSEL'S DIGEST

AB 1000, as introduced, Friedman. Water conservation: certification. Existing law requires the State Energy Resources Conservation and Development Commission to establish design and construction standards and energy and water conservation design standards that increase efficiency in the use of energy and water for new residential and new nonresidential buildings to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy. Existing law requires the commission to establish minimum levels of operating efficiency to promote the use of energy and water efficient appliances.

This bill would require the commission to certify innovative water conservation and water loss detection and control technologies that meet certain criteria.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 25402.14 is added to the Public Resources
- 2 Code, to read:

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1 25402.14. The commission shall certify innovative water

- conservation and water loss detection and control technologies that meet both of the following criteria:

 (a) The technology increases the energy efficiency of the system 4 5 affected.
- (b) The technology is cost effective. 6

AMENDED IN ASSEMBLY MARCH 28, 2017

CALIFORNIA LEGISLATURE—2017–18 REGULAR SESSION

ASSEMBLY BILL

No. 1587

Introduced by Assembly Member Levine

February 17, 2017

An act to amend Section 675 of the Harbors and Navigation 2301 of the Fish and Game Code, and to amend Section 676 of the Harbors and Navigation Code, relating to vessels. invasive species.

LEGISLATIVE COUNSEL'S DIGEST

AB 1587, as amended, Levine. Vessels: registration fee: Quagga and Zebra Mussel Infestation Prevention Program. Invasive species: dreissenid mussels.

Existing law, until January 1, 2020, generally prohibits a person from possessing, importing, shipping, or transporting in the state, or from placing, planting, or causing to be placed or planted in any water within the state, dreissenid mussels, and authorizes the Director of Fish and Wildlife to engage in various enforcement activities with regard to dreissenid mussels. Among those activities, existing law authorizes the director to conduct inspections of waters of the state and facilities located within waters of the state that may contain dreissenid mussels and, if those mussels are detected or may be present, order the closure of the waters or facilities to conveyances or otherwise restrict access to the waters or facilities, with the concurrence of the Secretary of the Natural Resources Agency.

Existing law requires any person, or federal, state, or local agency, district, or authority, that owns or manages a reservoir, as defined, where certain recreational activities are permitted, except a privately owned reservoir that is not open to the public, and where nonnative

AB 1587 -2-

dreissenid mussels have not been detected, to assess the vulnerability of the reservoir for the introduction of nonnative dreissenid mussel species and to develop and implement a program designed to prevent the introduction of that species.

Existing law requires the owner of a vessel, as described, to register the vessel in accordance with prescribed requirements. Existing law establishes a registration fee for vessels. Existing law imposes an additional-fee fee, known as the quagga and zebra mussel prevention infestation fee, in specified amounts, as determined by the division, Division of Boating and Waterways, on a vessel required to pay that fee, and requires funds from the fee, upon appropriation by the Legislature, to be used to, among other things, implement and administer dreissenid mussel monitoring, inspection, and infestation prevention programs, as prescribed. Existing law requires the division to award grants from those funds to entities that own or manage reservoirs described above for the reasonable regulatory costs incident to the implementation of a dreissenid mussel prevention and inspection program.

This bill would make nonsubstantive changes in that provision imposing an additional fee to be used for those dreissenid mussel monitoring, inspection, and infestation prevention programs. instead require, rather than authorize, the Director of Fish and Wildlife to order the closure of waters or facilities to conveyances for a period of no less than 7 working days if dreissenid mussels are detected or may be present and would make other related changes. Upon lifting a closure on a reservoir described above where dreissenid mussels have been detected, the bill would require the director to order the entity that owns or manages the reservoir to implement a dreissenid mussel control program to prevent the spread of dreissenid mussels within the state from conveyances exiting the reservoir. The bill would authorize the Division of Boating and Waterways to award grants from funds generated from the quagga and zebra mussel prevention infestation fee to those entities required by the director to implement a dreissenid mussel control program for the reasonable regulatory costs to implement the program. The bill would make violations of an order issued by the director subject to a civil penalty of \$1,000 per violation, imposed administratively by the Department of Fish and Wildlife.

Vote: majority. Appropriation: no. Fiscal committee: no-yes. State-mandated local program: no.

-3- AB 1587

The people of the State of California do enact as follows:

1 2

SECTION 1. The Legislature finds and declares all of the following:

- (a) Quagga and zebra mussels, nonnative dreissenid mussels introduced in the United States from Europe in 1988, pose an immediate and significant threat to California's water supply, flood control, power generation, and aquatic recreation infrastructure.
- (b) California law generally makes it unlawful to possess, import, ship, or transport in the state, or place, plant, or cause to be placed or planted in any water within the state, dreissenid mussels.
- (c) The quagga and zebra mussel infestation prevention fee is an additional fee imposed on the boater registration fee that funds a program administered by the Division of Boating and Waterways to prevent the spread of quagga and zebra mussels in the state. The division uses a portion of the funds to award grants to owners or managers of certain reservoirs to develop and implement a program designed to prevent the spread of quagga and zebra mussels through activities including watercraft inspection, the use of decontamination processes and units, and the implementation of banding programs. This funding is only available to owners or managers of water bodies where quagga or zebra mussels have not been detected.
- (d) Despite the existing law and prevention activity, quagga and zebra mussels continue to spread in the state.
- (e) On December 8, 2016, six adult quagga mussels were discovered by the Department of Water Resources in the Angeles Tunnel, a pipeline that moves water from Pyramid Lake to Elderberry Forebay and subsequently to Castaic Lake in the County of Los Angeles.
- (f) On December 15, 2016, the Metropolitan Water District of Southern California and the Los Angeles Department of Water and Power discovered two adult quagga mussels at the Castaic Power Plant at the northern end of Elderberry Forebay, which is currently dewatered. This incident is the first known finding of quagga or zebra mussels in a water body that is part of the State Water Project.

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(g) It is in the state's interest to prevent quagga and zebra mussels from spreading farther into the State Water Project by authorizing the Division of Boating and Waterways to provide grants for controlling the spread of quagga or zebra mussels to the owners or managers of certain reservoirs where quagga or zebra mussels have been detected.

- SEC. 2. Section 2301 of the Fish and Game Code is amended to read:
- 2301. (a) (1) Except as authorized by the department, a person shall not possess, import, ship, or transport in the state, or place, plant, or cause to be placed or planted in any water within the state, dreissenid mussels.
- (2) The director or his or her designee may do all of the following:
- (A) Conduct inspections of conveyances, which include vehicles, boats and other watercraft, containers, and trailers, that may carry or contain adult or larval dreissenid mussels. Included as part of this authority to conduct inspections is the authority to temporarily stop conveyances that may carry or contain adult or larval dreissenid mussels on any roadway or waterway in order to conduct inspections.
- (B) Order that areas in a conveyance that contain water be drained, dried, or decontaminated pursuant to procedures approved by the department.
- (C) Impound or quarantine conveyances in locations designated by the department for up to five days or the period of time necessary to ensure that dreissenid mussels can no longer live on or in the conveyance.
- (D) (i) Conduct inspections of waters of the state and facilities located within waters of the state that may contain dreissenid mussels. If dreissenid mussels are detected or may be present, the director or his or her designee may shall order the affected waters or facilities closed to conveyances or otherwise restrict access to the affected waters or facilities, for a period of no less than seven working days and shall order that conveyances removed from, or introduced to, the affected waters or facilities be inspected, quarantined, or and disinfected in a manner and for a duration necessary to detect and prevent the spread of dreissenid mussels within the state.

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(ii) For the purpose of implementing clause (i), the director or his or her designee shall order the closure or quarantine of, or restrict access to, of these waters, areas, or facilities in a manner and duration-necessary necessary, but no less than seven working days, to detect and prevent the spread of dreissenid mussels within the state. No closure, quarantine, or restriction A closure shall not be authorized by the director or his or her designee without the concurrence of the Secretary of the Natural Resources Agency. If a closure lasts longer than seven days, the department shall update the operator of the affected facility every 10 days on efforts to address the dreissenid mussel infestation. The department shall provide these updates in writing and also post these updates on the department's Internet Web site in an easily accessible manner.

- (iii) The department shall develop procedures to ensure proper notification of affected local and federal agencies, and, as appropriate, the Department of Water Resources, the Department of Parks and Recreation, and the State Lands Commission in the event of a decision to-close, quarantine, or restrict close a facility pursuant to this paragraph. These procedures shall include the reasons for the closure, quarantine, or restriction, closure and methods for providing updated information to those affected. These procedures shall also include protocols for the posting of the notifications on the department's Internet Web site required by clause (ii).
- (iv) When deciding the scope, duration, level, and type of restrictions, and specific location of a closure or quarantine, restrictions of a closure, the director shall consult with the agency, entity, owner, or operator with jurisdiction, control, or management responsibility over the marina, boat launch facility, or other facility, in order to focus the closure or quarantine to specific areas and facilities so as to avoid or minimize disruption of economic or recreational activity in the vicinity.
- (v) Upon lifting a closure pursuant to clause (i) on a reservoir described in subdivision (a) of Section 2302 where dreissenid mussels have been detected, the director shall order the entity that owns or manages that reservoir to implement a dreissenid mussel control program to prevent the spread of dreissenid mussels within the state from conveyances exiting the reservoir. The program shall include the installation and operation of decontamination stations at the reservoir and a requirement that conveyances exiting

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the reservoir be decontaminated. The entity administering the program shall be immune from liability for any damage to conveyances resulting from reasonable activities conducted pursuant to the decontamination process. Violation of this clause is not subject to the sanctions set forth in Section 12000. A person who violates an order issued by the director pursuant to this clause shall, instead, be subject to a civil penalty in an amount not to exceed one thousand dollars (\$1,000) per violation, that is imposed administratively by the department.

- (b) (1) Upon a determination by the director that it would further the purposes of this section, other state agencies, including, but not limited to, the Department of Parks and Recreation, the Department of Water Resources, the Department of Food and Agriculture, and the State Lands Commission, may exercise the authority granted to the department in subdivision (a).
- (2) A determination made pursuant to paragraph (1) shall be in writing and shall remain in effect until withdrawn, in writing, by the director.
- (c) (1) Except as provided in paragraph (2), Division 13 (commencing with Section 21000) of the Public Resources Code does not apply to the implementation of this section.
- (2) An action undertaken pursuant to subparagraph (B) of paragraph (2) of subdivision (a) involving the use of chemicals other than salt or hot water to decontaminate a conveyance or a facility is subject to Division 13 (commencing with Section 21000) of the Public Resources Code.
- (d) (1) A public or private agency that operates a water supply system shall cooperate with the department to implement measures to avoid infestation by dreissenid mussels and to control or eradicate any infestation that may occur in a water supply system. If dreissenid mussels are detected, the operator of the water supply system, in cooperation with the department, shall prepare and implement a plan to control or eradicate dreissenid mussels within the system. The approved plan shall contain the following minimum elements:
- (A) Methods for delineation of infestation, including both adult mussels and veligers.
- (B) Methods for control or eradication of adult mussels and decontamination of water containing larval mussels.

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(C) A systematic monitoring program to determine any changes in conditions.

- (D) The requirement that the operator of the water supply system permit inspections by the department as well as cooperate with the department to update or revise control or eradication measures in the approved plan to address scientific advances in the methods of controlling or eradicating mussels and veligers.
- (2) If the operator of water delivery and storage facilities for public water supply purposes has prepared, initiated, and is in compliance with all the elements of an approved plan to control or eradicate dreissenid mussels in accordance with paragraph (1), the requirements of subdivision (a) do not apply to the operation of those water delivery and storage facilities, and the operator is not subject to any civil or criminal liability for the introduction of dreissenid mussel species as a result of those operations. The department may require the operator of a facility to update its plan, and if the plan is not updated or revised as described in subparagraph (D) of paragraph (1), subdivision (a) shall apply to the operation of the water delivery and storage facilities covered by the plan until the operator updates or revises the plan and initiates and complies with all of the elements of the updated or revised plan.
- (e) Any entity that discovers dreissenid mussels within this state shall immediately report the discovery to the department.
- (f) (1) In addition to any other penalty provided by law, any person who violates this section, violates any verbal or written order or regulation adopted pursuant to this section, or who resists, delays, obstructs, or interferes with the implementation of this section, is subject to a penalty, in an amount not to exceed one thousand dollars (\$1,000), that is imposed administratively by the department.
- (2) A penalty shall not be imposed pursuant to paragraph (1) unless the department has adopted regulations specifying the amount of the penalty and the procedure for imposing and appealing the penalty.
- (g) The department may adopt regulations to carry out this section.
- (h) Pursuant to Section 818.4 of the Government Code, the department and any other state agency exercising authority under

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this section shall not be liable with regard to any determination or authorization made pursuant to this section.

- (i) This section shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2020, deletes or extends that date.
- SEC. 3. Section 676 of the Harbors and Navigation Code is amended to read:
- 676. (a) All moneys deposited in the Harbors and Watercraft Revolving Fund pursuant to Section 675 shall be available, upon appropriation by the Legislature, for the following purposes:
- (1) For reasonable costs incurred by the department division associated with determining the prevention fee and adoption of regulations pursuant to Section 675, and with administering the grants pursuant to subdivision (b).
- (2) (A) For reasonable costs, not to exceed 15 percent of the remaining revenues deposited into the fund, of the Department of Fish and Game Wildlife for implementation of subparagraph (A) or (C) of paragraph (2) of, or paragraph (1) of, subdivision (a) of Section 2301 or Section 2302 of the Fish and Game Code in those areas of the state where a dreissenid mussel infestation prevention plan has not been implemented.
- (B) The amount specified in subparagraph (A) is in addition to moneys available pursuant to subdivision (d) of Section 85.2.
- (3) An amount not less than 85 percent of the remaining revenues deposited into the fund shall be made available for grants both of the following:
- (A) Grants to entities subject to subdivision (a) of Section 2302 of the Fish and Game Code for the reasonable regulatory costs incident to the implementation of a dreissenid mussel infestation prevention plan implemented either before or after January 1, 2013, that is consistent with the requirements of Section 2302 of the Fish and Game Code.
- (B) Grants to entities that own or manage a reservoir described in subdivision (a) of Section 2302 of the Fish and Game Code in which dreissenid mussels have been detected for the reasonable regulatory costs to implement a dreissenid mussel control program required pursuant to clause (v) of subparagraph (D) of paragraph (2) of subdivision (a) of Section 2301 of the Fish and Game Code to prevent the spread of dreissenid mussels within the state from conveyances exiting those reservoirs.

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(b) For the purposes of awarding grants pursuant to *subparagraph* (A) of paragraph (3) of subdivision (a), the department division shall do all of the following:

- (1) Give priority to dreissenid mussel infestation prevention plans that are consistent with Section 2302 of the Fish and Game Code and that also include visual and manual inspection standards and other infestation prevention procedures consistent with either the Department of Fish and Game's Wildlife's Invasive Mussel Guidebook for Recreational Water Managers and Users, dated September 2010, or the Natural Resource Agency's Aquatic Invasive Species Management Plan, dated January 2008, or subsequently adopted guidebooks and management plans.
- (2) Take into consideration the benefits of regional-scale dreissenid mussel infestation prevention plans.
- (3) Take into consideration the unique economic, ecological, and recreational impacts to rural and urban reservoirs from dreissenid mussel infestation.
- (c) For purposes of this article, reasonable regulatory costs include include, but are not limited to, costs associated with the investigation and inspection of a conveyance for the presence of dreissenid mussels prior to contact with a reservoir, as defined in Section 6004.5 of the Water Code. Code, and the decontamination of conveyances before and after contact with a reservoir. None of the revenues collected pursuant to subdivision (a) of Section 675 shall be used for any purpose other than those explicitly authorized by this section.
- (d) For the purposes of this section, conveyances include boats and other watercraft, and associated vehicles, containers, and trailers that may carry or contain adult or larval dreissenid mussels.
- (e) As a condition of receiving grant funding pursuant to this section, an entity shall report to the department division data, as deemed appropriate by the department, division, regarding dreissenid mussel prevention and inspection programs or dreissenid mussel control programs implemented with the funding, as applicable.

SECTION 1. Section 675 of the Harbors and Navigation Code is amended to read:

675. (a) In addition to the fees imposed that are imposed pursuant to paragraphs (1) and (2) of subdivision (b) of Section 9853 or Section 9860 of the Vehicle Code, there shall also be

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1 imposed an additional quagga and zebra mussel infestation 2 prevention fee in an amount to be determined by the division as 3 follows:

- (1) The additional prevention fee imposed with the registration fee collected pursuant to paragraph (1) of subdivision (b) of Section 9853 of the Vehicle Code shall be not more than ten dollars (\$10).
- (2) The additional prevention fee imposed with the registration fee collected pursuant to paragraph (2) of subdivision (b) of Section 9853 of the Vehicle Code shall be not more than twenty dollars (\$20).
- (3) The additional prevention fee imposed with the registration fee collected pursuant to Section 9860 of the Vehicle Code shall be not more than twenty dollars (\$20).
- (b) In determining the amount of the fee imposed pursuant to this subdivision, the division shall establish, and consult with, a technical advisory group consisting of interested persons, including, but not limited to, recreational boating and reservoir operation representatives. The members of the advisory group shall be appointed by the director.
- (c) The division shall adopt an emergency regulation to prescribe procedures for the collection and use of the quagga and zebra mussel infestation prevention fee for the purposes of this article. The emergency regulations shall include rules for administering the grants awarded pursuant to Section 676.
- (d) All revenues collected from the fee shall be deposited into the Harbors and Watercraft Revolving Fund, and shall be expended solely for the purposes set forth in Section 676.
- (e) The fee established by this section shall not apply to vessels that are used exclusively in marine waters.

Introduced by Assembly Member Aguiar-Curry (Coauthors: Assembly Members Chiu, Eggman, Eduardo Garcia, Gloria, Limón, McCarty, Mullin, Rubio, Santiago, and Ting)

February 17, 2017

Assembly Constitutional Amendment No. 4—A resolution to propose to the people of the State of California an amendment to the Constitution of the State, by amending Sections 1 and 4 of Article XIII A thereof, by amending Section 2 of, and by adding Section 2.5 to, Article XIII C thereof, by amending Section 3 of Article XIII D thereof, and by amending Section 18 of Article XVI thereof, relating to local finance.

LEGISLATIVE COUNSEL'S DIGEST

ACA 4, as introduced, Aguiar-Curry. Local government financing: affordable housing and public infrastructure: voter approval.

(1) The California Constitution prohibits the ad valorem tax rate on real property from exceeding 1% of the full cash value of the property, subject to certain exceptions.

This measure would create an additional exception to the 1% limit that would authorize a city, county, or city and county to levy an ad valorem tax to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, if the proposition proposing that tax is approved by 55% of the voters of the city, county, or city and county, as applicable, and the proposition includes specified accountability requirements.

(2) The California Constitution conditions the imposition of a special tax by a local government upon the approval of $\frac{2}{3}$ of the voters of the

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local government voting on that tax, and prohibits these entities from imposing an ad valorem tax on real property or a transactions or sales tax on the sale of real property.

This measure would authorize a local government to impose, extend, or increase a special tax for the purposes of funding the construction, rehabilitation or replacement of public infrastructure or affordable housing, if the proposition proposing that tax is approved by 55% of its voters voting on the proposition and the proposition includes specified accountability requirements. This measure would also make conforming changes to related provisions.

(3) The California Constitution prohibits specified local government agencies from incurring any indebtedness exceeding in any year the income and revenue provided in that year, without the assent of $\frac{2}{3}$ of the voters and subject to other conditions. In the case of a school district, community college district, or county office of education, the California Constitution permits a proposition for the incurrence of indebtedness in the form of general obligation bonds for the construction, reconstruction, rehabilitation, or replacement of school facilities, including the furnishing and equipping of school facilities, or the acquisition or lease of real property for school facilities, to be adopted upon the approval of 55% of the voters of the district or county, as appropriate, voting on the proposition at an election.

This measure would similarly lower to 55% the voter-approval threshold for a city, county, or city and county to incur bonded indebtedness, exceeding in any year the income and revenue provided in that year, that is in the form of general obligation bonds issued to fund the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing projects, if the proposition proposing that bond includes specified accountability requirements.

Vote: ²/₃. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

- 1 Resolved by the Assembly, the Senate concurring, That the
- 2 Legislature of the State of California at its 2017-18 Regular
- 3 Session commencing on the fifth day of December 2016, two-thirds
- 4 of the membership of each house concurring, hereby proposes to
- 5 the people of the State of California, that the Constitution of the
- 6 State be amended as follows:
- 7 First—That Section 1 of Article XIII A thereof is amended to
- 8 read:

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SECTION 1. (a) The maximum amount of any ad valorem tax on real property shall not exceed—One *I* percent—(1%) of the full cash value of—such that property. The—one *I* percent—(1%) tax to shall be collected by the counties and apportioned according to law to the districts within the counties.

- (b) The limitation provided for in subdivision (a) shall not apply to ad valorem taxes or special assessments to pay the interest and redemption charges on any of the following:
- (1) Indebtedness approved by the voters prior to before July 1, 1978.
- (2) Bonded indebtedness—for to fund the acquisition or improvement of real property approved on or after July 1, 1978, by two-thirds of the votes cast by the voters voting on the proposition.
- (3) Bonded indebtedness incurred by a school district, community college district, or county office of education for the construction, reconstruction, rehabilitation, or replacement of school facilities, including the furnishing and equipping of school facilities, or the acquisition or lease of real property for school facilities, approved by 55 percent of the voters of the district or county, as appropriate, voting on the proposition on or after-the effective date of the measure adding this paragraph. November 8, 2000. This paragraph shall apply only if the proposition approved by the voters and resulting in the bonded indebtedness includes all of the following accountability requirements:
- (A) A requirement that the proceeds from the sale of the bonds be used only for the purposes specified in Article XIII A, Section 1(b)(3), this paragraph, and not for any other purpose, including teacher and administrator salaries and other school operating expenses.
- (B) A list of the specific school facilities projects to be funded and certification that the school district board, community college board, or county office of education has evaluated safety, class size reduction, and information technology needs in developing that list.
- (C) A requirement that the school district board, community college board, or county office of education conduct an annual, independent performance audit to ensure that the funds have been expended only on the specific projects listed.

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(D) A requirement that the school district board, community college board, or county office of education conduct an annual, independent financial audit of the proceeds from the sale of the bonds until all of those proceeds have been expended for the school facilities projects.

- (4) (A) Bonded indebtedness incurred by a city, county, or city and county for the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, or the acquisition or lease of real property for public infrastructure or affordable housing, approved by 55 percent of the voters of the city, county, or city and county as appropriate, voting on the proposition on or after the effective date of the measure adding this paragraph. This paragraph shall apply only if the proposition approved by the voters and resulting in the bonded indebtedness includes all of the following accountability requirements:
- (i) A requirement that the proceeds from the sale of the bonds be used only for the purposes specified in this paragraph, and not for any other purpose, including city, county, or city and county employee salaries and other operating expenses.
- (ii) A list of the specific projects to be funded, and a certification that the city, county, or city and county has evaluated alternative funding sources.
- (iii) A requirement that the city, county, or city and county conduct an annual, independent performance audit to ensure that the funds have been expended only on the specific projects listed.
- (iv) A requirement that the city, county, or city and county conduct an annual, independent financial audit of the proceeds from the sale of the bonds until all of those proceeds have been expended for the public infrastructure or affordable housing projects, as applicable.
- (v) A requirement that the city, county, or city and county post the audits required by clauses (iii) and (iv) in a manner that is easily accessible to the public.
- (vi) A requirement that the city, county, or city and county appoint a citizens' oversight committee to ensure that bond proceeds are expended only for the purposes described in the measure approved by the voters.
- (B) For purposes of this paragraph, "affordable housing" shall include housing developments, or portions of housing developments, that provide workforce housing affordable to

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1 households earning up to 150 percent of countywide median 2 income, and housing developments, or portions of housing

- 3 developments, that provide housing affordable to lower, low-, or
- 4 very low income households, as those terms are defined in state 5 law.
 - (C) For purposes of this paragraph, "public infrastructure" shall include, but is not limited to, projects that provide any of the following:
 - (i) Water or protect water quality.
- 10 (ii) Sanitary sewer.
- 11 (iii) Treatment of wastewater or reduction of pollution from 12 stormwater runoff.
- 13 (iv) Protection of property from impacts of sea level rise.
- 14 (v) Parks.

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- 15 (vi) Open space and recreation facilities.
- 16 (vii) Improvements to transit and streets and highways.
- 17 (viii) Flood control.
- 18 (ix) Broadband expansion in underserved areas.
 - (x) Local hospital construction.
- 20 (c) Notwithstanding any other provisions of law or of this 21 Constitution, a school—districts, district, community college 22 districts, and district, county-offices office of education education, 23 city, county, or city and county may levy a 55 percent vote ad 24 valorem tax pursuant to subdivision (b).
- 25 Second—That Section 4 of Article XIII A thereof is amended 26 to read:
- 27 SEC. 4. Cities, Counties and special districts, Except as 28 provided by Section 2.5 of Article XIIIC, a city, county, or special 29 district, by a two-thirds vote of the qualified electors of such 30 district, its voters voting on the proposition, may impose special 31 taxes on such district, a special tax within that city, county, or 32 special district, except an ad valorem-taxes tax on real property 33 or a-transaction transactions tax or sales tax on the sale of real 34 property within such City, County that city, county, or special 35 district.
- Third—That Section 2 of Article XIII C thereof is amended to read:
- 38 SEC. 2. Local Government Tax Limitation. Notwithstanding any other provision of this Constitution:

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(a) All taxes-Any tax imposed by-any a local government-shall be deemed to be is either a general-taxes tax or a special-taxes. Special purpose districts tax. A special district or-agencies, agency, including a school-districts, shall have no power district, has no authority to levy a general-taxes. tax.

- (b) No-A local government may *not* impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote. A general tax-shall is not-be deemed to have been increased if it is imposed at a rate not higher than the maximum rate so approved. The election required by this subdivision shall be consolidated with a regularly scheduled general election for members of the governing body of the local government, except in cases of emergency declared by a unanimous vote of the governing body.
- (c) Any general tax imposed, extended, or increased, without voter approval, by any local government on or after January 1, 1995, and prior to the effective date of this article,—shall may continue to be imposed only if that general tax is approved by a majority vote of the voters voting in an election on the issue of the imposition, which election shall be held—within two years of the effective date of this article no later than November 6, 1996, and in compliance with subdivision (b).
- (d) No-Except as provided by Section 2.5, a local government may not impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote. A special tax-shall is not-be deemed to have been increased if it is imposed at a rate not higher than the maximum rate so approved.

Fourth—That Section 2.5 is added to Article XIII C thereof, to read:

- SEC. 2.5. (a) The imposition, extension, or increase of a special tax by a local government for the purpose of funding the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, or the acquisition or lease of real property for public infrastructure or affordable housing, is subject to approval by 55 percent of the voters in the local government voting on the proposition, if all of the following conditions are met:
- (1) The proposition is approved by a majority vote of the membership of the governing board of the local government.

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(2) The proposition contains all of the following accountability requirements:

- (A) A requirement that the proceeds of the tax only be used for the purposes specified in the proposition, and not for any other purpose, including general employee salaries and other operating expenses of the local government.
- (B) A list of the specific projects that are to be funded by the tax, and a certification that the local government has evaluated alternative funding sources.
- (C) A requirement that the local government conduct an annual, independent performance audit to ensure that the proceeds of the special tax have been expended only on the specific projects listed in the proposition.
- (D) A requirement that the local government conduct an annual, independent financial audit of the proceeds from the tax during the lifetime of that tax.
- (E) A requirement that the local government post the audits required by subparagraphs (C) and (D) in a manner that is easily accessible to the public.
- (F) A requirement that the local government appoint a citizens' oversight committee to ensure the proceeds of the special tax are expended only for the purposes described in the measure approved by the voters.
- (b) For purposes of this section, the following terms have the following meanings:
- (1) "Affordable housing" shall include housing developments, or portions of housing developments, that provide workforce housing affordable to households earning up to 150 percent of countywide median income, and housing developments, or portions of housing developments, that provide housing affordable to lower, low-, or very low income households, as those terms are defined in state law.
- (2) "Public infrastructure" shall include, but is not limited to, the projects that provide any of the following:
 - (A) Water or protect water quality.
 - (B) Sanitary sewer.
- 37 (C) Treatment of wastewater or reduction of pollution from 38 stormwater runoff.
- 39 (D) Protection of property from impacts of sea level rise.
- 40 (E) Parks.

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- 1 (F) Open space and recreation facilities.
- 2 (G) Improvements to transit and streets and highways.
- 3 (H) Flood control.

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- 4 (I) Broadband expansion in underserved areas.
- 5 (J) Local hospital construction.
 - Fifth—That Section 3 of Article XIII D thereof is amended to read:
- SEC. 3. Property Taxes, Assessments, Fees and Charges
 Limited. (a) No-An agency shall not assess a tax, assessment, fee,
 or charge shall be assessed by any agency upon any parcel of
 property or upon any person as an incident of property ownership
 except:
 - (1) The ad valorem property tax imposed pursuant to Article XIII and Article XIII A.
- 15 (2) Any special tax receiving a two-thirds vote pursuant to Section 4 of Article XIII A.A or Section 2.5 of Article XIII C.
 - (3) Assessments as provided by this article.
 - (4) Fees or charges for property related property-related services as provided by this article.
 - (b) For purposes of this article, fees for the provision of electrical or gas service shall are not be deemed charges or fees imposed as an incident of property ownership.
 - Sixth—That Section 18 of Article XVI thereof is amended to read:
 - SEC. 18. (a) No-A county, city, town, township, board of education, or school district, shall not incur any indebtedness or liability in any manner or for any purpose exceeding in any year the income and revenue provided for such that year, without the assent of two-thirds of the voters of the public entity voting at an election to be held for that purpose, except that with respect to any such public entity which is authorized to incur indebtedness for public school purposes, any proposition for the incurrence of indebtedness in the form of general obligation bonds for the purpose of repairing, reconstructing or replacing public school buildings determined, in the manner prescribed by law, to be structurally unsafe for school use, shall be adopted upon the approval of a majority of the voters of the public entity voting on the proposition at such election; nor unless before or at the time of incurring such indebtedness provision shall be made for the collection of an annual tax sufficient to pay the interest on such

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indebtedness as it falls due, and to provide for a sinking fund for the payment of the principal thereof, on or before maturity, which shall not exceed forty years from the time of contracting the indebtedness.

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- (b) Notwithstanding subdivision (a), on or after the effective date of the measure adding this subdivision, in the case of any school district, community college district, or county office of education, any proposition for the incurrence of indebtedness in the form of general obligation bonds for the construction, reconstruction, rehabilitation, or replacement of school facilities, including the furnishing and equipping of school facilities, or the acquisition or lease of real property for school facilities, for the purposes described in paragraph (3) or (4) of subdivision (b) of Section 1 of Article XIII A, shall be adopted upon the approval of 55 percent of the voters of the district or county, school district, community college district, or county office of education, or city, county, or city and county, as appropriate, voting on the proposition at an election. This subdivision shall apply only to a proposition for the incurrence of indebtedness in the form of general obligation bonds for the purposes specified in this subdivision only if the proposition meets all of the accountability requirements of paragraph (3) or (4) of subdivision—(b) (b), as appropriate, of Section 1 of Article XIII A.
- (c) When two or more propositions for incurring any indebtedness or liability are submitted at the same election, the votes cast for and against each proposition shall be counted separately, and when two-thirds or a majority or 55 percent of the voters, as the case may be, voting on any one of those propositions, vote in favor thereof, the proposition shall be deemed adopted.

AMENDED IN ASSEMBLY MARCH 23, 2017

CALIFORNIA LEGISLATURE—2017–18 REGULAR SESSION

ASSEMBLY BILL

No. 975

Introduced by Assembly Member Friedman

(Coauthor: Senator Allen)

February 16, 2017

An act to amend Sections 5093.50 and 5093.52 of the Public Resources Code, relating to wild and scenic rivers.

LEGISLATIVE COUNSEL'S DIGEST

AB 975, as amended, Friedman. Natural resources: wild and scenic rivers.

Existing law establishes that it is the policy of the state that certain rivers that possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state.

This bill would revise that policy to specify that certain rivers that possess scenic, recreational, fishery, wildlife, historical, cultural, geological, ecological, hydrological, botanical, or other *similar* values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state, and would revise the definition of "immediate environments," and define the term "extraordinary value" for purposes of that policy.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

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The people of the State of California do enact as follows:

SECTION 1. Section 5093.50 of the Public Resources Code is amended to read:

3 5093.50. It is the policy of the State of California that certain 4 rivers that possess extraordinary scenic, recreational, fishery, wildlife, historical, cultural, geological, ecological, hydrological, botanical, or other similar values shall be preserved in their free-flowing state, together with their immediate environments, 8 for the benefit and enjoyment of the people of the state. The Legislature declares that such use of these rivers is the highest and 10 most beneficial use and is a reasonable and beneficial use of water 11 within the meaning of Section 2 of Article X of the California 12 Constitution. It is the purpose of this chapter to create a California 13 Wild and Scenic Rivers System to be administered in accordance 14 with the provisions of this chapter.

- SEC. 2. Section 5093.52 of the Public Resources Code is amended to read:
- 5093.52. As used in this chapter, the following terms have the following meaning:
- (a) "Secretary" means the Secretary of the Natural Resources Agency.
- (b) "Resources Agency" means the Natural Resources Agency and any constituent units of the Natural Resources Agency that the secretary determines to be necessary to accomplish the purposes of this chapter.
- (c) "River" means the water, bed, and shoreline of rivers, streams, channels, lakes, bays, estuaries, marshes, wetlands, and lagoons, up to the first line of permanently established riparian vegetation.
- (d) "Free-flowing" means existing or flowing without artificial impoundment, diversion, or other modification of the river. The presence of low dams, diversion works, and other minor structures does not automatically bar a river's inclusion within the system. However, this subdivision does not authorize or encourage future construction of those structures on any component of the system.
- 35 (e) "System" means the California Wild and Scenic Rivers36 System.
- 37 (f) "Land use regulation" means the regulation by any state or 38 local governmental entity, agency, or official of any activities that

-3— AB 975

take place other than directly on the waters of the segments of the rivers designated in Section 5093.54.

(g) "Director" means the Director of Fish and Wildlife.

- (h) "Immediate environments" means the corridor of land within one-quarter mile of the segments of the rivers designated in Section 5093.54.
- (i) "Special treatment areas" means, for purposes of this chapter, those areas defined as special treatment areas in Section 895.1 of Title 14 of the California Code of Regulations, as in effect on January 1, 2004, as that definition applies to wild and scenic river segments designated from time to time in Section 5093.54, and also includes areas within 200 feet of the watercourse transition line of a state-designated recreational river segment designated in Section 5093.54 that may be at risk during timber operations.
- (j) "Board" means the State Board of Forestry and Fire Protection.
- (k) "Extraordinary value" means a natural, cultural, or similar value that is outstanding or remarkable in a local, regional, or statewide context.



AGENDA NO.
MEETING DATE

13.1.	
April 25, 2017	

TITLE _	EBMUD SERIES 2017A AND 2017B WATER REVENUE/REFUNDING BONDS	
□ MOTION	■ RESOLUTION □ ORDINANCE	_

RECOMMENDED ACTION

Authorize and approve the issuance of EBMUD Water System Revenue/Refunding Bonds, Series 2017A and 2017B in aggregate principal amount not to exceed \$500 million, and approve the form and authorize the execution of certain documents, including a Supplemental Indenture, in connection with the issuance, securing and sale of such bonds.

SUMMARY

The Water System Revenue Bonds are expected to be sold in two series, Series 2017A and Series 2017B. The Series 2017 Bonds will fund Water System capital improvements for FY 2017 and FY 2018, may refund portions of the District's outstanding revenue bonds, and will pay costs of issuance of the bonds. The Bonds are contemplated to be issued in two series to facilitate the possible issuance of a portion of such bonds as "Green Bonds."

The bond resolution authorizes the issuance of the bonds in one or more series and approves the Preliminary Official Statement and Official Statement that will be used to market the bonds to investors, and other documents supporting the bond issuance, including a Supplemental Indenture, a continuing disclosure agreement, a bond purchase contract (in connection with a negotiated sale of the bonds) and escrow agreements (in connection with a refunding of outstanding District bonds), and authorizes their execution. It also delegates authority to the General Manager, the Director of Finance or the Treasury Manager or the designee of any of such officers to engage The Bank of New York Mellon Trust Company, N.A., the District's bond trustee, as trustee for the Series 2017A and Series 2017B Water Bonds, and as escrow agent under any escrow agreements for refunded bonds. The bond resolution further authorizes the General Manager, the Director of Finance, the Treasury Manager and the other proper officers of the District to take the necessary actions and execute other agreements, documents and certificates in order to provide for the sale and delivery of the bonds. The bonds are scheduled to be sold via a negotiated sale in June 2017 using underwriters from the District's recently selected underwriter pool.

This item was reviewed with the Finance/Administration Committee on April 25, 2017.

Funds Available:	Budget Code:	
DEPARTMENT SUBMITTING Finance	DEPARTMENT MANAGER or DIRECTOR Sophia D. Skoda	APPROVED Meeorfor R. Clark General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

EBMUD Series 2017A and 2017B Water Revenue Bonds April 25, 2017 Page 2

A copy of the bond resolution is attached. Copies of the other documents have been provided on the attached CD and paper copies are available from the Office of the Secretary upon request.

DISCUSSION

The Series 2017A and Series 2017B Bonds are proposed to fund capital improvements for FY 2017 and FY 2018. The current proposed budget assumes a bond issuance of \$129 million for FY 2017 to reimburse a portion of budgeted capital expenditures for that year. The proposed budget includes a total of \$179.5 million in bond proceeds for FY 2018 to fund capital improvements. The potential refundings include Series 2007B Water Bonds, which have a final maturity of June 1, 2019, and Series 2010A Water Bonds, which have a final maturity of June 1, 2036, and may include other outstanding Water Bonds to the extent the debt service savings threshold described below can be achieved. The potential refunded amounts for these two series are roughly \$13.1 million and \$173.9 million, respectively. The District will only refund bonds that provide net present value savings equal to at least 3 percent of the refunded par amount. Based on current market conditions, approximately \$13.1 million of Series 2007B Bonds and \$169.3 million of Series 2010A Bonds meet this savings threshold. These projected savings equal 9 percent savings as a percentage of the par amount refunded. The Series 2017 Water Bonds will be amortized so that the final maturity of the refunded bonds is not extended.

A summary of the key bond documents is as follows:

- Authorizing Resolution relating to the Series 2017 Water Bonds authorizes the issuance of the Series 2017 Water Bonds in two or more series or subseries in an amount not to exceed \$500 million (including not to exceed \$311 million to be issued for "new money" purposes to finance or reimburse the District for FY 2017 and FY 2018 capital expenditures), with a final maturity not later than June 1, 2047 and at a true interest cost to the District of not in excess of 5.5 percent (and with the net present value savings to the District in connection with any refunding bonds to be not less than 3 percent of the par amount of the refunded bonds).
- Twenty-Eighth Supplemental Indenture relating to the Series 2017 Water Bonds supplements the Water System Bond Indenture and provides the terms of the Series 2017 Water Bonds, including the principal and interest payment dates and the interest rates on the new Series 2017 Water Bonds. Under the Water System Bond Indenture, the District is obligated to set rates to provide net revenues sufficient to cover 1.1 times the annual debt service on all of the outstanding Water System bonds, which will include the Series 2017 Water Bonds.
- Bond Purchase Contract is the agreement between the District and the underwriters of the Series 2017 Water Bonds in connection with a negotiated sale of the bonds which provides the terms and conditions under which the underwriters agree to purchase the District's bonds for reoffering to the public and specifies the circumstances under which the underwriters' obligation may be terminated prior to delivery of the Bonds. The Authorizing Resolution provides that the discount to be paid to the underwriters in connection with their purchase of the bonds shall not exceed 0.4 percent of the aggregate principal amount of the bonds.

EBMUD Series 2017A and 2017B Water Revenue Bonds April 25, 2017 Page 3

- Escrow Agreements relate to the refunding and defeasance of the District's bonds to be refunded by the Series 2017 Water Bonds and provides for the deposit, investment and application of proceeds of the Series 2017 Water Bonds to refund and redeem such refunded bonds to and including the applicable redemption date therefor. Pursuant to the Authorizing Resolution the General Manager, the Director of Finance or the Treasury Manager of the District (or another duly authorized designee of the General Manager) is authorized to determine which bonds of the District are to be refunded, subject to the requirement that, consistent with District policy, the net present value savings to be realized by the District in connection with any such refunding be not less than 3 percent of the par amount of the refunded bonds. Under the Escrow Agreements, the Bank of New York, as escrow agent, is entitled to receive compensation for its services and receives certain indemnification from the District in connection with the transactions being undertaken similar to the indemnification afforded the Bank of New York in its role as trustee for the bonds under the Bond Indenture.
- Continuing Disclosure Agreement obligates the District to provide certain annual reports regarding the District and the Water System and notices of certain events in connection with the Series 2017 Water Bonds in the secondary market. Under the securities laws, the underwriters are required to obtain this commitment to provide ongoing disclosure from the District in connection with the District's bonds. Under the Continuing Disclosure Agreement, the Bank of New York, as dissemination agent, is entitled to receive compensation for its services and receives certain indemnification from the District in connection with its services similar to the indemnification afforded the Bank of New York in its role as trustee for the bonds under the Bond Indenture.
- Preliminary Official Statement (including Appendix A) is the disclosure document prepared by the District that provides information about the District and the Water System (primarily in Appendix A) and the terms of the bond sale to potential investors. A final Official Statement will be prepared after the sale of the bonds for distribution to actual purchasers of the Series 2017 Water Bonds. Under the federal securities laws, these disclosure documents are required to contain all information that would be material to investors in making their decision whether to purchase the Districts bonds, and must not contain an untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make such information therein, in the light of the circumstances under which it was presented, not misleading.

FISCAL IMPACT

At current market rates the District's debt service costs are expected to be consistent with budget estimates and net present value refunding savings are estimated at \$16.6 million. Cost of issuance is estimated at approximately \$690,500.

EBMUD Series 2017A and 2017B Water Revenue Bonds April 25, 2017 Page 4

ALTERNATIVE

<u>Do not issue the proposed bonds.</u> This alternative is not recommended because without the bond issue the District would need to fund capital improvement projects from cash on hand thereby decreasing the District's liquidity, which in turn would weaken the District's credit profile and put upward pressure on future borrowing costs.

ARC:SDS:TJG

Attachments

I:\Sec\2017 Board Related Items\042517 Board Agenda Items\FIN - BD1 - EBMUD Series 2017A and 2017B Water Revenue Bonds 042517.docx

Draft Prepared By

	<i>(</i>)
	Office of General Counsel
RESOLUTION NO.	•

AUTHORIZE AND APPROVE THE ISSUANCE OF NOT TO EXCEED \$500 MILLION AGGREGATE PRINCIPAL AMOUNT OF EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM REVENUE BONDS, SERIES 2017A AND WATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017B; APPROVE THE FORM AND AUTHORIZE THE EXECUTION OF CERTAIN DOCUMENTS IN CONNECTION WITH THE ISSUANCE, SECURING AND SALE OF SUCH BONDS; AND APPROVE CERTAIN ACTIONS RELATING THERETO

Introduced by Director

; Seconded by Director

WHEREAS, the East Bay Municipal Utility District (the "District") is authorized by Section 12850 et. seq. of the Public Utilities Code of the State of California (the "Act") to issue revenue bonds; and

WHEREAS, the District is authorized by Section 53580 et seq. of the Government Code of the State of California (the "Refunding Act") to issue refunding bonds; and

WHEREAS, pursuant to authority granted under the Act, the District has entered into a Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990 (the "Bond Indenture"), by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented; and

WHEREAS, the Bond Indenture provides that the District may issue water system revenue bonds as well as refunding bonds thereunder (any such bonds referred to herein as "Bonds") from time to time as authorized by a supplemental indenture; and

WHEREAS, pursuant to Resolution 33592-07 adopted by the Board of Directors (the "Board") of the District on April 10, 2007, the District has heretofore authorized and issued its Water System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds"), in the aggregate principal amount of \$54,790,000, pursuant to the Twelfth Supplemental Indenture, dated as of May 1, 2007, supplementing the Bond Indenture, of which \$19,155,000 in aggregate principal amount is outstanding as of the date hereof (\$6,075,000 of which matures on June 1, 2017 and \$13,080,000 of which is subject to optional redemption on or after such date); and

WHEREAS, pursuant to Resolution No. 33740-09 adopted by the Board on December 8, 2009, the District has heretofore authorized and issued its Water System Subordinated Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds"), in the aggregate principal amount of \$192,830,000, pursuant to the Sixteenth Supplemental Indenture, dated as of February 1, 2010, supplementing the Bond Indenture, of which \$183,400,000 in aggregate principal amount is outstanding as of the date hereof (\$2,455,000 of which matures on June 1, 2017 and \$173,925,000 of which is subject to optional redemption on or after June 1, 2020); and

WHEREAS, pursuant to Resolution No. 33606-07 adopted by the Board on June 12, 2007, the Board declared its intention to authorize the issuance of up to \$1.1 billion of water system revenue bonds; and, as of the date hereof, \$757,720,000 of such water system revenue bonds have been issued under the authority of Resolution No. 33606-07; and

WHEREAS, pursuant to the Act, the Refunding Act and the Bond Indenture, the Board has determined to authorize the issuance of revenue Bonds to be designated "East Bay Municipal Utility District Water System Revenue Bonds, Series 2017A," with such further or other designation as may be determined appropriate at the time of issuance of such bonds, if any, to further identify such bonds (herein called the "Series 2017A Bonds") and the issuance of revenue/refunding Bonds to be designated "East Bay Municipal Utility District Water System Revenue/Refunding Bonds, Series 2017B," with such further or other designation as may be determined appropriate at the time of issuance of such bonds, if any, to further identify such bonds (herein called the "Series 2017B Bonds" and, together with the Series 2017A Bonds, the "Series 2017 Bonds") in an aggregate principal amount not to exceed \$500,000,000 (of which amount not to exceed \$311,000,000 "new money" bonds shall be issued under the authority of Resolution No. 33606-07) to be issued pursuant to a Twenty-Eighth Supplemental Indenture (as hereinafter defined), by and between the District and the Trustee; and

WHEREAS, the Series 2017 Bonds are being issued in order to provide moneys (i) to finance and/or reimburse the District for certain costs of improvements to the water storage, transmission and distribution system of the District, (ii) to fund a portion of the interest accrued with respect to the Series 2017 Bonds during the period of acquisition and construction of such improvements, if so determined by the District, (iii) to refund all or a portion of the outstanding Series 2007B Bonds, outstanding Series 2010A Bonds and/or any other series of outstanding Bonds eligible for refunding, subject to the parameters of this Resolution, as determined by the officers of the District in accordance with Section 8 of this Resolution (such Bonds to be refunded, the "Refunded Bonds"), and (iv) to pay costs of issuance in connection with the Series 2017 Bonds; and

WHEREAS, the District has determined that the Series 2017A Bonds may be designated and sold as "green bonds;" and

WHEREAS, pursuant to one or more purchase contracts, by and between the District and the Underwriters (hereinafter defined), the Underwriters will purchase the Series 2017 Bonds and the District will deliver the Series 2017 Bonds to the Underwriters, upon certain conditions; and

WHEREAS, in order to provide for the refunding of the Refunded Bonds, the District intends to enter into one or more escrow agreements with the Trustee, as escrow agent, relating to the defeasance of such Refunded Bonds; and

WHEREAS, in order to provide a continuing disclosure undertaking pursuant to the requirements promulgated under Rule 15c2-12 of the Securities and Exchange Commission in connection with the Series 2017 Bonds, the District intends to enter into a continuing disclosure agreement, by and between the District and the Trustee; and

WHEREAS, the Underwriters will distribute a preliminary and final official statement (including any supplements or amendments thereto) relating to the Series 2017 Bonds to prospective and actual purchasers of the Series 2017 Bonds; and

WHEREAS, it is desirable that the Board provide for the issuance, securing and sale of the Series 2017 Bonds at this time; and

WHEREAS, there has been presented to this Board meeting proposed forms of certain financing documents relating to the Series 2017 Bonds and the issuance, sale and delivery thereof;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of East Bay Municipal Utility District, as follows:

Section 1. <u>Recitals True and Correct</u>. The Board hereby finds and determines that the foregoing recitals are true and correct.

Section 2. Authorization of Series 2017 Bonds. The issuance of the Series 2017 Bonds in two or more series or subseries on the terms and conditions set forth in, and subject to the limitations specified in, the Twenty-Eighth Supplemental Indenture is hereby authorized and approved. The Series 2017 Bonds will be dated, will bear interest at the rates, will mature on the dates, will be issued in the form, will be subject to redemption (if applicable), and will be as otherwise provided in the Twenty-Eighth Supplemental Indenture as the same is completed as provided in this Resolution. The proposed form of the Series 2017 Bonds, as set forth in the Twenty-Eighth Supplemental Indenture, is hereby approved and the President of the Board of Directors of the District is hereby authorized and directed to execute (by manual or facsimile signature) for and on behalf of the District the Series 2017 Bonds in substantially such form and the Secretary of the District is authorized and directed to attest (by manual or facsimile signature) thereto, and the Trustee is hereby authorized and directed to authenticate and deliver the Series 2017 Bonds to the Underwriters in accordance with the Purchase Contract (as hereinafter defined) and the Twenty-Eighth Supplemental Indenture; provided, however, that (i) the aggregate principal amount of Series 2017 Bonds shall not exceed \$500,000,000; (ii) the final maturity of any of the Series 2017 Bonds shall not be later than June 1, 2047; (iii) the true interest cost to the District of the Series 2017 Bonds shall not exceed 5.50% per annum; and (iv) the total net present value of the savings to the District from the delivery of any Series 2017 Bonds issued for the purpose of refunding shall be not less than three percent (3.00%) of the aggregate par amount of the Refunded Bonds refunded thereby.

Section 3. Approval of Twenty-Eighth Supplemental Indenture. The General Manager, the Director of Finance or the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District, and the Secretary of the District shall attest thereto, a supplemental indenture to the Bond Indenture in connection with the issuance of the Series 2017 Bonds (the herein-referenced Twenty-Eighth Supplemental Indenture), in substantially the form as submitted to this meeting, with such changes therein (and additions thereto to reflect the terms of sale of the Series 2017 Bonds) as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Norton Rose Fulbright US LLP and Curls Bartling P.C., the District's Co-Bond Counsel (such approval to be evidenced by the execution and delivery

thereof). The supplemental indenture, as executed and delivered (and numbered such consecutive number as may be appropriate at the time of issuance of the Series 2017 Bonds), is herein referred to as the "Twenty-Eighth Supplemental Indenture" and such Twenty-Eighth Supplemental Indenture is hereby approved.

Section 4. Selection of Underwriters; Approval of Purchase Contract(s). The Board hereby approves the engagement of Barclays Capital Inc., as senior managing underwriter, and Merrill Lynch, Pierce, Fenner & Smith Incorporated (or BofAML Securities, Inc., as may be applicable at the time of sale of the Series 2017 Bonds) and Goldman, Sachs & Co., as comanaging underwriters (and/or such other co-senior managing underwriters and/or co-managing underwriters as the Director of Finance shall determine) (collectively, the "Underwriters") in connection with the negotiated sale of the Series 2017 Bonds. The General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District one or more purchase contracts, in substantially the form of the purchase contract submitted to this meeting, with such changes, insertions and omissions (and additions thereto to reflect the terms of the sale of the Series 2017 Bonds or any subseries thereof) as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel (such approval to be evidenced by the execution and delivery thereof); provided however, that the Underwriters' discount with respect to the Series 2017 Bonds may not exceed 0.40% of the aggregate principal amount of Series 2017 Bonds purchased thereunder. Each such purchase contract, as executed and delivered, is hereinafter referred to as the "Purchase Contract" and such Purchase Contract is hereby approved.

Section 5. <u>Approval of Escrow Agreements</u>. The General Manager, the Director of Finance, the Treasury Manager or the designee of any such officers is hereby authorized and directed to execute for and on behalf of the District one or more escrow agreements, in substantially the form of the escrow agreements submitted to this meeting, with such changes therein as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel, such approval to be evidenced by the execution and delivery thereof. Each such escrow agreement, as executed and delivered, is hereinafter referred to as the "Escrow Agreements" and such Escrow Agreements are hereby approved.

Section 6. Approval of Continuing Disclosure Agreement. The General Manager, the Director of Finance or the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District a continuing disclosure agreement, in substantially the form as submitted to this meeting, with such changes therein as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel, such approval to be evidenced by the execution and delivery thereof. The continuing disclosure agreement, as executed and delivered, is hereinafter referred to as the "Continuing Disclosure Agreement" and such Continuing Disclosure Agreement is hereby approved.

Section 7. <u>Approval of Preliminary and Final Official Statement</u>. The Board hereby approves the form of preliminary official statement of the District relating to the Series 2017 Bonds, in substantially the form as submitted to this meeting, with such additions thereto and

changes therein (including such changes and additions to reflect the terms of the Series 2017 Bonds) as are approved by the General Manager, the Director of Finance or the Treasury Manager after consultation with the District's General Counsel and Co-Bond Counsel. The Director of Finance, the Treasury Manager or any duly authorized designee of the Director of Finance designated by the Director of Finance in writing to act on behalf of such officer for such purpose, is hereby authorized to authorize the Underwriters to distribute or cause to be distributed (via written format and/or through electronic means) in connection with the sale of the Series 2017 Bonds such preliminary official statement to prospective purchasers of the Series 2017 Bonds. The General Manager, the Director of Finance or the Treasury Manager or any designee of the Director of Finance designated by the Director of Finance in writing to act on behalf of such officer for such purpose is hereby authorized to certify that the preliminary official statement is as of its date "deemed final" for purposes of Rule 15c2-12 of the Securities and Exchange Commission.

The General Manager, the Director of Finance, the Treasury Manager or any designee of the General Manager designated by the General Manager in writing to act on behalf of such officer for such purpose is hereby authorized to cause to be prepared and to execute for and on behalf of the District a final official statement in substantially the form of the preliminary official statement with such changes therein and additions or supplements thereto to reflect the terms of the sale of the Series 2017 Bonds and to comply with applicable federal securities laws as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel, such approval to be evidenced by the execution and delivery thereof. The Director of Finance, the Treasury Manager or any duly authorized designee of the Director of Finance designated by the Director of Finance in writing to act on behalf of such officer for such purpose, is hereby authorized to authorize the Underwriters to distribute (via written format and/or through electronic means) the final official statement (and any supplement thereto) in connection with the sale and delivery of the Series 2017 Bonds.

Section 8. Authorization to Make Certain Determinations in Connection with Refunding. Notwithstanding anything in this Resolution to the contrary but subject to the parameters set forth herein, the General Manager, the Director of Finance, the Treasury Manager or any duly authorized designee of the General Manager designated by the General Manager in writing to act on behalf of such officer for such person is hereby authorized to determine the outstanding Bonds of the District to be refunded, which may include all or a portion of the District's other outstanding Bonds in addition to the Series 2007B Bonds and Series 2010A Bonds, which determination shall be made taking into account the advice of Montague DeRose and Associates, LLC and Backstrom McCarley Berry & Co., LLC, the District's co-municipal advisors, and on the basis of what bond structure in light of the existing market conditions is in the best interest of the District, which determinations shall be conclusively evidenced by the issuance and delivery of the Series 2017 Bonds.

Section 9. <u>Additional Actions</u>. The General Manager, the Director of Finance, the Treasury Manager and all such other proper officers of the District be and they hereby are authorized, individually and collectively, to take all actions and execute any and all documents necessary: to engage The Bank of New York Mellon Trust Company, N.A. as trustee and paying agent under the Twenty-Eighth Supplemental Indenture and as escrow agent under the Escrow

Agreements; to effect the sale and delivery of the Series 2017 Bonds pursuant to the Bond Indenture as supplemented and the Purchase Contract and to do any and all things and to execute and deliver such other agreements, documents and certificates (including without limitation executing and delivering one or more tax certificates relating to the Series 2017 Bonds and/or any investment agreements relating to the investment of the Series 2017 Bond proceeds, and taking any and all actions to provide for the giving of written directions and notices and the securing of any necessary third party approvals in connection with the issuance of the Series 2017 Bonds and the refunding of the Refunded Bonds) as may be necessary, convenient, or advisable in order to consummate the sale, execution and delivery of the Series 2017 Bonds and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, the Series 2017 Bonds, the Bond Indenture, the Twenty-Eighth Supplemental Indenture, the Purchase Contract, the Escrow Agreements, the Continuing Disclosure Agreement, the preliminary official statement(s) and the final official statement(s) and the transactions herein authorized. All such actions heretofore taken by such officers or their designees are hereby ratified, confirmed and approved.

ADOPTED this 25 th day of April, 2017 by the following vote:	
AYES:	
NOES:	
ABSENT:	
ABSTAIN:	
ATTEST:	esiden
Secretary	
APPROVED AS TO FORM AND PROCEDURE:	
General Counsel	

{00016362;1}

TWENTY-EIGHTH SUPPLEMENTAL INDENTURE

between

EAST BAY MUNICIPAL UTILITY DISTRICT

and

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A. as Successor Trustee

Dated as of June 1, 2017

(Supplemental to the Water System Subordinated Revenue Bond Indenture dated as of April 1, 1990)

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Twenty-Eighth Supplemental Indenture
(Supplemental to the Water System
Subordinated Revenue Bond Indenture dated
as of April 1, 1990)
Authorizing the Issuance of

\$_____ Aggregate Principal Amount of
East Bay Municipal Utility District

Water System Revenue Bonds, Series 2017A (Green Bonds)
and \$_____ Aggregate Principal Amount of
East Bay Municipal Utility District

Water System Revenue/Refunding Bonds, Series 2017B

This Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017 (the "Twenty-Eighth Supplemental Indenture"), between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee");

WITNESETH:

WHEREAS, this Twenty-Eighth Supplemental Indenture is supplemental to the Water System Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented (the "Indenture"), between the District and the Trustee, providing for the issuance of bonds initially designated as "Water System Subordinated Revenue Bonds" and subsequent to the execution and delivery of the Eighteenth Supplemental Indenture designated as "Water System Revenue Bonds" (the "Bonds");

WHEREAS, in accordance with the Indenture there has been issued, among other Bonds, (i) \$54,790,000 aggregate principal amount of Water System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds"), pursuant to the Twelfth Supplemental Indenture, dated as of May 1, 2007, between the District and the Trustee, of which \$13,080,000 principal amount is outstanding as of the date hereof; and (ii) \$192,830,000 aggregate principal amount of Water System Subordinated Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds"), pursuant to the Sixteenth Supplemental Indenture, dated as of February 1, 2010, between the District and the Trustee, of which \$180,945,000 principal amount is outstanding as of the date hereof; {reference other refunded bonds if additional candidates added};

WHEREAS, the Indenture provides that the District may issue additional Bonds as well as refunding Bonds from time to time as authorized by a Supplemental Indenture;

WHEREAS, the District has previously authorized the issuance of up to \$1.1 billion of water system revenue bonds, pursuant to Resolution No. 33606-07 adopted by the Board on June 12, 2007, and, as of the date hereof, \$757,720,000 of such water system revenue bonds have been issued under the authority of Resolution No. 33606-07;

WHEREAS, the District has determined to issue its Water System Revenue Bonds, Series 2017A (Green Bonds) in the aggregate principal amount of \$_____ (the "Series 2017A").

Bonds") and its Water System Revenue/Refunding Bonds, Series 2017B in the aggregate principal amount of \$______ (the "Series 2017B Bonds") pursuant to this Twenty-Eighth Supplemental Indenture for the purpose of providing moneys (i) to finance and/or reimburse the District for certain costs of improvements to the Water System of the District, (ii) to refund all of the outstanding Series 2007B Bonds, and \$______ principal amount of the outstanding Series 2010A Bonds [reference to additional refunded bonds added, if any], and (iii) to pay Costs of Issuance of the Series 2017A Bonds and the Series 2017B Bonds; and

WHEREAS, in the aggregate \$_____ principal amount of the Series 2017A Bonds and Series 2017B Bonds is being issued for the purpose of financing improvements to the Water System and the allocable portion of the funding of Costs of Issuance in connection therewith, and such \$_____ aggregate principal amount is being issued under and pursuant to the authority of Resolution No. 33606-07; and

WHEREAS, the Indenture creates a valid and binding pledge and assignment of and security interest in the Subordinated Water Revenues and all amounts held by the Trustee under the Indenture (except for amounts held in the Rebate Fund) for the payment of the Bonds as and to the extent provided therein in accordance with the terms thereof without the need for any physical delivery, recordation, filing or further act, in accordance with Section 5451 of the Government Code of the State of California;

NOW, THEREFORE, the parties hereto agree, as follows:

ARTICLE XLIII

SERIES 2017A AND SERIES 2017B BONDS

SECTION 43.01. <u>Definitions</u>. The terms defined in this Section shall, for all purposes of this Twenty-Eighth Supplemental Indenture and of any certificate, opinion or other document herein mentioned, have the meanings herein specified, to be equally applicable to both the singular and plural forms of any of the terms herein defined. Terms defined in the Indenture not otherwise defined herein shall have the meanings specified therein.

"Beneficial Owner" means any Person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Series 2017A Bond or Series 2017B Bond (including any Person holding a Series 2017A Bond or Series 2017B Bond through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Series 2017A Bond or Series 2017B Bond for federal income tax purposes.

"Book-Entry System" means the system maintained by the Securities Depository and described in Section 43.03 hereof.

"Closing Date" means the date of delivery of the Series 2017A Bonds and Series 2017B Bonds to the Representative of the Underwriters, against payment therefor, such date being June ___, 2017.

"Continuing Disclosure Agreement" means any continuing disclosure agreement entered into by the District and the Trustee, as dissemination agent, in connection with the Series 2017A

Bonds and/or Series 2017B Bonds in order to comply with the continuing disclosure requirements promulgated under S.E.C. Rule 15c2-12.

"DTC" means The Depository Trust Company, New York, New York, and its successors and assigns.

"Representation Letter" means the Letter of Representations from the District to DTC relating to the Book-Entry System for the Series 2017A Bonds and the Series 2017B Bonds.

"Representative" means Barclays Capital Inc., as representative of the Underwriters of the Series 2017A Bonds and the Series 2017B Bonds.

"Securities Depository" means DTC or, if applicable, any successor securities depository appointed pursuant to Section 43.03 hereof.

"Securities Depository Participant" means any broker-dealer, bank or other financial institution for which a Securities Depository holds Series 2017A Bonds and/or Series 2017B Bonds as Securities Depository from time to time.

"Series 2007B Escrow Agreement" means the Escrow Agreement relating to the defeasance of all of the East Bay Municipal Utility District Water System Subordinated Revenue Refunding Bonds, Series 2007B, dated as of June 1, 2017, by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent and as trustee for the Series 2007B Bonds.

"Series 2010A Escrow Agreement" means the Escrow Agreement relating to the defeasance of a portion of the East Bay Municipal Utility District Water System Subordinated Revenue/Refunding Bonds, Series 2010A, dated as of June 1, 2017, by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent and as trustee for the Series 2010A Bonds.

"Series 2017A Bonds" means the East Bay Municipal Utility District Water System Revenue Bonds, Series 2017A (Green Bonds).

"Series 2017B Bonds" means the East Bay Municipal Utility District Water System Revenue/Refunding Bonds, Series 2017B.

"Series 2017 Water System Fund" means the fund by that name established pursuant to Section 43.13 hereof.

SECTION 43.02. Authorization.

(A) <u>Designation of Bonds</u>. A thirty-third and thirty-fourth Series of Bonds to be issued under the Indenture is hereby created. Such Series of Bonds shall be known as (i) the "East Bay Municipal Utility District Water System Revenue Bonds, Series 2017A (Green Bonds)" (herein referred to as the "Series 2017A Bonds") and (ii) the "East Bay Municipal Utility District Water System Revenue/Refunding Bonds, Series 2017B" (herein referred to as the "Series 2017B Bonds"). The Series 2017A Bonds shall be issued in the aggregate principal

amount of \$_____. The Series 2017B Bonds shall be issued in the aggregate principal amount of \$_____.

The Series 2017A Bonds and Series 2017B Bonds shall be issued in accordance with the Act and pursuant to Resolution No. _____ adopted by the Board on [April 25], 2017, and this Twenty-Eighth Supplemental Indenture. The Series 2017A Bonds shall be issued for the purpose of (i) financing certain costs (including by reimbursement to the District) of improvements to the Water System of the District, and (ii) paying Costs of Issuance in connection with the delivery of the Series 2017A Bonds. The Series 2017B Bonds shall be issued for the purpose of (i) financing certain costs (including by reimbursement to the District) of improvements to the Water System of the District, (ii) refunding all of the outstanding Series 2007B Bonds and a portion of the outstanding Series 2010A Bonds {reference to additional refunded bonds added, if any} and (iii) paying Costs of Issuance in connection with the delivery of the Series 2017B Bonds.

The Series 2017A Bonds and Series 2017B Bonds shall be Current Interest Indebtedness.

(B) Registered Form. The Series 2017A Bonds and Series 2017B Bonds shall be issued in fully registered form and shall be initially registered in the name of "Cede & Co.," as nominee of DTC in accordance with Section 43.03 hereof. Each of the Series 2017A Bonds and Series 2017B Bonds shall be evidenced by one bond maturing on each of the maturity dates of each such Series as set forth in Section 43.02(C) hereof. Each Series 2017A Bond and Series 2017B Bond may be assigned by the Trustee a distinctive number or letter and number, and a record of the same shall be maintained by the Trustee. Registered ownership of the Series 2017A Bonds and Series 2017B Bonds, or any portion thereof, may not thereafter be transferred except as set forth in Section 43.03 hereof.

(C) Maturities; Interest Rates; Denominations.

(1) <u>Series 2017A Bonds</u>. The Series 2017A Bonds shall be dated the date of delivery thereof, shall be issued in denominations of \$5,000 principal amount or any integral multiple thereof, and shall bear interest from the date thereof at the following rates per annum, and shall mature on June 1 in the following years in the following amounts:

28051240.6 4

Series 2017A Bonds

Maturity		
Date	Principal	Interest
(June 1)	Amount	Rate

(2) <u>Series 2017B Bonds</u>. The Series 2017B Bonds shall be dated the date of delivery thereof, shall be issued in denominations of \$5,000 principal amount or any integral multiple thereof, and shall bear interest from the date thereof at the following rates per annum, and shall mature on June 1 in the following years in the following amounts:

Series 2017B Bonds

Maturity		
Date	Principal	Interest
(June 1)	Amount	Rate

Interest on the Series 2017A Bonds and Series 2017B Bonds shall be payable semiannually on June 1 and December 1 of each year, commencing on December 1, 2017, by check mailed by first-class mail on each interest payment date to the Owners thereof as of the close of business on the fifteenth (15th) day of the calendar month immediately preceding such interest payment date (each, a "record date"), except that in the case of an Owner of \$1,000,000 or more in aggregate principal amount of Series 2017A Bonds or Series 2017B Bonds, upon written request of such Owner to the Trustee received at least ten (10) days prior to the record

date for the payment of interest, specifying the account or accounts to which such payment shall be made (which request shall remain in effect until revoked by such Owner in a subsequent writing delivered to the Trustee), such interest shall be paid in immediately available funds by wire transfer to such account or accounts on the following interest payment date. Interest on the Series 2017A Bonds and Series 2017B Bonds shall be computed on the basis of a 360-day year of twelve 30-day months. The principal of and premium, if any, on the Series 2017A Bonds and the Series 2017B Bonds are payable when due upon presentation thereof at the corporate trust office of the Trustee in San Francisco, California, or at such other place as designated by the Trustee, in lawful money of the United States of America.

So long as the Series 2017A Bonds and Series 2017B Bonds are maintained in book-entry form, payments of principal, premium, if any, and interest shall be made by the Trustee to the Securities Depository by wire transfer in accordance with mutually satisfactory arrangements between the Trustee and the Securities Depository.

The Trustee shall provide CUSIP number identification, with appropriate dollar amounts for each CUSIP number, on all redemption payments and interest payments, whether by check or by wire transfer.

SECTION 43.03. <u>Book-Entry System</u>. The Series 2017A Bonds and Series 2017B Bonds shall be initially issued registered in the name of "Cede & Co.," as nominee for DTC and registered Owner thereof, and held in the custody of the Securities Depository. A single certificate will be issued and delivered to the Securities Depository for each maturity of the Series 2017A Bonds and for each maturity of the Series 2017B Bonds in a denomination corresponding to the total principal amount maturing of each such Series on each of the maturity dates, and the Beneficial Owners will not receive physical delivery of bond certificates for the Series 2017A Bonds or Series 2017B Bonds except as provided herein. For so long as the Securities Depository shall continue to serve as securities depository for the Series 2017A Bonds and Series 2017B Bonds as provided herein, all transfers of beneficial ownership interests will be made by book-entry only, and no investor or other party purchasing, selling or otherwise transferring beneficial ownership of Series 2017A Bonds or Series 2017B Bonds will receive, hold or deliver any Series 2017A Bond certificate or Series 2017B Bond certificate.

At the written direction of the District, with notice to the Trustee, but without the consent of the Owners of the Series 2017A Bonds or Series 2017B Bonds or the Trustee, the District, may appoint a successor Securities Depository and enter into an agreement with the successor Securities Depository, to establish procedures with respect to a Book-Entry System for the Series 2017A Bonds and Series 2017B Bonds not inconsistent with the provisions of the Indenture. Any successor Securities Depository shall be a "clearing agency" registered under Section 17A of the Securities Exchange Act of 1934, as amended.

The District and the Trustee may rely conclusively upon (i) a certificate of the Securities Depository as to the identity of the Securities Depository Participants in the Book-Entry System with respect to the Series 2017A Bonds and Series 2017B Bonds and (ii) a certificate of any such Securities Depository Participant as to the identity of, and the respective principal amount of the Series 2017A Bonds and/or Series 2017B Bonds beneficially owned by, the Beneficial Owners.

Whenever, during the term of the Series 2017A Bonds and Series 2017B Bonds, the beneficial ownership thereof is determined by a book-entry at the Securities Depository, the requirements in the Indenture of holding, delivering or transferring the Series 2017A Bonds or Series 2017B Bonds shall be deemed modified to require the appropriate person to meet the requirements of the Securities Depository as to registering or transferring the book-entry to produce the same effect. Any provision hereof permitting or requiring delivery of the Series 2017A Bonds or Series 2017B Bonds shall, while the Series 2017A Bonds and Series 2017B Bonds are in the Book-Entry System, be satisfied by the notation on the books of the Securities Depository in accordance with applicable state law.

Except as otherwise specifically provided in the Indenture and the respective Series 2017A Bonds and Series 2017B Bonds with respect to the rights of Securities Depository Participants and Beneficial Owners, when a Book-Entry System is in effect, the District and the Trustee may treat the Securities Depository (or its nominee) as the sole and exclusive Owner of the Series 2017A Bonds and Series 2017B Bonds registered in its name for the purposes of payment of the principal of and interest on the Series 2017A Bonds and Series 2017B Bonds or a portion thereof to be redeemed or purchased (if applicable), and of giving any notice permitted or required to be given to the Owners of Series 2017A Bonds or Series 2017B Bonds under the Indenture, and neither the District nor the Trustee shall be affected by any notice to the contrary. Neither the District nor the Trustee will have any responsibility or obligation to the Securities Depository, any Securities Depository Participant, any Beneficial Owner or any other Person which is not shown on the registration books required to be maintained by the Trustee, with respect to: (i) the accuracy of any records maintained by the Securities Depository or any Securities Depository Participant; (ii) the payment by the Securities Depository or by any Securities Depository Participant of any amount due to any Beneficial Owner in respect of the principal amount or redemption or purchase price (if applicable) of, or interest on, any Series 2017A Bonds or Series 2017B Bonds; (iii) the delivery of any notice by the Securities Depository or any Securities Depository Participant; (iv) the selection of the Beneficial Owners to receive payment in the event of any partial redemption of the Series 2017A Bonds or Series 2017B Bonds; or (v) any other action taken by the Securities Depository or any Securities Depository Participant. The Trustee shall pay all principal of and interest on the Series 2017A Bonds and Series 2017B Bonds registered in the name of Cede & Co. only to or "upon the order of" the Securities Depository, and all such payments shall be valid and effective to fully satisfy and discharge the District's obligations with respect to the principal of and interest on such Series 2017A Bonds and Series 2017B Bonds to the extent of the sum or sums so paid.

The Book-Entry System may be discontinued by the Trustee and the District, at the direction and expense of the District, and the District and the Trustee will cause the delivery of Series 2017A Bond certificates and Series 2017B Bond certificates to the respective Beneficial Owners of the Series 2017A Bonds and Series 2017B Bonds and registered in the names of such Beneficial Owners as shall be specified to the Trustee by the Securities Depository in writing, under the following circumstances:

(1) The Securities Depository determines to discontinue providing its service with respect to the Series 2017A Bonds and Series 2017B Bonds and no successor Securities Depository is appointed as described above. Such a determination may be made at any time by giving thirty (30) days' notice to the District and the Trustee and discharging its responsibilities with respect thereto under applicable law; or

(2) The District determines not to continue the Book-Entry System through a Securities Depository, upon not less than forty-five (45) days' prior written notice to the Trustee.

When the Book-Entry System is not in effect, all references herein to the Securities Depository shall be of no further force or effect.

So long as any Series 2017A Bond and/or Series 2017B Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of and interest on such Series 2017A Bond or Series 2017B Bond and all notices with respect to such Series 2017A Bond or Series 2017B Bond shall be made and given, respectively, in the manner provided in the Representation Letter.

In the event of a redemption or any other transaction necessitating a reduction in aggregate principal amount of Series 2017A Bonds or Series 2017B Bonds Outstanding, DTC in its discretion: (a) may request the District and the Trustee to issue and authenticate a new Series 2017A Bond certificate or new Series 2017B Bond certificate, as applicable; or (b) shall make an appropriate notation on the Series 2017A Bond certificate or Series 2017B Bond certificate, as applicable, indicating the date and amounts of such reduction in principal, except in the case of final maturity, in which case the certificate must be presented to the Trustee prior to payment.

SECTION 43.04. Redemption of Series 2017A and Series 2017B Bonds.

(A) Series 2017A Bonds.

- (1) Optional Redemption. The Series 2017A Bonds maturing on or before June 1, 20_ are not subject to optional redemption prior to maturity. The Series 2017A Bonds maturing on and after June 1, 20_ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20_, at a redemption price equal to the principal amount of Series 2017A Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.
- (2) [Mandatory Sinking Account Redemption The Series 2017A Bonds maturing on June 1, 20_ are also subject to redemption prior to maturity, in part, by lot, from Mandatory Sinking Account Payments required by and as specified in Section 43.09, commencing on June 1, 20_, at the principal amount thereof plus accrued interest thereon to the date fixed for redemption, without premium.]

(B) <u>Series 2017B Bonds</u>.

(1) Optional Redemption. The Series 2017B Bonds maturing on or before June 1, 20__ are not subject to optional redemption prior to maturity. The Series 2017B Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20__, at a redemption price equal to the principal amount of Series 2017B Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

(2) [Mandatory Sinking Account Redemption The Series 2017B Bonds maturing on June 1, 20_ are also subject to redemption prior to maturity, in part, by lot, from Mandatory Sinking Account Payments required by and as specified in Section 43.09, commencing on June 1, 20_, at the principal amount thereof plus accrued interest thereon to the date fixed for redemption, without premium.]

SECTION 43.05. Selection of Series 2017A and Series 2017B Bonds for Redemption. Whenever provision is made in this Twenty-Eighth Supplemental Indenture for the redemption of less than all of the Series 2017A Bonds or Series 2017B Bonds, the maturities of the Series 2017A Bonds and/or Series 2017B Bonds to be redeemed shall be specified by the District. In the case of partial redemption of less than all of the Series 2017A Bonds or Series 2017B Bonds of any maturity, the Trustee shall select the Series 2017A Bonds or Series 2017B Bonds of such maturity to be redeemed, from all Series 2017A Bonds or Series 2017B Bonds of the respective maturity not previously called for redemption, in authorized denominations, by lot, in any manner which the Trustee in its sole discretion shall deem appropriate and fair. The Trustee shall promptly notify the District in writing of the Series 2017A Bonds and/or Series 2017B Bonds so selected for redemption.

SECTION 43.06. Notice of Redemption. The District shall notify the Trustee at least twenty-five (25) days prior to the redemption date for any Series 2017A Bonds or Series 2017B Bonds pursuant to Section 43.04(A) (or such shorter time as may be agreed to by the Trustee). Notice of redemption shall be given by the Trustee, not less than twenty (20) nor more than sixty (60) days prior to the redemption date, (i) to the respective Owners of any Series 2017A Bonds or Series 2017B Bonds designated for redemption at their addresses appearing on the bond registration books of the Trustee by first-class mail, (ii) to the Securities Depository by electronic means of communication or by first-class mail, and (iii) to the Electronic Municipal Market Access System (referred to as "EMMA"), a facility of the Municipal Securities Rulemaking Board, at www.emma.msrb.org, by electronic means of communication, or to such other securities depositories or information services as the District may designate in a Request of the District delivered to the Trustee. Notice of redemption shall be given in the form and otherwise in accordance with the terms of the Indenture and this Twenty-Eighth Supplemental Indenture.

In the event of an optional redemption of Series 2017A Bonds or Series 2017B Bonds, if the District shall not have deposited or otherwise made available to the Trustee the money required for the payment of the redemption price of the Series 2017A Bonds or Series 2017B Bonds to be redeemed at the time of the mailing of notice of redemption, such notice of redemption shall state that the redemption is expressly conditioned upon the timely deposit of sufficient funds therefor with the Trustee.

SECTION 43.07. <u>Partial Redemption of Series 2017A and Series 2017B Bonds</u>. Upon surrender of any Series 2017A Bond or Series 2017B Bond redeemed in part only, the District shall execute and the Trustee shall authenticate and deliver to the Owner thereof, at the expense of the District, a new Series 2017A Bond or Series 2017B Bond of authorized denominations, and of the same Series, maturity and interest rate, equal in aggregate principal amount to the unredeemed portion of the Series 2017A Bond or Series 2017B Bond surrendered.

SECTION 43.08. <u>Effect of Redemption</u>. If notice of redemption has been duly given pursuant to Section 43.06, and moneys for payment of the Redemption Price of, together with

interest accrued to the redemption date on, the Series 2017A Bonds and/or Series 2017B Bonds (or portions thereof) so called for redemption is held by the Trustee, on the redemption date designated in such notice, the Series 2017A Bonds and/or Series 2017B Bonds (or portions thereof) so called for redemption shall become due and payable at the Redemption Price specified in such notice together with interest accrued thereon to the date fixed for redemption, interest on the Series 2017A Bonds and/or Series 2017B Bonds so called for redemption shall cease to accrue, the Series 2017A Bonds and/or Series 2017B Bonds (or portions thereof) shall cease to be entitled to any benefit or security under the Indenture, and the respective Owners of such Series 2017A Bonds and/or Series 2017B Bonds shall have no rights in respect thereof except to receive payment of the Redemption Price and accrued interest.

All Series 2017A Bonds and/or Series 2017B Bonds redeemed pursuant to the provisions of this Article shall be cancelled upon surrender thereof and destroyed.

SECTION 43.09. [Series 2017A and Series 2017B Sinking Accounts.

(A) <u>Series 2017A Sinking Account</u>. An Account is hereby established within the Principal Fund created by Section 5.02 of the Indenture to be designated the "Series 2017A Sinking Account." On each Business Day prior to the following payment dates, the District shall transfer from the Principal Fund to the Series 2017A Sinking Account an amount equal to the payment due on such date as set forth below:

Term Series 2017A Bonds Due June 1, 20__

Mandatory	
Sinking Account	Mandatory
Payment Dates	Sinking Account
(June 1)	Payments

Upon an optional redemption of a portion of any Term Series 2017A Bonds pursuant to Section 43.04(A), the District shall provide the Trustee with a revised schedule of the foregoing Mandatory Sinking Account Payments which shall provide for a reduction in the amount of one or more of the Mandatory Sinking Account Payments coming due on such Term Series 2017A Bond after such redemption as specified by the District in such schedule to reflect such redeemed portion.

Moneys in the Series 2017A Sinking Account shall be applied as provided in Section 5.02(A) and Section 5.04(B) of the Indenture.]

[†] Final Maturity.

(B) [Series 2017B Sinking Account. An Account is hereby established within the Principal Fund created by Section 5.02 of the Indenture to be designated the "Series 2017B Sinking Account." On each Business Day prior to the following payment dates, the District shall transfer from the Principal Fund to the Series 2017B Sinking Account an amount equal to the payment due on such date as set forth below:

Term Series 2017B Bonds Due June 1, 20__

Mandatory	
Sinking Account	Mandatory
Payment Dates	Sinking Account
(June 1)	Payments

Upon an optional redemption of a portion of any Term Series 2017B Bonds pursuant to Section 43.04(B), the District shall provide the Trustee with a revised schedule of the foregoing Mandatory Sinking Account Payments which shall provide for a reduction in the amount of one or more of the Mandatory Sinking Account Payments coming due on such Term Series 2017B Bond after such redemption as specified by the District in such schedule to reflect such redeemed portion.

Moneys in the Series 2017B Sinking Account shall be applied as provided in Section 5.02(A) and Section 5.04(B) of the Indenture.]

SECTION 43.10. Form of Series 2017A and Series 2017B Bonds. The Series 2017A Bonds and Series 2017B Bonds and the certificate of authentication and registration to be executed thereon shall be in substantially the form set forth as Exhibit A hereto. The Series 2017A Bond and Series 2017B Bond letters and numbers, maturity dates, principal amounts and interest rates shall be inserted therein in conformity with Section 43.02.

SECTION 43.11. <u>Issuance of Series 2017A and Series 2017B Bonds</u>. Upon the execution and delivery of this Twenty-Eighth Supplemental Indenture, the District shall execute and the Trustee shall authenticate and deliver (i) the Series 2017A Bonds in the aggregate principal amount of \$_____ and (ii) the Series 2017B Bonds in the aggregate principal amount of \$_____, on the Closing Date therefor upon an Order of the District.

SECTION 43.12. Application of Proceeds of Series 2017A and Series 2017B Bonds.

(A) <u>Series 2017A Bonds</u>. The net proceeds of the sale of the Series 2017A Bonds in the amount of \$_____ (representing the \$____ aggregate principal amount of the Series 2017A Bonds [plus][less] \$____ [net] original issue [premium][discount], less \$____ Underwriters' discount) less the Good Faith Deposit amount of \$____ previously received by

[†] Final Maturity.

the District, shall be received by the Trustee on behalf of the District in trust and shall thereupon be transferred by the Trustee as follows:

(i) \$ of the proceeds from the sale of the Series 2017A Bonds, shall be transferred to the District and the District shall deposit such amount, together with the \$ previously delivered to the District by the Representative as the Good Faith Deposit for the Series 2017 Bonds, or a total of \$, in the Series 2017 Water System Fund (of which \$ shall be deposited in the Series 2017A (Green Bonds) Construction Account therein and \$ shall be deposited in the Costs of Issuance Account therein) to be applied in accordance with Section 43.13.
(B) <u>Series 2017B Bonds</u> . The net proceeds of the sale of the Series 2017B Bonds in the amount of \$ (representing the \$ aggregate principal amount of the Series 2017B Bonds [plus][less] \$ [net] original issue [premium][discount], less \$ Underwriters' discount), together with \$ to be released from the Series 2010A Bond Reserve Fund relating to the Series 2010A Bonds to be refunded [and \$ contributed by the District, or a total of \$,] shall be received by the Trustee on behalf of the District in trust and shall thereupon be transferred by the Trustee as follows:
(i) \$ of the proceeds from the sale of the Series 2017B Bonds, [together with \$ of the amounts contributed by the District, or a total of \$,] shall be transferred to The Bank of New York Mellon Trust Company, N.A., as escrow agent pursuant to the Series 2007B Escrow Agreement for deposit in the escrow fund created pursuant to the Series 2007B Escrow Agreement;
(ii) \$ of the proceeds from the sale of the Series 2017B Bonds, together with the \$ to be released from the Series 2010A Bond Reserve Fund relating to the Series 2010A Bonds to be refunded [and \$ of the amounts contributed by the District, or a total of \$,] shall be transferred to The Bank of New York Mellon Trust Company, N.A., as escrow agent pursuant to the Series 2010A Escrow Agreement for deposit in the escrow fund created pursuant to the Series 2010A Escrow Agreement;
(iii) \$ of proceeds from the sale of the Series 2017B Bonds, shall be transferred to the District and the District shall deposit such amount in the Series 2017 Water System Fund (of which \$ shall be deposited in the Series 2017B Construction Account therein; and \$ shall be deposited in the Costs of Issuance Account therein) to be applied in accordance with Section 43.13.

SECTION 43.13. Establishment and Application of Series 2017 Water System Fund. The District shall establish, maintain and hold in trust a separate fund designated as the "Series 2017 Water System Fund," with three accounts therein designated as the "Series 2017A (Green Bonds) Construction Account," the "Series 2017B Construction Account," and the "Costs of Issuance Account." The moneys on deposit in the Series 2017A (Green Bonds) Construction Account shall be used and withdrawn by the District to pay or reimburse the District for the costs of construction, reconstruction, replacement, acquisition or improvement of any facility or facilities necessary or convenient for the storage, transmission or distribution of water; or incidental to, or in connection with, the operation of the Water System which the District has

determined to be a project appropriate for "green bond" funding, or to pay or reimburse the District for interest on the Series 2017A Bonds during the construction period for the improvements to the Water System funded by the Series 2017A Bonds. The moneys on deposit in the Series 2017B Construction Account shall be used and withdrawn by the District to pay or reimburse the District for the costs of construction, reconstruction, replacement, acquisition or improvement of any facility or facilities necessary or convenient for the storage, transmission or distribution of water; or incidental to, or in connection with, the operation of the Water System, or to pay or reimburse the District for interest on the Series 2017B Bonds during the construction period for the improvements to the Water System funded by the Series 2017B Bonds. The moneys on deposit in the Costs of Issuance Account shall be used and withdrawn by the District to pay Costs of Issuance of the Series 2017A Bonds and Series 2017B Bonds. Excess amounts, if any, remaining in the Costs of Issuance Account after payment in full of all Costs of Issuance of the Series 2017A Bonds and Series 2017B Bonds shall be transferred to the Series 2017B Construction Account to be applied to the purposes thereof. Moneys on deposit in the Series 2017 Water System Fund may be invested in (i) Investment Securities, (ii) investment agreements with a domestic or foreign bank or corporation (other than a life or property casualty insurance company) the long-term debt of which, or, in the case of a guaranteed corporation the long-term debt, or, in the case of a monoline financial guaranty insurance company, claims paying ability, of the guarantor, is rated on the date of execution of such investment agreement not lower than "Aa2" by Moody's (if Moody's is then rating any of the District's Outstanding Bonds) and "AA" by Standard & Poor's (if Standard & Poor's is then rating any of the District's Outstanding Bonds), or (iii) the Local Agency Investment Fund (as that term is defined in Section 16429.1 of the California Government Code, as such section may be amended or recodified from time to time), and with a term so as to provide moneys when needed for payments to be made therefrom. Interest, profit or other income derived from the investment of moneys held in the Series 2017 Water System Fund shall be credited to such Fund. Interest, profit or other income derived from the investment of moneys held in the Series 2017 Water System Fund may also be transferred to the Trustee for deposit in the Rebate Fund in an amount determined by the District to be required.

SECTION 43.14. <u>Continuing Disclosure</u>. The District and the Trustee hereby covenant and agree that they will comply with and carry out all of their respective obligations under the Continuing Disclosure Agreement. Notwithstanding any other provision of this Indenture, failure of the District or the Trustee to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, any Series 2017A Bondholder or Series 2017B Bondholder or Beneficial Owner or the Trustee may (and, at the request of any Participating Underwriter (as defined in the Continuing Disclosure Agreement) or the Owners of at least 25% of the aggregate principal amount of Outstanding Series 2017A Bonds and Series 2017B Bonds and upon provision of indemnification satisfactory to the Trustee, shall) take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District or the Trustee, as the case may be, to comply with its obligations under this Section 43.14.

SECTION 43.15. Terms of Series 2017A Bonds and Series 2017B Bonds Subject to the Indenture. Except as in this Twenty-Eighth Supplemental Indenture expressly provided, every term and condition contained in the Indenture shall apply to this Twenty-Eighth Supplemental Indenture and to the respective Series 2017A Bonds and Series 2017B Bonds with the same force and effect as if the same were herein set forth at length, with such omissions,

variations and modifications thereof as may be appropriate to make the same conform to this Twenty-Eighth Supplemental Indenture.

This Twenty-Eighth Supplemental Indenture and all the terms and provisions herein contained shall form part of the Indenture as fully and with the same effect as if all such terms and provisions had been set forth in the Indenture. The Indenture is hereby ratified and confirmed and shall continue in full force and effect in accordance with the terms and provisions thereof, as supplemented and amended hereby.

SECTION 43.16. <u>Effective Date of Twenty-Eighth Supplemental Indenture</u>. This Twenty-Eighth Supplemental Indenture shall take effect upon its execution and delivery.

SECTION 43.17. <u>Execution in Counterparts</u>. This Twenty-Eighth Supplemental Indenture may be executed in several counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto have executed the Twenty-Eighth Supplemental Indenture by their officers thereunto duly authorized as of the day and year first written above.

	EAST BAY MUNICIPAL UTILITY DISTRICT
	By:Sophia D. Skoda Director of Finance
ATTEST:	
By: Rischa S. Cole Secretary of the District	_
	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee
	By: Daniel Marroquin Vice President

EXHIBIT A

(FORM OF SERIES 2017A AND SERIES 2017B BONDS)

No		\$
	EAST BAY MUNICIPAL UTILITY DISTRICT	

EAST BAY MUNICIPAL UTILITY DISTRICT (ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA) WATER SYSTEM [REVENUE][REVENUE/REFUNDING] BOND, SERIES 2017[A (GREEN BONDS)][B]

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the District or its agent for registration of transfer, exchange, or payment, and any certificate issued is registered in the name of Cede & Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

Maturity Date	<u>Dated Date</u>	Interest Rate	<u>CUSIP</u>
June 1,	June, 2017	%	271014

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT:

EAST BAY MUNICIPAL UTILITY DISTRICT, a municipal utility district duly organized and existing under and pursuant to the laws of the State of California (the "District"), for value received, hereby promises to pay (but only out of the Subordinated Water Revenues and funds hereinafter referred to) to the registered owner named above or registered assigns, on the maturity date specified above (subject to any right of prior redemption or payment as provided in the hereinafter mentioned Indenture), the principal amount specified above together with interest thereon from its Dated Date until the principal hereof shall have been paid, at the interest rate per annum specified above, payable on December 1, 2017, and semiannually thereafter on June 1 and December 1 in each year. Interest hereon is payable in lawful money of the United States of America by (except as otherwise provided in the hereinafter mentioned Indenture) check mailed by first-class mail on each interest payment date to the registered owner as of the close of business on the 15th day of the calendar month immediately preceding such interest payment date (each, a "record date"), except that in the case of an Owner of \$1,000,000 or more in aggregate principal amount of the hereinafter described Series 2017[A][B] Bonds, upon written request of such Owner to the Trustee received at least 10 days prior to the record date for the payment of interest, specifying the account or accounts to which such payment shall

be made (which request shall remain in effect until revoked by such Owner in a subsequent writing delivered to the Trustee), such interest shall be paid in immediately available funds by wire transfer to such account or accounts on the following interest payment date. The principal hereof and premium, if any, hereon are payable when due upon presentation hereof at the corporate trust office of The Bank of New York Mellon Trust Company, N.A., as successor trustee (together with any successor as trustee under said Indenture, the "Trustee"), in San Francisco, California, or at such other place as designated by the Trustee, in lawful money of the United States of America.

This Bond is one of a duly authorized issue (of the series and designation indicated on the face hereof) of Water System [Revenue][Revenue/Refunding] Bonds of the District issued pursuant to a Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented, between the Trustee and the District, providing for the issuance of said bonds (the "Bonds"). Said authorized issue of Bonds is not limited in aggregate principal amount, except as otherwise provided in said Water System Subordinated Revenue Bond Indenture, and consists or may consist of one or more series of varying denominations, dates, maturities, interest rates and other provisions, as in said Water System Subordinated Revenue Bond Indenture provided, all issued and to be issued pursuant to the provisions of the Act (as defined in the Water System Subordinated Revenue Bond Indenture). This Bond is issued pursuant to the Water System Subordinated Revenue Bond Indenture, as amended and supplemented, including as amended and supplemented by a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, between the Trustee and the District, authorizing the issuance of the series of bonds of which this Bond is one, such series being herein referred to as the "Series 2017[A (Green Bonds)][B] Bonds" (the Water System Subordinated Revenue Bond Indenture, as amended and supplemented, including as amended and supplemented by the Twenty-Eighth Supplemental Indenture, being herein collectively referred to as the "Indenture"). Reference is hereby made to the Indenture and to the Act for a description of the terms on which the Bonds are issued and to be issued, the provisions with regard to the nature and extent of the Subordinated Water Revenues (as that term is defined in the Indenture), and the rights of the registered owners of the Bonds; and all the terms of the Indenture and the Act are hereby incorporated herein and constitute a contract between the District and the registered owner from time to time of this Bond, and to all the provisions thereof the registered owner of this Bond, by its acceptance hereof, consents and agrees. Additional Bonds may be issued, and indebtedness may be incurred, on a parity with the Bonds of this authorized issue, but only subject to the conditions and limitations contained in the Indenture.

The Bonds and the interest thereon (to the extent set forth in the Indenture), together with the Parity Debt (as defined in the Indenture) issued by the District, and the interest thereon, are payable from, and are secured by a charge and lien on, the "Subordinated Water Revenues" (as more particularly defined in the Indenture). All of the Bonds and Parity Debt are equally secured by a pledge of, and charge and lien upon, all of the Subordinated Water Revenues, and the Subordinated Water Revenues constitute a trust fund for the security and payment of the interest on and principal of the Bonds; but nevertheless out of Subordinated Water Revenues certain amounts may be applied for other purposes as provided in the Indenture.

The Bonds are limited obligations of the District and are payable, both as to principal and interest, and as to any premiums upon the redemption thereof, out of the Subordinated Water

Revenues and certain funds held under the Indenture. The general fund of the District is not liable, and the credit or taxing power of the District is not pledged, for the payment of the Bonds or the interest thereon. The Bonds are not secured by a legal or equitable pledge of, or charge, lien or encumbrance upon, any of the property of the District or any of its income or receipts, except the Subordinated Water Revenues and the funds held under the Indenture. No registered owner of this Bond shall ever have the right to compel any exercise of the taxing power of the District to pay this Bond or the interest hereon.

The Series 2017[A][B] Bonds are being issued by means of a book-entry system with no physical distribution of bond certificates to be made except as provided in the Indenture. One bond certificate with respect to each date on which the Series 2017[A][B] Bonds are stated to mature, registered in the name of the Cede & Co, is being issued and required to be deposited with the Securities Depository and immobilized in its custody. The book-entry system will evidence positions held in the Series 2017[A][B] Bonds by the Securities Depository Participants, beneficial ownership of the Series 2017[A][B] Bonds in authorized denominations being evidenced in the records of such Securities Depository Participants. ownership shall be effected on the records of the Securities Depository and its Securities Depository Participants pursuant to rules and procedures established by the Securities Depository and its Securities Depository Participants. The District and the Trustee will recognize Cede & Co., while the registered owner of this Series 2017[A][B] Bond, as the owner of this Series 2017[A][B] Bond for all purposes, including (i) payments of principal of, and redemption premium, if any, and interest on this Series 2017[A][B] Bond and (ii) notices. Transfer of principal, interest and any redemption premium payments to Securities Depository Participants, and transfer of principal, interest and any redemption premium payments to beneficial owners of the Series 2017[A][B] Bonds by Securities Depository Participants will be the responsibility of such Securities Depository Participants and other nominees of such beneficial owners. The District will not be responsible or liable for such transfers of payments or for maintaining, supervising or reviewing the records maintained by the Securities Depository, Cede & Co., its Securities Depository Participants or persons acting through such Securities Depository Participants. While Cede & Co. is the registered owner of this Series 2017[A][B] Bond, notwithstanding any other provision hereof, payments of principal of, redemption premium, if any, and interest on this Series 2017[A][B] Bond shall be made in accordance with existing arrangements between the Trustee or its successors under the Indenture and the Securities Depository.

The Series 2017[A][B] Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20__, at a redemption price equal to the principal amount of Series 2017[A][B] Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

[The Series 2017[A][B] Bonds maturing on June 1, 20___ are also subject to redemption prior to maturity, in part, by lot, from Mandatory Sinking Account Payments required by and as specified in the Indenture, commencing on June 1, 20__, at the principal amount thereof plus accrued interest thereon to the date fixed for redemption, without premium.]

This Bond is transferable or exchangeable for other authorized denominations by the registered owner hereof, in person or by its attorney duly authorized in writing, at the corporate trust office of the Trustee in San Francisco, California, but only in the manner, subject to the limitations and upon payment of the charges provided in the Indenture, and upon surrender and cancellation of this Bond. Upon such transfer or exchange a new fully registered Bond or Bonds without coupons, of authorized denomination or denominations, of the same series, tenor, maturity and interest rate for the same aggregate principal amount will be issued to the registered owner in exchange hereof.

The District, the Trustee and any paying agent may deem and treat the registered owner hereof as the absolute owner hereof for all purposes, and the District, the Trustee and any paying agent shall not be affected by any notice to the contrary.

The rights and obligations of the District and of the registered owners of the Bonds may be modified or amended at any time in the manner, to the extent, and upon the terms provided in the Indenture, which provide, in certain circumstances, for modifications and amendments without the consent of or notice to the registered owners of the Bonds.

It is hereby certified and recited that any and all acts, conditions and things required to exist, to happen and to be performed, precedent to and in the incurring of the indebtedness evidenced by this Bond, and in the issuing of this Bond, do exist, have happened and have been performed in due time, form and manner, as required by the Constitution and statutes of the State of California, and that this Bond, together with all other indebtedness of the District pertaining to the Subordinated Water Revenues, is within every debt and other limit prescribed by the Constitution and the statutes of the State of California, and is not in excess of the amount of Bonds permitted to be issued under the Indenture or the Act.

This Bond shall not be entitled to any benefit under the Indenture, or become valid or obligatory for any purpose, until the certificate of authentication hereon endorsed shall have been signed by the Trustee.

Capitalized terms used but not defined herein shall have the meanings assigned to them in the Indenture.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, EAST BAY MUNICIPAL UTILITY DISTRICT has caused this Bond to be executed in its name and on its behalf by the President of the Board of Directors and attested by its Secretary, and this Bond to be dated as of the day of June, 2017.			
	EAST BAY MUNICIPAL UTILITY DISTRICT		
	By:President of the Board of Directors		
Attested:			
By: Secretary			

[FORM OF CERTIFICATE OF AUTHENTICATION AND REGISTRATION]

ribed in the within mentioned Indenture and registered on
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee
By:Authorized Officer

[FORM OF ASSIGNMENT]

For value received hereby sell, assign			
	the within Bond and hereby irrevocably constitute		
	attorney, to transfer the same on the books of the District at		
	power of substitution in the premises.		
	NOTE: The signature to this Assignment must correspond with the name on the face of the within registered bond in every particular, without alteration or enlargement or any change whatsoever.		
Dated:			
Signature Guaranteed by:	NOTE: Signature must be guaranteed by an eligible guarantor institution.		

A-7 28051240.6

EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM REVENUE BONDS, SERIES 2017A (GREEN BONDS)

and

EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017B

PURCHASE CONTRACT

June ___, 2017

Board of Directors East Bay Municipal Utility District 375 -11th Street Oakland, California 94607

Ladies and Gentlemen:

The undersigned Barclays Capital Inc., as representative (the "Representative") of itself, Goldman, Sachs & Co. and Merrill Lynch, Pierce, Fenner & Smith Incorporated (collectively, the "Underwriters"), hereby offers to enter into this Purchase Contract (the "Purchase Contract") with you, the East Bay Municipal Utility District (the "District"), which, upon the District's acceptance of this offer, will be binding upon the District and the Underwriters. This offer is made subject to acceptance by you prior to 5:00 p.m., California time, on the date hereof. If this offer is not so accepted, this offer will be subject to withdrawal by the Underwriters upon notice delivered to you at any time prior to acceptance. Upon acceptance, this Purchase Contract shall be in full force and effect in accordance with its terms and shall be binding upon the District and the Underwriters. All capitalized terms used herein not otherwise defined herein shall have the respective meanings ascribed thereto in the Official Statement (as hereinafter defined). The Representative has been duly authorized to execute this Purchase Contract and to take any action hereunder by and on behalf of the Underwriters.

The District acknowledges and agrees that (i) the purchase and sale of the Series 2017AB Bonds (defined below) pursuant to this Purchase Contract is an arm's-length commercial transaction between the District and the Underwriters, (ii) in connection therewith and with the discussions, undertakings and procedures leading up to the consummation of such transaction, the Underwriters are and have been acting solely as principals and are not acting as financial advisors or municipal advisors to or fiduciaries of the District, (iii) the Underwriters have not assumed an advisory or fiduciary responsibility in favor of the District with respect to the offering contemplated hereby or the discussions, undertakings and procedures leading thereto (irrespective of whether an Underwriter has provided other services or is currently providing other services to the District on other matters), (iv) the Underwriters have financial and other interests that differ from those of the District, and (v) the District has consulted its own legal, financial and other advisors to the extent it has deemed appropriate.

 Purchase, Sale and Delivery of the Series 2017AB Bonds
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- (a) Subject to the terms and conditions and in reliance upon the representations, warranties and agreements set forth herein, the Underwriters, jointly and severally, hereby agree to purchase and the District agrees to sell and deliver to the Underwriters all (but not less than all) of the East Bay Municipal Utility District Water System Revenue Bonds, Series 2017A (Green Bonds), and East Bay Municipal Utility District Water System Revenue/Refunding Bonds, Series 2017B, in the aggregate principal amount of \$______ (collectively, the "Series 2017AB Bonds").
- The Series 2017AB Bonds shall be issued pursuant to the Municipal Utility District (b) Act (constituting Division 6 of the Public Utilities Code of the State of California, as amended), the Revenue Bond Law of 1941 as made applicable by Article 6a of Chapter 6 of Division 6 of the Municipal Utility District Act, and, to the extent applicable to any Series 2017 AB Bonds issued for refunding purposes, Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California, as amended (collectively, the "Act") and the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Series 2017AB Bonds (collectively, the "Indenture"). The Series 2017AB Bonds shall be dated, shall mature, and shall be redeemable as provided in the Indenture and shall otherwise be as described in the Official Statement described below. The Series 2017AB Bonds shall be substantially in the form described in, and shall be issued and secured under the provisions of, the Indenture. The Series 2017AB Bonds shall be special obligations of the District payable from, and secured by a pledge of, the Subordinated Water Revenues of the District. The Series 2017AB Bonds shall be dated the Closing Date (defined below), shall bear interest payable June 1 and December 1 of each year, commencing on December 1, 2017, and shall mature on June 1 in each of the years, subject to earlier redemption, as set forth in Exhibit A.

The Series 2017AB Bonds are being issued for the purposes of (i) providing moneys to finance [(or refinance through the retirement of a portion of the District's outstanding Commercial Paper Notes (Water Series)] and/or reimburse the District for certain costs of improvements to the Water System of the District, (ii) refunding all of the District's outstanding Water System Subordinated Revenue Refunding Bonds, Series 2007B and \$_______ aggregate principal amount of the District's outstanding Water System Subordinated Revenue/Refunding Bonds, Series 2010A (collectively, the "Refunded Bonds"), and (iii) paying costs of issuance of the Series 2017AB Bonds.

(c) The aggregate purchase price for the Serie	s 2017AB Bonds shall b	oe \$
(consisting of the principal amount of the Series 2017A	B Bonds in the amount	of \$
plus [net] original issuance premium of \$	_ less \$	_ of Underwriters'
discount).		

If this offer shall be accepted by the District, then the Underwriters shall, immediately upon the acceptance by the District of this offer (or as soon thereafter as practicable), deliver or cause to be delivered to the District a wire or cashier's check made payable to the order of the District, in the amount of \$_____ [to be set at approximately 1% of principal amount] as security for the performance by the Underwriters of their obligations to accept delivery of and pay for the Series 2017AB Bonds on the Closing Date in accordance with the provisions of this Purchase Contract

(such deposit is herein referred to as the "Good Faith Deposit"). Such deposit shall not be expended by the District pending the Closing except as provided below. On the Closing Date, the Good Faith Deposit will be applied towards the purchase price stated above. If the District fails to deliver the Series 2017AB Bonds on the Closing Date, or if the conditions to the obligations of the Underwriters to purchase, accept delivery of and pay for the Series 2017AB Bonds as set forth in this Purchase Contract shall be unsatisfied (unless waived by the Underwriters), or if such obligations of the Underwriters shall be terminated by the Underwriters for any reason permitted by this Purchase Contract, this Purchase Contract shall terminate and the Good Faith Deposit with interest calculated at the prevailing 1-month LIBOR rate shall be immediately returned to the Underwriters. In the event that the Underwriters fail (other than for a reason permitted under this Purchase Contract) to purchase, accept delivery of and pay for the Series 2017AB Bonds on the Closing Date as herein provided, the Good Faith Deposit shall be retained by the District and shall constitute full liquidated damages for such failure and for any and all defaults hereunder on the part of the Underwriters, and shall constitute full release and discharge of all claims and rights hereunder of the District against the Underwriters with respect to such failure.

- (d) At 8:00 a.m., California time, on June ___, 2017, or at such other time or on such other date as the District and the Representative mutually agree upon (the "Closing Date"), the District will, subject to the terms and conditions hereof, cause to be delivered to the Underwriters, the Series 2017AB Bonds, in fully registered book-entry eligible form, through the facilities of The Depository Trust Company ("DTC") in New York, New York, duly executed, and at the offices of Curls Bartling P.C., Lake Merritt Plaza, 1999 Harrison Street, Suite 610, Oakland, California 94612, or at such other place as shall have been mutually agreed upon by the District and the Representative, the other documents mentioned herein. The Underwriters will accept such delivery and pay the purchase price of the Series 2017AB Bonds as set forth in subparagraph (c) above in immediately available funds (such delivery and payment being herein referred to as the "Closing") to the order of the Trustee in an amount equal to the purchase price.
- (e) The Underwriters agree to make a bona fide public offering of the Series 2017AB Bonds at the initial offering prices set forth in the Official Statement, which prices may be changed from time to time by the Underwriters after such initial offering.

2. Use and Preparation of Official Statement.

The District hereby ratifies, confirms and approves of the distribution and use by the Underwriters prior to the date hereof of the preliminary official statement dated May ___, 2017 relating to the Series 2017AB Bonds (the "Preliminary Official Statement") and the making available of the Preliminary Official Statement to investors prior to the date hereof on the internet. The District has deemed final the Preliminary Official Statement as of the date thereof for purposes of Rule 15c2-12 promulgated under the Securities Exchange Act of 1934 ("Rule 15c2-12"), except for information permitted to be omitted therefrom in accordance with paragraph (b)(1) of Rule 15c2-12. The District hereby agrees to deliver or cause to be delivered to the Underwriters, within seven (7) business days of the date hereof and, in any case, one business day prior to the Closing Date in order to permit the Underwriters to comply with Rule 15c2-12 and the applicable rules of the Municipal Securities Rulemaking Board (the "MSRB"), with respect to the distribution of the Official Statement, copies of the final Official Statement relating to the Series 2017AB Bonds, dated the date hereof, in the form of the Preliminary Official Statement, with such changes thereto, as may be approved by the District and the Representative (including the appendices thereto and any subsequent amendments or supplements as have been approved by the District and the Underwriters, the

"Official Statement"), in such quantity as the Underwriters shall reasonably request. The District hereby approves of the distribution and use by the Underwriters of the Official Statement in connection with the offer and sale of the Series 2017AB Bonds. The Representative hereby agrees to deliver a copy of the Official Statement to the MSRB through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at http://emma.msrb.org on or before the Closing Date.

3. Representations, Warranties and Agreements of the District.

The District hereby represents, warrants and agrees with the Underwriters as follows:

- (a) The District is, and will be on the Closing Date, a municipal utility district of the State of California duly organized and validly existing and operating pursuant to the laws of the State of California with full legal right, power and authority to issue the Series 2017AB Bonds pursuant to the Act and the Indenture, to execute and deliver the Official Statement and to enter into this Purchase Contract, each of the Escrow Agreements, dated June 1, 2017, by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent, relating to the Refunded Bonds (the "Escrow Agreements"), and the Continuing Disclosure Agreement, dated June ___, 2017, between the District and the Trustee (the "Disclosure Agreement" and together with the Indenture, the Escrow Agreements and this Purchase Contract, the "District Documents");
- (b) By all necessary official action of the District prior to or concurrently with the acceptance hereof, the District has duly authorized the issuance and sale of the Series 2017AB Bonds and has duly approved the distribution of the Preliminary Official Statement and the execution, delivery and distribution of the Official Statement, and has duly authorized and approved the execution and delivery of, and the performance by the District of the obligations on its part contained in the District Documents and the consummation by it of all other transactions contemplated by the Official Statement and the District Documents and the District is on the date hereof and will be on the Closing Date in compliance in all material respects with the provisions of the District Documents; the District Documents are or as of the Closing Date will be in full force and effect in substantially the form heretofore submitted to the Underwriters with only such changes as shall have been agreed to in writing by the Underwriters; and the District Documents constitute valid and legally binding agreements of the District enforceable against the District in accordance with their terms; provided, however, that the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights and to the limitations on legal remedies against public agencies in the State of California;
- (c) Except as otherwise disclosed in writing by the District to the Representative on or prior to the date hereof, the District is not in Material Breach or Default under any applicable constitutional provision, law or administrative regulation to which it is subject or any applicable judgment, decree, court order or consent decree or any loan agreement, indenture, bond, note, resolution, agreement or other instrument to which the District is a party or to which the District or any of its property or assets is otherwise subject, and no event has occurred and is continuing which with the passage of time or the giving of notice, or both, would constitute such a Material Breach or Default under any of the foregoing; and the issuance of the Series 2017AB Bonds, the execution and delivery of the District Documents and the Official Statement, and compliance with the provisions on the District's part contained herein and therein, will not constitute a Material Breach or Default under any law, administrative regulation, judgment, decree, court order, consent decree, loan agreement, indenture, bond, note, resolution, agreement or other instrument to which the District is a party or to

which the District or any of its property or assets is otherwise subject, nor will any such execution, delivery or compliance result in the creation or imposition of any lien, charge or other security interest or encumbrance of any nature whatsoever upon any of the properties or assets of the District under the terms of any such law, administrative regulation, judgment, decree, court order, consent decree, loan agreement, indenture, bond, note, resolution, agreement or other instrument, except as provided in the Indenture (for purposes of this Purchase Contract, the term "Material Breach or Default" means any breach or default which could have a material adverse effect on the business operations or financial condition of the District or its Water System);

- Except as disclosed in the Preliminary Official Statement and the Official Statement (d) or otherwise disclosed in writing by the District to the Representative on or prior to the date hereof, there is no action, suit, proceeding, inquiry or investigation (with service of process having been accomplished), at law or in equity, before or by any court, governmental agency, public board or body, pending or, to the best knowledge of the District after reasonable investigation, threatened against or affecting the District: (i) in any material respect affecting or contesting the existence of the District or the titles of its officers to their respective offices; or (ii) affecting or seeking to prohibit, restrain or enjoin the issuance, sale or delivery of the Series 2017AB Bonds; or (iii) contesting or affecting, as to the District, the validity or enforceability of the Series 2017AB Bonds or the District Documents; or (iv) contesting the powers of the District or its authority to enter into, adopt or perform its obligations under any of the foregoing, or contesting or affecting the power or authority of the District to impose rates and charges, or the collection thereof, or the pledge of revenues under the Indenture; or (v) which may result in any material adverse change in the ability of the District to pay the Series 2017AB Bonds; or (vi) contesting the status of the interest on the Series 2017AB Bonds as excludable from federal gross income as described in the Preliminary Official Statement or in the Official Statement; or (vii) which contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement; or (viii) wherein an unfavorable ruling or finding would result in any material adverse change in the business operations or financial condition of the District or the Water System;
- (e) All authorizations, approvals, licenses, permits, consents and orders of any governmental authority, legislative body, board, agency or commission having jurisdiction over the matter which are required for the due authorization by, or which would constitute a condition precedent to or the absence of which would materially adversely affect the approval or adoption, as applicable, of the District Documents, the issuance of the Series 2017AB Bonds or the due performance by, the District of its obligations in connection with the District Documents have been duly obtained and remain in full force and effect, except for such approvals, consents and orders as may be required under the Blue Sky or securities laws of any state in connection with the offering and sale of the Series 2017AB Bonds;
- (f) Under the laws of the State of California, the authority of the District to determine, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Water System is not presently subject to the regulatory jurisdiction of the California Public Utilities Commission, or other local, regional or state regulatory authority, and, except as otherwise disclosed in writing by the District to the Representative on or prior to the date hereof, the District is not aware of any legislation proposed or pending to limit or restrict such rates, fees and charges;
- (g) The Series 2017AB Bonds, when issued, authenticated and delivered in accordance with the Indenture and sold to the Underwriters as provided herein, will be valid and legally

enforceable obligations of the District in accordance with their terms and the terms of the Indenture and the Indenture will provide, for the benefit of the holders from time to time of the Series 2017AB Bonds and any parity bonds issued under the Indenture, a legally valid and binding pledge of Subordinated Water Revenues (as defined in the Indenture) and the funds and accounts pledged under the Indenture, subject only to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein;

- (h) The Series 2017AB Bonds and the Indenture conform in all material respects to the descriptions thereof contained in the Preliminary Official Statement and the Official Statement and the proceeds of the sale of the Series 2017AB Bonds will be applied generally as described in the Preliminary Official Statement and the Official Statement;
- (i) The financial statements of the District contained in the Preliminary Official Statements and the Official Statement do and will fairly present the financial position and results of operations of the District as of the dates and for the periods therein set forth in accordance with generally accepted accounting principles applied consistently, and, except as otherwise disclosed in the Preliminary Official Statement and the Official Statement, since the date thereof there has been no material adverse change in the financial position or results of operations of the District or the Water System;
- (j) The District will furnish such information, execute such instruments and take such other action in cooperation with the Underwriters as the Underwriters may reasonably request in order (i) to qualify the Series 2017AB Bonds for offer and sale under the Blue Sky or other securities laws and regulations of such states and other jurisdictions of the United States as the Underwriters may designate and (ii) to determine the eligibility of the Series 2017AB Bonds for investment under the laws of such states and other jurisdictions, and will use its best efforts to continue such qualification in effect so long as required for distribution of the Series 2017AB Bonds; provided, however, that in no event shall the District be required to take any action which would subject it to the general service of process in any jurisdiction in which it is not now so subject, and will use its best efforts to advise the Representative promptly of receipt by the District of any written notification with respect to the suspension of the qualification of the Series 2017AB Bonds for sale in any jurisdiction or the initiation or threat of any proceeding for that purpose;
- (k) The Preliminary Official Statement (except for information relating to offering prices, interest rate, selling compensation, aggregate principal amount, principal amount per maturity, delivery dates, ratings, other terms of the securities depending on such matters, and the identity of the underwriters and such other information as may be omitted therefrom pursuant to Rule 15c2-12) did not as of the date thereof and, as supplemented or amended through the date hereof, does not as of the date hereof contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading in any material respect (except for information relating to DTC and its bookentry only system, as to which no opinion or view is expressed);
- (l) As of the date thereof and at all times subsequent thereto to and including the date which is 25 days following the End of the Underwriting Period (as defined below) for the Series 2017AB Bonds, the Official Statement did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading;

- If between the date hereof and the date which is 25 days after the End of the Underwriting Period for the Series 2017AB Bonds, an event occurs which might or would cause the information contained in the Official Statement, as then supplemented or amended, to contain an untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make such information therein, in the light of the circumstances under which it was presented, not misleading, the District will notify the Underwriters, and, if in the opinion of the District, the Underwriters or their respective counsel, such event requires the preparation and publication of a supplement or amendment to the Official Statement, the District will forthwith prepare and furnish to the Underwriters (at the expense of the District) a reasonable number of copies of an amendment of or supplement to the Official Statement (in form and substance satisfactory to the Underwriters and their counsel) which will amend or supplement the Official Statement so that it will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at the time the Official Statement is delivered to prospective purchasers, not misleading. For the purposes of this subsection, between the date hereof and the date which is 25 days after the End of the Underwriting Period for the Series 2017AB Bonds, the District will furnish such information with respect to itself as the Underwriters may from time to time reasonably request;
- (n) If the information contained in the Official Statement is amended or supplemented pursuant to paragraph (m) hereof, at the time of each supplement or amendment thereto and (unless subsequently again supplemented or amended pursuant to such subparagraph) at all times subsequent thereto up to and including the date which is 25 days after the End of the Underwriting Period for the Series 2017AB Bonds, the portions of the Official Statement so supplemented or amended (including any financial and statistical data contained therein) will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or make such information therein, in the light of the circumstances under which it was presented, not misleading;
- (o) As used herein and for the purposes of this Purchase Contract, the term "End of the Underwriting Period" for the Series 2017AB Bonds shall mean the earlier of (i) the Closing Date unless the District shall have been notified in writing to the contrary by the Representative on or prior to the Closing Date, or (ii) the date on which the End of the Underwriting Period for the Series 2017AB Bonds has occurred under Rule 15c2-12; provided, however, that the District may treat as the End of the Underwriting Period for the Series 2017AB Bonds the date specified as such in a notice from the Representative stating the date which is the End of the Underwriting Period;
- (p) After the Closing, the District will not participate in the issuance of any amendment of or supplement to the Official Statement to which, after being furnished with a copy, the Underwriters shall reasonably object in writing;
- (q) Between the date of this Purchase Contract and the Closing Date, except as referred to in or as contemplated by the Official Statement, the District will not, without the prior written consent of the Representative (which consent shall not be unreasonably withheld), publicly offer or issue any bonds, notes or other obligations for borrowed money, or incur any material liabilities, direct or contingent, payable from the revenues of the Water System, nor will there be any adverse change of a material nature in the financial position, results of operations or condition, financial or otherwise, of the District, in either case other than in the ordinary course of its business or as discussed in the Official Statement;

- (r) The District is duly authorized to apply and will apply, or cause the application of, the proceeds of the Series 2017AB Bonds in accordance with the Indenture, including for payment of District expenses incurred in connection with the authorization, execution, delivery and sale of the Series 2017AB Bonds to the extent contemplated by Section 5;
- (s) Any certificate signed by any authorized official of the District, and delivered to the Underwriters in connection with the execution and delivery of the Series 2017AB Bonds, shall be deemed a representation and warranty by the District to the Underwriters as to the statements made therein; and
- (t) Except as disclosed in the Preliminary Official Statement and the Official Statement, the District has not failed within the last five years to comply in all material respects with any previous undertakings with regard to Rule 15c2-12 to provide annual reports of financial and operating data or notices of enumerated events.

4. <u>Conditions to the Obligations of the Underwriters.</u>

The Underwriters hereby enter into this Purchase Contract in reliance upon the representations and warranties of the District contained herein and the representations and warranties to be contained in the documents and instruments to be delivered at the Closing and upon the performance by the District of its obligations both on and as of the date hereof and as of the Closing Date. Accordingly, the Underwriters' obligations under this Purchase Contract to purchase, to accept delivery of and to pay for the Series 2017AB Bonds shall be subject, at the option of the Underwriters, to the accuracy in all material respects of the representations and warranties of the District contained herein as of the date hereof and as of the Closing Date, to the accuracy in all material respects of the statements of the officers and other officials of the District made in any certificate or other document furnished pursuant to the provisions hereof, to the performance by the District of its obligations to be performed hereunder and under such documents and instruments at or prior to the Closing Date, and also shall be subject to the following additional conditions:

- (a) The Underwriters shall receive, within seven (7) business days of the date hereof and, in any case, in sufficient time to accompany customer confirms requesting payment, copies of the Official Statement (including all information previously permitted to have been omitted by Rule 15c2-12 and any amendments or supplements as have been approved by the Underwriters), in such reasonable quantity as the Underwriters shall have requested;
- (b) The representations and warranties of the District contained herein shall be true and correct in all material respects on the date hereof and on the Closing Date, as if made on and at the Closing Date;
- (c) At the Closing, the District Documents shall have been duly authorized, executed and delivered by the respective parties thereto, and the Official Statement shall have been duly authorized, executed and delivered by the District, all in substantially the forms heretofore submitted to the Underwriters, with only such changes as shall have been agreed to in writing by the Underwriters (which consent shall not be unreasonably withheld), and shall be in full force and effect; and there shall be in full force and effect such resolution or resolutions of the Board of Directors of the District as, in the opinion of Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California ("Co-Bond Counsel"), and Orrick, Herrington & Sutcliffe LLP, San Francisco, California, counsel to the Underwriters (hereinafter,

"Underwriters' Counsel"), shall be necessary or appropriate in connection with the transactions contemplated hereby;

- (d) Between the date hereof and the Closing Date, the market price or marketability, at the initial offering price set forth in the Official Statement, of the Series 2017AB Bonds shall not have been materially adversely affected, in the reasonable judgment of the Underwriters (evidenced by a written notice to the District terminating the obligation of the Underwriters to accept delivery of and make any payment for the Series 2017AB Bonds), by reason of any of the following:
- an amendment to the Constitution of the United States or the State of (1) California shall have been passed or legislation shall have been introduced in or enacted by the Congress of the United States or the legislature of the State of California or legislation pending in the Congress of the United States shall have been amended or legislation shall have been recommended to the Congress of the United States or otherwise endorsed for passage (by press release, other form of notice or otherwise) by the President of the United States, the Treasury Department of the United States, the Internal Revenue Service or the Chairman or ranking minority member of the Committee on Finance of the United States Senate or the Committee on Ways and Means of the United States House of Representatives, or legislation shall have been favorably reported for passage to either House of the Congress of the United States by a Committee of such House to which such legislation has been referred for consideration, or a decision shall have been rendered by a court of the United States or of the State of California or the Tax Court of the United States, or a ruling shall have been made or a regulation or temporary regulation shall have been proposed or made or any other release or announcement shall have been made by the Treasury Department of the United States, the Internal Revenue Service or other federal or State of California authority, with respect to federal or State of California taxation upon revenues or other income of the general character to be derived by the District or upon interest received with respect to obligations of the general character of the Series 2017AB Bonds which, in the reasonable judgment of the Underwriters, may have the purpose or effect, directly or indirectly, of affecting the tax status of the District, its property or income, its securities (including the Series 2017AB Bonds) or the interest thereon, or any tax exemption granted or authorized by federal or State of California legislation;
- (2) legislation shall have been enacted, introduced in the Congress or recommended for passage by the President of the United States, or a decision rendered by a court established under Article III of the Constitution of the United States or by the Tax Court of the United States, or an order, ruling, regulation (final, temporary or proposed) or official statement by or on behalf of the Securities and Exchange Commission, or any other governmental agency having jurisdiction of the subject matter, shall have been made or issued to the effect that obligations of the general character of the Series 2017AB Bonds, or the Series 2017AB Bonds, are not exempt from registration under the Securities Act of 1933, as amended, or that the Indenture is not exempt from qualification under the Trust Indenture Act of 1939, as amended;
- (3) the declaration of war or the escalation of, or engagement in, military hostilities by the United States or the occurrence of any other national or international emergency or calamity relating to the effective operation of the government of, or the financial community in, the United States;
- (4) the declaration of a general banking moratorium by federal, State of New York or State of California authorities, or the general suspension of trading on any national securities exchange;

- (5) the imposition by the New York Stock Exchange or other national securities exchange, or any governmental authority, of any material restrictions not now in force with respect to the Series 2017AB Bonds or obligations of the general character of the Series 2017AB Bonds or securities generally, the material increase of any such restrictions now in force, including those relating to the extension of credit by, or the charge to the net capital requirements of, the Underwriters, the establishment of minimum or maximum prices on any national securities exchange, or a material disruption in securities settlement, payment or clearance services shall have occurred;
- (6) an order, decree or injunction of any court of competent jurisdiction, or order, ruling, regulation or official statement by the Securities and Exchange Commission, or any other governmental agency having jurisdiction of the subject matter, issued or made to the effect that the issuance, offering or sale of obligations of the general character of the Series 2017AB Bonds, or the issuance, offering or sale of the Series 2017AB Bonds, as contemplated hereby or by the Official Statement, is or would be in violation of the federal securities laws as amended and then in effect;
- (7) the withdrawal or downgrading of any rating of the Series 2017AB Bonds or the underlying rating of any of the District's Water System Revenue Bonds by a national rating agency then rating the Series 2017AB Bonds; or
- (8) any event occurring, or information becoming known which, in the reasonable judgment of the Underwriters, makes untrue in any material respect any statement or information then contained in the Official Statement, or has the effect that the Official Statement then contains any untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading and, in either such event, the District refuses to permit the Official Statement to be supplemented to supply such statement or information or the effect of the Official Statement as so supplemented is, in the judgment of the Underwriters, to materially adversely affect the market for the Series 2017AB Bonds or the sale of the Series 2017AB Bonds, at the contemplated offering prices (or yields).
- (e) At or prior to the Closing Date, the Underwriters shall have received the following documents, in each case satisfactory in form and substance to the Underwriters and Underwriters' Counsel:
- (1) Counterparts of the District Documents, duly executed and delivered by the respective parties thereto;
- (2) The approving opinion of Co-Bond Counsel, dated the Closing Date and addressed to the District, in substantially the form attached to the Official Statement in Appendix D thereto, and a letter of such counsel, dated the Closing Date and addressed to the Representative, to the effect that such opinion may be relied upon by the Underwriters to the same extent as if such opinion were addressed to them;
- (3) The supplemental opinion of Co-Bond Counsel, dated the Closing Date and addressed to the Representative, in substantially the form attached hereto as Exhibit B;

- (4) The opinion of the Office of General Counsel of the District, dated the Closing Date and addressed to the Representative, in substantially the form attached hereto as Exhibit C;
- (5) The opinion of counsel to the Trustee, dated the Closing Date and addressed to the District and the Representative, in substantially the form attached hereto as Exhibit D;
- (6) The defeasance opinion of Co-Bond Counsel, dated the Closing Date and addressed to the Representative, in substantially the form attached hereto as Exhibit E;
- (7) The opinion of Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Underwriters ("Special Tax Counsel"), dated the Closing Date and addressed to the District, in substantially the form attached to the Official Statement in Appendix D thereto, and a letter of such counsel, dated the Closing Date and addressed to the Representative, to the effect that such opinion may be relied upon by the Underwriters to the same extent as if such opinion were addressed to them;
- The opinion of Underwriters' Counsel, dated the Closing Date and addressed (8) to the Representative, to the effect that (a) the Series 2017AB Bonds are exempt from registration under the Securities Act of 1933, as amended, and the Indenture is exempt from qualification under the Trust Indenture Act of 1939, as amended, and the Disclosure Agreement satisfies paragraph (b)(5) of Rule 15c2-12; and (b) without having undertaken to determine independently the accuracy, completeness or fairness of the statements contained in the Preliminary Official Statement or the Official Statement and based upon the information made available to them in the course of their participation in the preparation of the Preliminary Official Statement and the Official Statement as counsel for the Underwriters, nothing has come to their attention which would cause them to believe that the Preliminary Official Statement, as of its date and as of the date of this Purchase Contract, or the Official Statement, as of the date thereof and the Closing Date, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that no opinion need be expressed with respect to the financial statements and the statistical data included in the Official Statement, and Appendices B through F thereto, and information regarding DTC and its book-entry only system;
- (9) A certificate or certificates, dated the Closing Date, signed by a duly authorized official of the District, in form and substance satisfactory to the Underwriters, to the effect that (a) the representations and warranties of the District contained in this Purchase Contract are true and correct in all material respects on and as of the Closing Date with the same effect as if made on the Closing Date; (b) to the best of such official's knowledge, no event affecting the District has occurred since the date of the Official Statement which either makes untrue or incorrect in any material respect as of the Closing Date any statement or information contained in the Official Statement relating to the District or is not reflected in the Official Statement but should be reflected therein in order to make the statements and information therein relating to the District not misleading in any material respect; (c) since June 30, 2016, except as referred to in or as contemplated by the Official Statement, the District has not incurred any financial liabilities, direct or contingent, or entered into any transactions and there has not been any adverse change in the condition, financial or physical, of the Water System, in any such case that would materially and adversely affect the ability of the District to meet its obligations under the Indenture or the Series 2017AB Bonds; and (d) the projected operating results and debt service coverage contained in Table 19 in Appendix A to the

Official Statement are the District's projections and are based on the stated assumptions, which the District believes to be reasonable;

- A certificate, dated the Closing Date, signed by a duly authorized official of (10)the Trustee, satisfactory in form and substance to the Underwriters, to the effect that: (a) the Trustee is a national banking association duly organized and existing under and by virtue of the laws of the United States of America, having the full power and being qualified to enter into and perform its duties under the Indenture, the Escrow Agreements and the Disclosure Agreement (collectively, the "Trustee Documents"); (b) the execution and delivery of the Trustee Documents and compliance with the provisions on the Trustee's part contained therein, will not conflict with or constitute a breach of or default under any law, administrative regulation, judgment, decree, loan agreement, indenture, bond, note, resolution, agreement or other instrument to which the Trustee is a party or is otherwise subject; and (c) the Trustee has not been served with any action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, governmental agency, public board or body, nor is any such action, to the best of such official's knowledge after reasonable investigation, threatened against the Trustee, as such but not in its individual capacity, affecting the existence of the Trustee, or the titles of its officers to their respective offices, or contesting or affecting the validity or enforceability of the Trustee Documents, or contesting the powers of the Trustee or its authority to enter into, adopt or perform its obligations under the foregoing, wherein an unfavorable decision, ruling or finding would materially adversely affect the validity or enforceability of the Trustee Documents;
- (11) A certified copy of the general resolution of the Trustee authorizing the execution and delivery of the Trustee Documents;
 - (12) A copy of the Preliminary Official Statement;
- (13) A copy of the Official Statement, executed on behalf of the District by authorized representatives of the District;
- (14) A copy of each of the resolutions of the District authorizing the execution and delivery of the Official Statement, the District Documents and the issuance of the Series 2017AB Bonds, certified by the Secretary or an Assistant Secretary of the District to be in full force and effect as of the Closing Date;
- (15) Evidence that any ratings described in the Official Statement are in full force and effect as of the Closing Date;
- (16) A copy of the Blue Sky Memorandum with respect to the Series 2017AB Bonds, prepared by Underwriters' Counsel;
- (17) A Tax Certificate signed by the District relating to the Series 2017AB Bonds, in form and substance satisfactory to Special Tax Counsel;
- (18) A copy of the Blanket Letter of Representations to DTC relating to the Series 2017AB Bonds signed by the District;

- (19) A Verification Report of _______, addressed to the Representative and dated the Closing Date, in form and substance acceptable to Co-Bond Counsel and Underwriters' Counsel; and
- (20) Such additional legal opinions, certificates, proceedings, instruments and other documents as the Underwriters, Underwriters' Counsel or Co-Bond Counsel may reasonably request to evidence the truth and accuracy, as of the date hereof and as of the Closing Date, of the representations of the District herein and of the statements and information contained in the Official Statement, and the due performance or satisfaction by the District at or prior to the Closing of all agreements then to be performed and all conditions then to be satisfied by the District in connection with the transactions contemplated hereby and by the District Documents and the Official Statement.

If the District shall be unable to satisfy the conditions to the Underwriters' obligations contained in this Purchase Contract or if the Underwriters' obligations shall be terminated for any reason permitted herein, all obligations of the Underwriters hereunder may be terminated by the Underwriters at, or at any time prior to, the Closing Date by written notice to the District and neither the Underwriters nor the District shall have any further obligations hereunder, except the District's obligation for the payment and reimbursement of expenses, as provided in Section 5 hereof, shall continue in full force and effect.

5. <u>Expenses</u>.

All expenses and costs incident to the authorization, execution, delivery and sale of the Series 2017AB Bonds to the Underwriters, including the costs of printing of the Series 2017AB Bonds, the Preliminary Official Statement and the Official Statement, the cost of preparing and duplicating the Indenture, the fees of accountants, consultants and rating agencies, the initial fee of the Trustee and its counsel in connection with the execution and delivery of the Series 2017AB Bonds and the fees and expenses of Co-Bond Counsel and Underwriters' Counsel shall be paid either from the proceeds of the Series 2017AB Bonds or from funds of the District. The District shall pay for expenses (included in the expense component of the Underwriters' discount) incurred on behalf of the District's employees which are incidental to implementing this Purchase Contract, including, but not limited to, meals, transportation and lodging, of those employees. In the event that the Series 2017AB Bonds for any reason are not executed and delivered, or to the extent proceeds of the Series 2017AB Bonds are insufficient or unavailable therefor, any such fees, costs and expenses owed by the District, which otherwise would have been paid from the proceeds of the Series 2017AB Bonds, shall be paid by the District. The District shall pay the reasonable out-of-pocket expenses of the Underwriters (included in the expense component of the Underwriters' discount), including travel and other expenses and the California Debt and Investment Advisory Commission fee. In the event that the Underwriters incur or advance the cost of any expense for which the District is responsible hereunder, the District shall reimburse the Underwriters at or prior to Closing; if at Closing, reimbursement may be included in the expense component of the Underwriter's discount. To the extent that the Underwriters have incurred expenses on behalf of the District which are to be reimbursed to the Underwriters or included as a component of the Underwriters' discount, the Underwriters agree to provide the District, with a detailed itemization of any such expenses prior to the Closing Date.

6. Notices.

Any notice or other communication to be given under this Purchase Contract may be given by delivering the same in writing to the respective parties at the following address:

District: East Bay Municipal Utility District

375 Eleventh Street

Oakland, California 94607 Attention: Director of Finance

Representative: Barclays Capital Inc.

555 California Street, 30th Floor San Francisco, California 94104

Attention: Michael Fleishman, Director

7. Survival of Representations and Warranties.

The representations and warranties of the District set forth in or made pursuant to this Purchase Contract shall not be deemed to have been discharged, satisfied or otherwise rendered void by reason of the Closing or termination of this Purchase Contract and regardless of any investigations or statements as to the results thereof made by or on behalf of the Underwriters and regardless of delivery of and payment for the Series 2017AB Bonds. All of the District's representations, warranties and agreements contained in this Purchase Contract shall remain operative and in full force and effect, regardless of: (i) any investigations made by or on behalf of the Underwriters; (ii) delivery of and payment for the Series 2017AB Bonds pursuant to this Purchase Contract; and (iii) any termination of this Purchase Contract.

8. <u>Effectiveness and Counterpart Signatures</u>.

This Purchase Contract shall become effective and binding upon the respective parties hereto upon the execution of the acceptance hereof by duly authorized officials of the District and shall be valid and enforceable as of the time of such acceptance. This Purchase Contract may be executed by the parties hereto in separate counterparts, each of which when so executed and delivered shall be an original, but all such counterparts shall together constitute but one and the same instrument.

9. Parties in Interest.

This Purchase Contract is made solely for the benefit of the District and the Underwriters (including the successors or assigns of the Underwriters) and no other person shall acquire or have any right hereunder or by virtue hereof.

10. Entire Agreement.

This Purchase Contract when accepted by you in writing as heretofore specified shall constitute the entire agreement between the District and the Underwriters with respect to the purchase of the Series 2017AB Bonds.

11. <u>Headings</u>.

The headings of the sections of this Purchase Contract are inserted for convenience only and shall not be deemed to be a part hereof.

12. <u>Governing Law</u>.

This	Purchase	Contract	shall	be	construed	in	accordance	with	the	laws	of	the	State	of
California.														

Very truly yours,
BARCLAYS CAPITAL INC., as Representative of the Underwriters
By:
Authorized Officer
ACCEPTED:
EAST BAY MUNICIPAL UTILITY DISTRICT
By:
Director of Finance

EXHIBIT A

MATURITY SCHEDULE

\$
EAST BAY MUNICIPAL UTILITY DISTRICT
WATER SYSTEM REVENUE BONDS,
SERIES 2017A (GREEN BONDS)

	SERIES 201711 (GR	ELIT DOITES)	
Dated Date: Date of Delive	ery		
Maturity Date (June 1)	Principal Amount	Interest Rate	Yield
	\$ EAST BAY MUNICIPAL TER SYSTEM REVENUE SERIES 20	Z/REFUNDING BONDS,	
Dated Date: Date of Delive		л / Б	
Maturity Date (June 1)	Principal Amount	Interest Rate	<u>Yield</u>
* Yield to par call date of _ + Non-callable.	1,		

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EXHIBIT B

FORM OF SUPPLEMENTAL OPINION OF CO-BOND COUNSEL

[CLOSING DATE]

Barclays Capital Inc., as Representative of the Underwriters San Francisco, California

> \$_____ EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California) WATER SYSTEM REVENUE BONDS, SERIES 2017A (GREEN BONDS)

> > and

EAST BAY MUNICIPAL UTILITY DISTRICT
(Alameda and Contra Costa Counties, California)
WATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017B

Ladies and Gentlemen:

We have acted as co-bond counsel to the East Bay Municipal Utility District (the "District") in connection with the issuance, sale and delivery of the District's Water System Revenue Bonds, Series 2017A (Green Bonds), in the aggregate principal amount of \$________, and the District's Water System Revenue/Refunding Bonds, Series 2017B, in the aggregate principal amount of \$_______ (collectively, the "Bonds"), issued pursuant to the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee, as amended and supplemented, including as amended and supplemented by a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Bonds (collectively, the "Indenture").

The Bonds are being sold on the date hereof by the District to Barclays Capital Inc., as Representative of itself, Goldman, Sachs & Co. and Merrill Lynch, Pierce, Fenner & Smith Incorporated, as Underwriters, pursuant to a Purchase Contract, dated June ___, 2017 (the "Purchase Contract").

All capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such terms in the Purchase Contract, or if not defined therein, in the Official Statement dated June ___, 2017, relating to the Bonds (the "Official Statement").

Barclays Capita	al Inc
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As to questions of fact material to our opinion, we have relied upon the certified proceedings and other certifications of the District and various public officials furnished to us without undertaking to verify the same by independent investigation.

Based upon the foregoing and our review of such other information, documents and matters of law as we considered necessary to render this opinion, we are of the opinion that:

- 1. The statements contained in the Preliminary Official Statement, dated May ___, 2017, relating to the Bonds (the "Preliminary Official Statement") and in the Official Statement on the cover and under the captions "INTRODUCTION," "THE SERIES 2017 BONDS," and "SECURITY FOR THE SERIES 2017 BONDS," and in "APPENDIX C ___ SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE," and "APPENDIX F __ FORM OF CONTINUING DISCLOSURE AGREEMENT" (excluding the statements under each such caption relating to The Depository Trust Company ("DTC"), Cede & Co. and the book-entry system, and any statements relating to the treatment of the Bonds or the interest, discount or premium, if any, thereon or therefrom for tax purposes under the laws of any jurisdiction, as to all of which we express no view); insofar as the statements contained under such captions purport to summarize certain provisions of the Bonds, the Indenture, the Continuing Disclosure Agreement, the Water Interest Rate Swap Agreements and the District's Commercial Paper Notes (Water Series), present an accurate summary of such provisions for the purpose of use in the Official Statement.
- 2. The Official Statement and the execution and delivery thereof have been duly approved by the District, and the Purchase Contract, the Escrow Agreements and the Continuing Disclosure Agreement have been duly authorized, executed and delivered by the District and (assuming due authorization, execution and delivery by and validity against the other parties thereto) are valid and binding agreements of the District, enforceable against the District in accordance with their respective terms. We call attention to the fact that the rights and obligations under the Purchase Contract, the Escrow Agreements and the Continuing Disclosure Agreement and the enforceability thereof are subject to and may be limited by bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other similar laws affecting creditors' rights, to the application of equitable principles, to the possible unavailability of specific performance or injunctive relief, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California. We express no opinion with respect to any indemnification, contribution, penalty, choice of law, choice of forum or waiver (including, without limitation, waiver of jury trial or consent to nonjury trial) provisions contained in the foregoing documents.
- 3. The Bonds are not subject to the registration requirements of the Securities Act of 1933, as amended, and the Indenture is exempt from qualification pursuant to the Trust Indenture Act of 1939, as amended.
- 4. The issuance of the Bonds, the execution and delivery of the Twenty-Eighth Supplemental Indenture, the Escrow Agreements, the Continuing Disclosure Agreement and the Purchase Contract by the District, and compliance by the District with provisions of the foregoing, as appropriate, do not in any material respect conflict with or constitute on the part of the District a Material Breach or Default under the Indenture or the Bonds issued thereunder or under the issuing and paying agent agreement, dated as of December 1, 2015, relating to the District's Commercial Paper Notes (Water Series) or, to the best of our knowledge, any loan agreement with any State

Barclays	Capital	Inc
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governmental agency to which the District is a party or to which the District or any of its property or assets are otherwise subject.

Based upon our participation in the preparation of the Preliminary Official Statement and the Official Statement as co-bond counsel and on the basis of the information made available to us in the course of the foregoing, but without having undertaken to determine or verify independently, or assuming any responsibility for, the accuracy, completeness or fairness of any of the statements contained in the Preliminary Official Statement or the Official Statement (except to the extent expressly set forth in paragraph 1 above), as of the date hereof no facts have come to the attention of the personnel in our respective firms directly involved in rendering legal advice and assistance in connection with the preparation of the Preliminary Official Statement or the Official Statement that causes us to believe that (a) the Preliminary Official Statement as of the date of the Purchase Contract contained any untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading (excluding therefrom the discussions contained in the Preliminary Official Statement of permits, licenses and approvals required for the construction and operation of any projects of the District, and the status thereof, the description of any litigation, statements relating to the treatment of the Bonds or the interest, discount or premium, if any, thereon or therefrom for tax purposes under the law of any jurisdiction, any information relating to DTC, Cede & Co., the book-entry system, forecasts, projections, estimates, assumptions and expressions of opinions and the financial and statistical data included therein, as to all of which we express no view), and except for such information as is permitted to be excluded from the Preliminary Official Statement pursuant to Rule 15c2-12 of the Securities Exchange Act of 1934, as amended, including but not limited to information as to pricing, yields, interest rates, maturities, amortization, redemption provisions, debt service requirements, underwriters' discount, ratings and CUSIP numbers, or (b) the Official Statement as of its date or as of the date hereof contained or contains any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading (excluding therefrom the discussions contained in the Official Statement of permits, licenses and approvals required for the construction and operation of any projects of the District, and the status thereof, the description of any litigation, statements relating to the treatment of the Bonds or the interest, discount or premium, if any, thereon or therefrom for tax purposes under the law of any jurisdiction, any information relating to DTC, Cede & Co., the book-entry system, forecasts, projections, estimates, assumptions and expressions of opinions and the financial and statistical data included therein, as to all of which we express no view).

During the period from the date of the Preliminary Official Statement to the date of this opinion, except for our review of the certificates and opinions regarding the Preliminary Official Statement and the Official Statement delivered on the date hereof, we have not undertaken any procedures or taken any actions which were intended to or were likely to elicit information concerning the accuracy, completeness or fairness of any of the statements contained in the Preliminary Official Statement or the Official Statement.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions. Such opinions may be adversely affected by actions taken or events occurring, including a change in law, regulation or ruling (or in the application or official interpretation of any law, regulation or ruling) after the date hereof. We have not undertaken to determine, or to inform

Barclays (Capital	Inc
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any person, whether such actions are taken or such events occur, and we have no obligation to update this opinion in light of any such actions or events.

We are furnishing you this letter at the request of the District and solely for the information of, and assistance to, you in conducting and documenting your investigation of the affairs of the District in connection with the offering of the Bonds and it is not to be used, circulated, quoted or otherwise referred to for any other purpose, including but not limited to the purchase or sale of the Bonds, nor is it to be referred to in whole or in part in the Official Statement or any other document, except that it may be included in, and reference may be made to it in any list of, the closing documents pertaining to the delivery of the Bonds. The provision of this opinion to you shall not create any attorney-client relationship between either of our firms and you. This opinion may not be relied upon by any other person, firm, corporation or other entity without our prior written consent.

Respectfully submitted,

Respectfully submitted,

EXHIBIT C

FORM OF OPINION OF OFFICE OF DISTRICT GENERAL COUNSEL

[CLOSING DATE]

Barclays Capital Inc., as Representative of the Underwriters San Francisco, California

EAST BAY MUNICIPAL UTILITY DISTRICT
(Alameda and Contra Costa Counties, California)
WATER SYSTEM REVENUE BONDS, SERIES 2017A (GREEN BONDS)

and

EAST BAY MUNICIPAL UTILITY DISTRICT
(Alameda and Contra Costa Counties, California)
WATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017B

Ladies and Gentlemen:

I am General Counsel to the East Bay Municipal Utility District (the "District"), a municipal utility district organized and existing pursuant to the Municipal Utility District Act, constituting Division 6 of the Public Utilities Code of the State of California, as amended. This opinion is rendered pursuant to Section 4(e)(4) of the Purchase Contract (the "Purchase Contract") dated June ___, 2017 between the District and Barclays Capital Inc., as representative of the underwriters (the "Underwriters") listed therein, and relating to the sale of \$______ aggregate principal amount of District's Water System Revenue Bonds, Series 2017A (Green Bonds), and \$______ aggregate principal amount of the District's Water System Revenue/Refunding Bonds, Series 2017B (collectively, the "Series 2017AB Bonds"). Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Purchase Contract or if not defined therein, in the Official Statement dated June ___, 2017, relating to the Series 2017AB Bonds (the "Official Statement").

In rendering this opinion, I have examined the following documents: (i) the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, between the District and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by the Twenty-Eighth Supplemental Indenture dated as of June 1, 2017 by and between the District and the Trustee (collectively, the "Indenture"); (ii) the Continuing Disclosure Agreement, dated June ___, 2017, by and between the District and the Trustee; (iii) the Escrow Agreements, dated as of June 1, 2017 (the "Escrow Agreement"), by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent; (iv) the Preliminary Official Statement, dated May ___, 2017, relating to the Series

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2017AB Bonds (the "Preliminary Official Statement") and the Official Statement; (v) the Series 2017AB Bonds; and (vi) such other documents and instruments, including certificates of public officials, and have made such investigations of law and of fact as I have deemed necessary or appropriate for the purpose of rendering the opinions set forth herein. The Indenture, the Continuing Disclosure Agreement, the Escrow Agreements and the Purchase Contract are collectively referred to herein as the "District Documents." In addition, I call attention to the fact that the rights and obligations under the District Documents, the Series 2017AB Bonds and the other legal documents and the enforceability thereof are subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California.

Based on the foregoing, I am of the opinion that:

- (1) The District is, and was at all relevant times, a municipal utility district duly organized and validly existing under the laws of the State of California.
- (2) The resolution or resolutions of the District approving and authorizing the execution and delivery of the Series 2017AB Bonds, the District Documents and the Official Statement (the "Resolutions") were duly adopted and/or approved by the District at meetings of the Board of Directors of the District, which were called and held pursuant to law and with all public notice required by law and at which a quorum was present and acting throughout, and each of the District Documents has been duly authorized, executed and delivered by the District and (assuming due authorization, execution and delivery by the other parties thereto) constitutes the legal, valid and binding obligation of the District.
- Except as disclosed in the Preliminary Official Statement and the Official Statement or otherwise disclosed in writing by the District to the Underwriters on or prior to the date hereof, there is no action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, governmental agency, public board or body, pending (with service of process having been accomplished) or, to my actual knowledge after reasonable investigation, threatened against or affecting the District: (i) in any material respect affecting or contesting the existence of the District or the titles of its officers to their respective offices; or (ii) affecting or seeking to prohibit, restrain or enjoin the issuance, sale or delivery of the Series 2017AB Bonds; or (iii) contesting or affecting, as to the District, the validity or enforceability of the Series 2017AB Bonds or the District Documents; or (iv) contesting the powers of the District or its authority to enter into, adopt or perform its obligations under the Series 2017AB Bonds or the District Documents or contesting or affecting the power or authority of the District to impose rates and charges, or the collection thereof, or the pledge of revenues under the Indenture; or (v) which may result in any material adverse change in the ability of the District to pay the Series 2017AB Bonds; or (vi) contesting the status of the interest on the Series 2017AB Bonds as excludable from federal gross income as described in the Preliminary Official Statement and in the Official Statement; or (vii) contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement; or (viii) wherein an unfavorable ruling or finding would result in any material adverse change in the business operations or financial condition of the District or the Water System.
- (4) The issuance of the Series 2017AB Bonds, the execution and delivery of the District Documents and the Official Statement by the District, the adoption of the Resolutions, and

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compliance by the District with the provisions of the foregoing, as appropriate, to the best of my actual knowledge after reasonable investigation, do not and will not in any material respect conflict with or constitute on the part of the District a Material Breach or Default under any loan agreement, indenture, bond, note, resolution, agreement or other instrument to which the District is a party or to which the District or any of its property or assets is otherwise subject or any existing law, administrative regulation, judgment, decree, court order or consent decree to which the District or any of its property or assets is subject. In rendering the foregoing opinion, I have relied, in part, upon the opinion of Norton Rose Fulbright US LLP and Curls Bartling P.C. expressed in paragraph (4) of their supplemental opinion delivered on this date.

- (5) Except as described in the Preliminary Official Statement and the Official Statement, no authorization, approval, consent, or other order of the State of California or any other governmental authority or agency within the State of California having jurisdiction over the District or its property is required for the valid authorization, execution, delivery and performance by the District of the District Documents or the Official Statement or for the adoption of the Resolutions which has not been obtained, provided that no opinion is expressed with respect to qualification under Blue Sky or other state securities laws.
- Without having undertaken to determine independently the accuracy, completeness or fairness of the statements contained in the Preliminary Official Statement or the Official Statement and based upon the information made available to me during the preparation of the Preliminary Official Statement and the Official Statement as General Counsel to the District, nothing has come to my attention which causes me to believe that (i) the information contained in the Preliminary Official Statement under the captions "THE DISTRICT," "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS" and "LITIGATION" and in Appendix A—"THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)" (excluding therefrom forecasts, projections, estimates, assumptions and the financial and statistical data included in the Preliminary Official Statement, as to which no opinion is expressed), as of the date of the Purchase Contract, contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, or (ii) the information contained in the Official Statement under the captions "THE DISTRICT," "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS" and "LITIGATION" and in Appendix A—"THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)" (excluding therefrom forecasts, projections, estimates, assumptions and the financial and statistical data included in the Official Statement, as to which no opinion is expressed), as of the date thereof and as of the date hereof, contained or contains an untrue statement of a material fact or omitted or omits to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.
- (7) The Subordinated Water Revenues are free and clear of and from any and all liens and encumbrances other than as set forth in the Official Statement.
- (8) Under the laws of the State of California, the District has the authority to fix and collect rates, fees and charges in connection with the services and facilities furnished by the Water System and is not presently subject to the regulatory jurisdiction of any state, regional or local government regulatory authority in connection with fixing and collecting such rates, fees and

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charges. No assurance can be given that any such legislation may not be proposed or introduced after the date of this opinion.

I express no opinion as to any matters other than as expressly set forth above and assume no obligation to revise or supplement this opinion should any law on which any opinions are based or any facts or matters upon which I have relied subsequently change. Without limiting the generality of the foregoing, I specifically express no opinion as to the status of the Series 2017AB Bonds or the interest thereon under any federal securities laws or any state securities or "Blue Sky" law or any federal, state or local tax law. Further, I express no opinion on the laws of any jurisdiction other than the State of California and the United States of America.

This opinion is delivered to you as the representatives of the Underwriters and is solely for the benefit of the Underwriters and is not to be used by any other person or for any other purpose.

Very truly yours,

Craig S. Spencer General Counsel

EXHIBIT D

FORM OF TRUSTEE COUNSEL'S OPINION

[CLOSING DATE]

Barclays Capital Inc., as Representative of the Underwriters San Francisco, California

> East Bay Municipal Utility District Water System Revenue Bonds, Series 2017A (Green Bonds)

> > and

East Bay Municipal Utility District Water System Revenue Bonds, Series 2017B

Ladies and Gentlemen:

I have acted as special counsel to The Bank of New York Mellon Trust Company, N.A., as successor trustee ("BNY"), in connection with the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, between the East Bay Municipal Utility District (the "District") and BNY, as amended and supplemented, including as amended and supplemented by a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017 (the "Twenty-Eighth Supplemental Indenture and collectively, the "Indenture") in connection with the issuance of \$______ aggregate principal amount of the District's Water System Revenue Bonds, Series 2017A (Green Bonds), and \$______ aggregate principal amount of the District's Water System Revenue/Refunding Bonds, Series 2017B (collectively, the "Bonds"). This opinion is rendered pursuant to Section 4(e)(5) of the Purchase Contract, dated June ___, 2017 (the "Purchase Contract"), between the District and Barclays Capital Inc., as Representative of the Underwriters listed therein. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Purchase Contract.

In my capacity as counsel to BNY, I have examined originals or copies identified to my satisfaction of: (i) the Articles of Association and By-Laws of BNY, (ii) the Indenture, (iii) the Escrow Agreement, dated June 1, 2017 (the "Escrow Agreement"), by and between the District and BNY as escrow agent and trustee, (iv) the Continuing Disclosure Agreement, dated June ___, 2017 (the "Continuing Disclosure Agreement"), by and between the District and BNY as dissemination agent and (v) such other records, certificates and documents as I have considered necessary or appropriate for the purpose of the opinion hereinafter rendered. The Indenture, the Escrow Agreements and the Continuing Disclosure Agreement are hereinafter collectively referred to as "Trustee Documents".

In rendering this opinion, I have relied upon the facts and information obtained from the records of BNY, officers of BNY, and other sources believed by me to be reliable, and have not undertaken to independently verify the accuracy of the factual matters represented, warranted, or certified in such documents. I have assumed the genuineness of all signatures other than BNY's, the

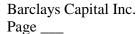
Barclays	Capital	Inc
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authenticity of documents, certificates and records submitted to me as originals, the conformity to the originals of all documents, certificates and records submitted to me as copies, the legal capacity of all natural persons executing documents other than BNY's, and the completeness and accuracy as of the date of this opinion letter of the information contained in such documents, certificates and records, which assumptions I have not independently verified. The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions.

Based upon and subject to the foregoing and subject to the qualifications set forth below, I am of the opinion that:

- 1. BNY is a national banking association duly organized and validly existing under and by virtue of the laws of the United States of America, having full power and being qualified to enter into and perform its duties under the Trustee Documents.
- 2. BNY has taken all corporate action necessary to assume the duties and obligations of trustee under the Indenture, of trustee and escrow agent under the Escrow Agreements and of dissemination agent under the Continuing Disclosure Agreement and to authorize in such respective capacities the execution and delivery of the Twenty-Eighth Supplemental Indenture, the Escrow Agreements and the Continuing Disclosure Agreement and the acceptance of the duties of BNY under each of the foregoing does not and will not contravene any law of governmental regulation or order presently binding on BNY or its Articles of Association or By-Laws or, to my knowledge, contravene any provision or constitute a default under any indenture, contract or other instrument to which BNY is a party or by which BNY is or may be bound.
- 3. BNY has duly executed and delivered the Twenty-Eighth Supplemental Indenture, the Escrow Agreements and the Continuing Disclosure Agreement and the Trustee Documents, assuming due authorization, execution and delivery by the District, constitute the legal, valid and binding obligations of BNY, enforceable in accordance with their terms, except to the extent the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, receivership, moratorium, fraudulent conveyance, and other similar laws affecting the rights and remedies of creditors generally, and by the effect of general principles of equity, including without limitation, concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance or injunctive relief, whether considered in a proceeding at law or in equity.
- 4. All approvals, consents and orders of any governmental authority or agency having jurisdiction in the matter which would constitute a condition precedent to the performance by BNY of any of its duties and obligations under the Trustee Documents (insofar as it has the obligation to obtain any such approval, consent or order) have been obtained and are in full force and effect.

I express no opinion as to any matter other than as expressly set forth above, and, in conjunction therewith, I specifically express no opinion as to the status of the Bonds or the interest thereon under any federal securities laws, including but not limited to the Securities Act of 1933, as amended, and the Trust Indenture Act of 1939, as amended, or any state securities or "Blue Sky" law, or any federal, state or local tax law.



This opinion is as of the date hereof, and I have undertaken no, and hereby disclaim any, obligation to advise you of any change in any matter set forth herein even though the changes may affect a legal analysis or conclusion in this opinion letter. Further, this opinion neither implies, nor should it be viewed to imply, an approval or recommendation of any investment in any Bond.

I express no opinion as to the effect of any law other than the law of California and the federal laws of the United States of America on the matters referred to herein, in each case as they exist on the date hereof. I express no opinion with respect to the laws, regulations, or ordinances of any county, municipal or other local governmental agency.

This opinion is furnished by me solely for your benefit. This opinion letter may be relied upon by you only in connection with the transaction described in the initial paragraph of this opinion letter and may not be used or relied upon by you for any other purpose or by any other person for any purpose whatsoever without, in each instance, my prior written consent.

Respectfully submitted,

EXHIBIT E

FORM OF DEFEASANCE OPINION

[Closing Date]

Barclays Capital Inc., as Representative of the Underwriters San Francisco, California

The Bank of New York Mellon Trust Company, N.A. San Francisco, California

East Bay Municipal Utility District (Alameda and Contra Costa Counties, California) Water System Revenue/Refunding Bonds, Series 2017B

Ladies and Gentlemen:

The Series 2017B Bonds are being issued for the purpose, among others, of refunding (i) \$_____ principal amount of the District's outstanding Water System Subordinated Revenue Refunding Bonds, Series 2007B (the "Refunded 2007B Bonds"), and (ii) \$_____ principal amount of the District's outstanding Water System Subordinated Revenue/Refunding Bonds, Series 2010A (the "Refunded Series 2010A Bonds," and together with the Refunded Series 2007B Bonds, the "Refunded Bonds").

In our capacity as co-bond counsel, we have examined a certified copy of the proceedings relating to the issuance of the Refunded Bonds and the Series 2017B Bonds and such other documents and instruments as we deemed necessary to render the opinions set forth herein, including the Indenture, data and computations prepared by [Barclays Capital Inc.] [Montague DeRose and Associates, LLC], a verification report relating to the Refunded Bonds, dated the date hereof and

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prepared by	(the "Verification Report"), the Escrow Agreement relating to the
Refunded 2007B Bonds	, dated as of June 1, 2017 (the "2007B Escrow Agreement"), by and between
the District and The Bar	nk of New York Mellon Trust Company, N.A., as escrow agent (the "Escrow
Agent"), and the Escrov	v Agreement relating to the Refunded 2010A Bonds, dated as of June 1, 2017
(the "2010A Escrow A	agreement" and together with the 2007B Escrow Agreement, the "Escrow
Agreements"), by and b	etween the District and the Escrow Agent. As to questions of fact material to
our opinion, we have re	lied upon the certified proceedings and other certifications of District officers
and various public office	cials furnished to us without undertaking to verify the same by independent

Based on and subject to the foregoing, we are of the opinion that:

- 1. The defeasance of the Refunded 2007B Bonds and the deposit of moneys with the Escrow Agent pursuant to the 2007B Escrow Agreement are authorized by and comply with the conditions and terms of the Indenture.
- 2. Provision has been made to pay the redemption price of the 2007B Refunded Bonds, together with and unpaid interest thereon, on _______, 2017, all in accordance with the conditions and terms of the Indenture. Accordingly, the Refunded Bonds have been deemed to have been paid within the meaning expressed in the Indenture, the owners of the Refunded 2007B Bonds have ceased to be entitled to the pledge of and charge and lien established by the Indenture, and all agreements, covenants and other obligations of the District to the owners of the Refunded 2007B Bonds under the Indenture have ceased, terminated and become void and have been discharged and satisfied.
- 3. The defeasance of the Refunded 2010A Bonds and the deposit and investment of moneys with the Escrow Agent pursuant to the 2010A Escrow Agreement are authorized by and comply with the conditions and terms of the Indenture.
- 4. Provision has been made to pay interest on the Refunded 2010A Bonds becoming due on and prior to June 1, 2020 and the redemption price of the Refunded 2010A Bonds on June 1, 2020, all in accordance with the conditions and terms of the Indenture. Accordingly, the Refunded 2010A Bonds have been deemed to have been paid within the meaning expressed in the Indenture, the owners of the Refunded 2010A Bonds have ceased to be entitled to the pledge of and charge and lien established by the Indenture, and all agreements, covenants and other obligations of the District to the owners of the Refunded 2010A Bonds under the Indenture have ceased, terminated and become void and have been discharged and satisfied.

In rendering the opinions above, we have relied on the Verification Report and the Escrow Agreements as to matters contained therein. We note that ______ has made certain assumptions in the Verification Report which we have not independently verified. We have also assumed that all other sums payable by the District under the Indenture with respect to the Refunded Bonds have been paid and that provision has been made by the District for the mailing of a notice to the respective owners of the Refunded Bonds that the deposit of moneys pursuant to the applicable 2007B Escrow Agreement or 2010A Escrow Agreement has occurred, as applicable, and is so available for payment of the related Refunded Bonds.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions. Such opinions may be adversely affected by actions taken or events occurring,

investigation.

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including a change in law, regulation or ruling (or in the application or official interpretation of any law, regulation or ruling) after the date hereof. We have not undertaken to determine, or to inform any person, whether such actions are taken or such events occur, and we have no obligation to update this opinion in light of such actions or events.

This opinion is addressed to you and it is not to be quoted, used, circulated or otherwise referred to for any other purpose without our written consent. No attorney-client relationship has existed or exists between us and your firms in connection with the Series 2017B Bonds or by virtue of this opinion.

Respectfully submitted,

Respectfully submitted,

ESCROW AGREEMENT RELATING TO THE DEFEASANCE OF EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM SUBORDINATED REVENUE REFUNDING BONDS, SERIES 2007B

THIS ESCROW AGREEMENT (the "Escrow Agreement"), dated as of June 1, 2017, is by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as escrow agent hereunder (the "Escrow Agent") and as trustee with respect to the Series 2007B Bonds referred to below (the "Trustee"),

WITNESSETH:

WHEREAS, the District has previously authorized and issued its \$54,790,000 principal amount of East Bay Municipal Utility District Water System Subordinated Revenue Refunding Bonds, Series 2007B, of which \$13,080,000 principal amount remains outstanding (the "Series 2007B Bonds"), pursuant to the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented, including as amended and supplemented by the Twelfth Supplemental Indenture, dated as of May 1, 2007, by and between the District and the Trustee (collectively, the "Indenture");

WHEREAS, the District has determined to issue \$______ aggregate principal amount of its East Bay Municipal Utility District Water System Revenue/Refunding Bonds, Series 2017B (the "Series 2017B Bonds"), pursuant to the Indenture, including as amended and supplemented by the Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, providing for the issuance of the Series 2017B Bonds, for the purpose, among other purposes, of refunding all of the \$13,080,000 outstanding principal amount of Series 2007B Bonds, hereinafter referred to as the "Refunded Series 2007B Bonds");

WHEREAS, by irrevocably depositing with the Escrow Agent a specified amount of the proceeds from the sale of the Series 2017B Bonds and directing the Escrow Agent to invest such amounts in certain investments satisfying the criteria set forth in Section 10.03 of the Indenture (herein, the "Federal Securities"), if any, the Escrow Agent will have money sufficient to pay on ______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$13,080,000 outstanding principal amount of the Refunded Series 2007B Bonds maturing on and after June 1, 2018, together with accrued interest thereon;

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, the District and the Escrow Agent agree as follows:

SECTION 1. <u>Deposit of Moneys</u>. Simultaneously with the delivery of the Series 2017B Bonds, the District shall deposit with the Escrow Agent \$______, representing \$______ of the proceeds of the sale of the Series 2017B Bonds, [and \$______ of amounts contributed by the District]; all to be held in irrevocable escrow by the Escrow Agent, separate and apart from other funds and accounts of the District and the Escrow Agent, in a fund hereby created and

established to be known as the "Series 2007B Bonds Escrow Fund," to be applied solely as provided in this Escrow Agreement. The deposit is in a total amount which has been calculated by [Montague DeRose and Associates, LLC, as co-municipal advisor to the District] in connection with the Series 2017B Bonds and verified by ______ (the "Verification Agent") to be sufficient to pay on ______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$13,080,000 outstanding principal amount of the Refunded Series 2007B Bonds to be redeemed on such date, together with accrued interest thereon.

The Escrow Agent hereby acknowledges receipt of such calculations prepared by [Montague DeRose and Associates, LLC, as co-municipal advisor to the District] in connection with the Series 2017B Bonds, the mathematical accuracy of which has been verified by the Verification Agent in its report relating to the Refunded Series 2007B Bonds (the "Verification Report"), a copy of which has been provided to the Escrow Agent, and the Escrow Agent may rely upon the conclusion of such report to the effect that the amounts to be deposited in the Series 2007B Bonds Escrow Fund as described in this Section 1 will be sufficient to pay on ________, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$13,080,000 outstanding principal amount of the Refunded Series 2007B Bonds maturing on and after June 1, 2018, together with accrued interest thereon.

SECTION 2. <u>Investment of Moneys</u>. The Escrow Agent agrees to immediately invest any moneys deposited or transferred to the Series 2007B Bonds Escrow Fund in accordance with Section 1 hereof in the Federal Securities (if any) set forth in Schedule B hereto and to deposit such Federal Securities (if any) in the Series 2007B Bonds Escrow Fund. All other amounts in the Series 2007B Bonds Escrow Fund, or if no Federal Securities are set forth in Schedule B hereto, all amounts, not so invested shall be held as cash.

SECTION 3. Reinvestment Requirements. In the event that the Escrow Agent receives any payment of principal or interest from the Federal Securities (if any), prior to the date on which such payment is required for the purposes set forth herein, the Escrow Agent shall, at the written direction of the District, reinvest the amount of such payment, or any portion thereof, in noncallable bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America maturing not later than the date on which such payment or portion thereof is required for the purposes set forth in Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2007B Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, and provided the District has obtained and delivered to the Escrow Agent an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest on the Refunded Series 2007B Bonds or the Series 2017B Bonds for purposes of federal income taxation. Any interest income resulting from investment or reinvestment of moneys pursuant to this Section 3 which is not required for the purposes set forth in this Section 3 or Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2007B Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, shall be paid to the District promptly upon the receipt of such interest income by the Escrow Agent. In the absence of such written direction, the Escrow Agent shall hold such amounts uninvested.

SECTION 4. Substitution of Securities. Upon the written request of the District, and subject to the conditions and limitations herein set forth and applicable governmental rules and regulations, the Escrow Agent shall sell, redeem or otherwise dispose of the Federal Securities (if any), provided there are substituted therefor from the proceeds of such Federal Securities (if any), bonds and other obligations which, as to principal and interest, constitute direct noncallable obligations of, or are unconditionally guaranteed by, the United States of America, but only after the District has obtained and delivered to the Escrow Agent (i) an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest payable on the Refunded Series 2007B Bonds or the Series 2017B Bonds for purposes of federal income taxation, and (ii) a report by the Verification Agent or another independent certified public accountant or firm of certified public accountants to the effect that such substitution and reinvestment will not adversely affect the sufficiency of the amounts of securities, investments and money in the Series 2007B Bonds Escrow Fund to pay the principal or redemption price of, and interest on, the Refunded Series 2007B Bonds in accordance with this Escrow Agreement. The Escrow Agent shall not be liable or responsible for any loss resulting from any reinvestment made pursuant to this Escrow Agreement and in full compliance with the provisions hereof.

SECTION 5. Payment of Refunded Series 2007B Bonds.

(a) Payment. From the maturing principal of the Federal Securities (if any) and the investment income and other earnings thereon, if any, and the moneys on deposit in the Series 2007B Bonds Escrow Fund, the Escrow Agent shall apply the amounts on deposit in the Series 2007B Bonds Escrow Fund to pay on _______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$13,080,000 outstanding principal amount of the Refunded Series 2007B Bonds maturing on and after June 1, 2018, together with accrued interest thereon. The amount required to be paid on the Refunded Series 2007B Bonds is shown on Schedule C hereto. Any moneys remaining in the Series 2007B Bonds Escrow Fund after payment of the Refunded Series 2007B Bonds in full as provided in this Section 5(a) shall be transferred by the Escrow Agent to the trustee for the Series 2017B Bonds to be applied to the payment of interest on the Series 2017B Bonds.

(b) <u>Irrevocable Instructions to Provide Notice</u>.

(1) The District hereby irrevocably instructs the Escrow Agent (as Trustee for the Refunded Series 2007B Bonds) to provide, within three (3) business days of the date of deposit of amounts pursuant to Section 1 hereof, a notice substantially in the form of Exhibit A that an irrevocable deposit has been made with the Escrow Agent and that the Refunded Series 2007B Bonds have been deemed to be paid in accordance with the Indenture, (i) by first-class mail to the registered owners of the Refunded Series 2007B Bonds, to the Series 2007B Bond Insurer and to Moody's, Standard & Poor's and Fitch (each as defined in the Indenture or Twelfth Supplemental Indenture, as applicable), (ii) by facsimile or other electronic means of communication and by first-class mail to the Securities Depositories (as defined in the Indenture), and (iii) by electronic means of

communication to the Municipal Securities Rulemaking Board ("MSRB") through the Electronic Municipal Market Access System (referred to as "EMMA"), at www.emma.msrb.org; and

(2) The District and the Escrow Agent hereby acknowledge that the District has heretofore instructed the Escrow Agent (as Trustee for the Refunded Series 2007B Bonds) to provide, at least thirty (30) days but not more than sixty (60) days prior to _______, 2017 (i.e., the redemption date), a notice substantially in the form of Exhibit B of the redemption of the Refunded Series 2007B Bonds to be redeemed on such date (i) by first-class mail to the registered owners of the Refunded Series 2007B Bonds, to the Series 2007B Bond Insurer and to Moody's, Standard & Poor's and Fitch, (ii) by facsimile and by first-class mail to the Securities Depositories, (iii) by first-class mail to the Information Services (as defined in the Indenture), and (iv) by electronic means of communication to the MSRB through EMMA, at www.emma.msrb.org, all in accordance with the Indenture.

The Escrow Agent hereby confirms that it will take all actions required to be taken by it under the Indenture and this Escrow Agreement in order to effectuate the defeasance, redemption and payment of the Refunded Series 2007B Bonds as provided herein.

- (c) <u>Unclaimed Moneys</u>. Any moneys which remain unclaimed for two years after the date such moneys have become due and payable hereunder shall be repaid by the Escrow Agent to the District, and the Escrow Agent shall thereupon be released and discharged with respect thereto, and the owners of the Refunded Series 2007B Bonds shall look only to the District for the payment of the Refunded Series 2007B Bonds; provided, however, that before making such repayment to the District, the Escrow Agent shall, at the expense of the District, cause to be mailed to the registered owners of any unredeemed Refunded Series 2007B Bonds that have not been delivered for cancellation, a notice that such money remains unclaimed and that, after a date set forth in the notice, which date shall not be less than thirty (30) days after the date of mailing of the notice, the balance of the money then unclaimed will be returned to the District.
- (d) <u>Priority of Payments</u>. The owners of the Refunded Series 2007B Bonds shall have a lien on moneys and securities, if any, in the Series 2007B Bonds Escrow Fund which are allocable and sufficient to repay the Refunded Series 2007B Bonds, in accordance with this Escrow Agreement, as verified by the Verification Report, until such moneys and such securities, if any, are used and applied as provided in this Escrow Agreement.
- (e) <u>Termination of Obligation</u>. As provided in the Indenture, upon deposit of moneys with the Escrow Agent in the Series 2007B Bonds Escrow Fund as set forth in Section 1 hereof and the purchase of the various Federal Securities (if any) as provided in Section 2 hereof and notice of, or provision for notice of redemption having been given as set forth in Section 5(b) hereof, all liability of the District in respect of the Refunded Series 2007B Bonds shall cease, terminate, and be completely discharged and satisfied and the owners thereof shall be entitled to the payment of the redemption price thereof only out of the moneys deposited therefor as provided in this Escrow Agreement.

SECTION 6. <u>Performance of Duties</u>. The Escrow Agent agrees to perform only the duties set forth herein and shall have no responsibility to take any action or omit to take any action not set forth herein.

SECTION 7. <u>Escrow Agent's Authority to Make Investments</u>. Except as provided in Section 2, 3 and 4 hereof, the Escrow Agent shall have no power or duty to invest any funds held under this Escrow Agreement or to sell, transfer or otherwise dispose of the cash or the Federal Securities (if any) held hereunder.

With respect to any investments made by the Escrow Agent in accordance with this Escrow Agreement, the District acknowledges that to the extent regulations of the Comptroller of the Currency or other applicable regulatory entity grant the District the right to receive brokerage confirmations of security transactions as they occur, the District specifically waives receipt of such confirmations to the extent permitted by law. The Escrow Agent will furnish to the District periodic cash transaction statements which include detail for all investment transactions made by the Escrow Agent hereunder.

If the Escrow Agent learns that the Department of the Treasury or the Bureau of Public Debt will not, for any reason, accept a subscription for Federal Securities (if any) that is to be submitted pursuant to this Escrow Agreement, the Escrow Agent shall promptly request alternative written investment instructions from the District with respect to escrowed funds which were to be invested in such Federal Securities (if any). The Escrow Agent shall follow such instructions and, upon the maturity of any such alternative investment, the Escrow Agent shall hold funds uninvested and without liability for interest until receipt of further written instructions from the District. In the absence of investment instructions from the District, the Escrow Agent shall not be responsible for the investment of such funds or interest thereon. The Escrow Agent may conclusively rely upon the District's selection of an alternative investment as a determination of the alternative investment's legality and suitability and shall not be liable for any losses related to the alternative investments or for compliance with any yield restriction applicable thereto.

SECTION 8. Indemnity. The District hereby assumes liability for, and agrees (whether or not any of the transactions contemplated hereby are consummated) to indemnify, protect, save and keep harmless the Escrow Agent and its respective successors, assigns, agents, officers, directors, employees and servants, from and against any and all liabilities, obligations, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements (including reasonable legal fees and disbursements) of whatever kind and nature which may be imposed on, incurred by, or asserted against, the Escrow Agent at any time (whether or not also indemnified against the same by the District or any other person under any other agreement or instrument, but without double indemnity) in any way relating to or arising out of the execution, delivery and performance of this Escrow Agreement, the establishment hereunder of the Series 2007B Bonds Escrow Fund, the acceptance of the cash and securities deposited therein, the purchase of the Federal Securities (if any), the retention of the Federal Securities (if any) or the proceeds thereof, if any, and any payment, transfer or other application of moneys or securities by the Escrow Agent in accordance with the provisions of this Escrow Agreement; provided, however, that the District shall not be required to indemnify the Escrow Agent against the Escrow Agent's own negligence or willful misconduct or the negligence or willful misconduct of the Escrow Agent's

employees or the willful breach by the Escrow Agent of the terms of this Escrow Agreement. In no event shall the District or the Escrow Agent be liable to any person by reason of the transactions contemplated hereby other than to each other as set forth in this Section. The indemnities contained in this Section shall survive the termination of this Escrow Agreement and the resignation or removal of the Escrow Agent.

SECTION 9. Responsibilities of Escrow Agent. The Escrow Agent shall not be held to any personal liability whatsoever, in tort, contract, or otherwise, in connection with the execution and delivery of this Escrow Agreement, the establishment of the Series 2007B Bonds Escrow Fund, the acceptance of the moneys or securities deposited therein, the purchase of the Federal Securities (if any), the retention of the Federal Securities (if any), or the proceeds thereof, the sufficiency of the Federal Securities (if any), or cash deposit to pay the Refunded Series 2007B Bonds or any payment, transfer or other application of moneys or obligations by the Escrow Agent in accordance with the provisions of this Escrow Agreement, or by reason of any nonnegligent act, non-negligent omission or non-negligent error of the Escrow Agent made in good faith in the conduct of its duties. The Escrow Agent shall not be liable for any special, indirect or consequential damages. The recitals of fact contained in the "Whereas" clauses herein shall be taken as the statements of the District, and the Escrow Agent assumes no responsibility for the correctness thereof or the correctness of any recitals or statements contained in the Refunded Series 2007B Bonds. The Escrow Agent makes no representation as to the validity of this Escrow Agreement as to the District and, except as otherwise provided herein, the Escrow Agent shall incur no liability with respect thereto. The Escrow Agent shall not be liable in connection with the performance of its duties under this Escrow Agreement except for its own negligence, willful misconduct or willful breach, and the duties and obligations of the Escrow Agent shall be determined by the express provisions of this Escrow Agreement. The Escrow Agent may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, attorneys, custodians or nominees appointed with due care, and shall not be responsible for any willful misconduct or negligence on the part of any agent, attorney, custodian or nominee so appointed. The Escrow Agent shall be under no obligation to inquire into or be in any way responsible for the performance or nonperformance by the District of its obligations. The Escrow Agent may consult with counsel, who may or may not be counsel to the District, and in reliance upon the written opinion of such counsel shall have full and complete authorization and protection in respect of any action taken, suffered or omitted by it in good faith in accordance therewith. Whenever the Escrow Agent shall deem it necessary or desirable that a matter be proved or established prior to taking, suffering, or omitting any action under this Escrow Agreement, such matter may be deemed to be conclusively established by a certificate signed by an officer of the District. No provision of this Escrow Agreement shall require the Escrow Agent to expend or risk its own funds or otherwise incur any financial liability in the performance or exercise of any of its duties hereunder, or in the exercise of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it. The Escrow Agent shall incur no liability for losses arising from any investment made pursuant to the provisions of this Escrow Agreement.

SECTION 10. <u>Resignation of Escrow Agent</u>. The Escrow Agent may at any time resign by giving thirty (30) days prior written notice to the District of such resignation. The District shall promptly appoint a successor Escrow Agent by the resignation date. Resignation of the

Escrow Agent will be effective only upon acceptance of appointment by a successor Escrow Agent. If the District does not appoint a successor, the Escrow Agent may at the expense of the District petition any court of competent jurisdiction for the appointment of a successor Escrow Agent, which court may thereupon, after such notice, if any, as it may deem proper and as may be required by law, appoint a successor Escrow Agent. After receiving a notice of resignation of Escrow Agent, the District may appoint a temporary Escrow Agent to replace the resigning Escrow Agent until the District appoints a successor Escrow Agent. Any such temporary Escrow Agent so appointed by the District shall immediately and without further action be superseded by the successor Escrow Agent so appointed.

SECTION 11. Amendments. This Escrow Agreement is made for the benefit of the District and the owners of the Refunded Series 2007B Bonds and it shall not be repealed, revoked, altered or amended without the written consent of all such owners, the Escrow Agent and the District; provided, however, that the District and the Escrow Agent may, without the consent of, or notice to, such owners, amend this Escrow Agreement or enter into such agreements supplemental to this Escrow Agreement as shall not adversely affect the rights of such owners and as shall not be inconsistent with the terms and provisions of this Escrow Agreement or the Indenture, for any one or more of the following purposes: (i) to cure any ambiguity or formal defect or omission in this Escrow Agreement; (ii) to grant to, or confer upon the Escrow Agent for the benefit of the owners of the Refunded Series 2007B Bonds, any additional rights, remedies, powers or authority that may lawfully be granted to, or conferred upon, such owners or the Escrow Agent; and (iii) to include under this Escrow Agreement additional funds, securities or properties. The Escrow Agent shall be entitled to rely conclusively upon an unqualified opinion of nationally recognized bond counsel with respect to compliance with this Section, including the extent, if any, to which any change, modification, addition or elimination affects the rights of the owners of the Refunded Series 2007B Bonds or that any instrument executed hereunder complies with the conditions and provisions of this Section.

SECTION 12. <u>Term.</u> This Escrow Agreement shall commence upon its execution and delivery and terminate on the later to occur of either (i) the date upon which the Refunded Series 2007B Bonds have been paid in accordance with this Escrow Agreement or (ii) the date upon which no unclaimed moneys remain on deposit with the Escrow Agent pursuant to Section 5(c) of this Escrow Agreement.

SECTION 13. <u>Compensation</u>. The Escrow Agent shall receive its reasonable fees and expenses as previously agreed to by the Escrow Agent and the District; provided, however, that under no circumstances shall the Escrow Agent be entitled to any lien whatsoever on any moneys or obligations in the Series 2007B Bonds Escrow Fund for the payment of fees and expenses for services rendered or expenses incurred by the Escrow Agent under this Escrow Agreement until payment or provision for payment in full of the Refunded Series 2007B Bonds.

SECTION 14. <u>Severability</u>. If any one or more of the covenants or agreements provided in this Escrow Agreement on the part of the District or the Escrow Agent to be performed should be determined by a court of competent jurisdiction to be contrary to law, such covenants or agreements shall be null and void and shall be deemed separate from the remaining covenants

and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Escrow Agreement.

SECTION 15. <u>Counterparts</u>. This Escrow Agreement may be executed in counterparts, any of which shall be regarded for all purposes as an original but all of which shall constitute and be but one and the same instrument.

SECTION 16. <u>Governing Law</u>. This Escrow Agreement shall be governed by and construed in accordance with the laws of the State of California.

SECTION 17. <u>Insufficient Funds</u>. If at any time the moneys and investments (if any) in the Series 2007B Bonds Escrow Fund, including the anticipated proceeds of and earnings thereon, if any, will not be sufficient to make all payments required by this Escrow Agreement, the Escrow Agent shall notify the District, in writing, immediately upon becoming aware of such deficiency, the amount thereof, and, if known to it, the reason therefor. Upon receipt of such notice, the District shall, as the case may be, promptly deposit with the Escrow Agent for deposit in the Series 2007B Bonds Escrow Fund the amount necessary to cure any such deficiency. The Escrow Agent shall have no further responsibility regarding any such deficiency.

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be executed by their duly authorized officers as of the date first above written.

EAST BAY MUNICIPAL UTILITY DISTRICT	
By:	
Director of Finance	
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Escrow Agent and as	
Trustee under the Indenture	
D.v.	

Vice President

SCHEDULE A

DESCRIPTION OF THE REFUNDED SERIES 2007B BONDS

Principal Maturity Date Amount (June 1) Outstanding		Principal Amount to be Redeemed	Interest Rate	CUSIP
2018	\$6,380,000	\$6,380,000	5.00%	271014QC9
2019	6.700.000	6.700.000	5.00	271014OD7

SCHEDULE B

FEDERAL SECURITIES

TYPE MATURITY DATE PAR AMOUNT COUPON

[None]

SCHEDULE C

REQUIREMENTS OF THE REFUNDED SERIES 2007B BONDS

		Called	Call	Total
Date	Interest	Principal	Premium	Requirements
//17		\$13,080,000	\$0	

NOTICE OF DEFEASANCE EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM SUBORDINATED REVENUE REFUNDING BONDS, SERIES 2007B

NOTICE IS HEREBY GIVEN to the owners of the above-captioned Bonds (the "Series 2007B Bonds") that the East Bay Municipal Utility District (the "District") has deposited with The Bank of New York Mellon Trust Company, N.A., the successor trustee for the Series 2007B Bonds (the "Trustee") under the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and the Trustee, as amended and supplemented, including by a Twelfth Supplemental Indenture, dated as of May 1, 2007 (collectively, the "Indenture"), cash in an amount determined to be sufficient to pay on _____, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$13,080,000 outstanding principal amount of the Series 2007B Bonds as more fully identified in the table below (the "Refunded Series 2007B Bonds"), together with accrued interest thereon.

Refunded Series 2007B Bonds

	Maturity			
	Date	Principal	Interest	CUSIP
_	(June 1)	Amount	Rate	Number
	2018	\$6,380,000	5.00%	271014QC9
	2019	6,700,000	5.00	271014QD7

DATED this ____ day of June, 2017.

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

CONDITIONAL NOTICE OF REDEMPTION OF EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM SUBORDINATED REVENUE REFUNDING BONDS, SERIES 2007B

NOTICE IS HEREBY GIVEN to the owners of the above-captioned bonds dated May 23, 2007 (the "Series 2007B Bonds") that, pursuant to the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as amended and supplemented, including by the Twelfth Supplemental Indenture, dated as of May 1, 2007, by and between the District and the Trustee (collectively, the "Indenture"), the District has directed the Trustee to call for redemption, on ______, 2017 (the "Redemption Date"), all of the outstanding Series 2007B Bonds, all as more fully identified below:

Refunded Series 2007B Bonds

	Principal		
Maturity Date	Amount	Interest	CUSIP
(June 1)	Refunded	Rate	Number
2018	\$6,380,000	5.00%	271014QC9
2019	6,700,000	5.00	271014QD7

Owners of the Series 2007B Bonds to be redeemed must present and surrender such Series 2007B Bonds on the Redemption Date at the applicable address of the Trustee set forth below:

First Class/Registered/Certified:	Express Delivery Only:	By Hand Only:
The Bank of New York Mellon	The Bank of New York	The Bank of New York Mellon
Global Corporate Trust	Mellon	Global Corporate Trust
P.O. Box 2320	Global Corporate Trust	Corporate Trust Window
Dallas, Texas 75221-2320	2001 Bryan Street, 9 th Floor	101 Barclay Street, 1st Floor East
	Dallas, Texas 75201	New York, New York 10286

PURSUANT TO THE TERMS OF THE INDENTURE, MONEYS SUFFICIENT FOR PAYMENT OF THE REDEMPTION PRICE MUST BE DEPOSITED WITH THE TRUSTEE ON OR BEFORE THE REDEMPTION DATE IN ORDER FOR THE BONDS TO BECOME DUE AND PAYABLE ON THE REDEMPTION DATE AND THE REDEMPTION OF THE BONDS ON THE REDEMPTION DATE IS EXPRESSLY CONDITIONAL UPON THE TIMELY DEPOSIT OF SUCH MONEYS. THE DISTRICT EXPECTS TO DEPOSIT ON OR BEFORE THE REDEMPTION DATE MONEYS TO PAY IN FULL THE REDEMPTION PRICE OF THE BONDS. IF FOR ANY REASON THE DISTRICT DOES NOT DEPOSIT ON OR BEFORE THE REDEMPTION DATE SUFFICIENT MONEYS TO PAY THE REDEMPTION PRICE OF THE BONDS, THIS NOTICE OF REDEMPTION WILL BE AUTOMATICALLY CANCELLED AND ANNULLED AND THE BONDS SHALL REMAIN OUTSTANDING PURSUANT TO THE INDENTURE. IN SUCH EVENT, ANY BONDS PRESENTED FOR PAYMENT (AS PROVIDED ABOVE) WILL BE RETURNED.

On, 2017, the Series 2007B Bonds to be redeemed will be payable at a redemption price of
100.0% of the principal amount together with interest accrued thereon to (but not including), 2017,
the date of redemption. On, 2017, if the deposit of moneys has been made as provided above, there
shall become due and payable upon each Series 2007B Bond to be redeemed, to the person whose name appears
on the registration books of the Trustee as the registered owner thereof, the redemption price thereof as set forth
above. From and after, 2017, interest on the Series 2007B Bonds to be redeemed will cease to accrue.

When inquiring about this redemption, please have the Series 2007B Bond number available. Please inform the customer service representative of the CUSIP number(s) of the affected Series 2007B Bonds. Our customer service number is 1-800-254-2826.

Important Notice

Under the Jobs and Growth Tax Relief Reconciliation Act of 2003, 28% will be withheld if tax identification number is <u>not</u> properly certified.

The CUSIP numbers have been assigned by an independent service for convenience of reference and none of the District, the Trustee or the Escrow Agent shall be held liable for any inaccuracy in any such CUSIP number.

DATED:	, 2017
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By: THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

ESCROW AGREEMENT RELATING TO THE DEFEASANCE OF A PORTION OF THE EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM SUBORDINATED REVENUE/REFUNDING BONDS, SERIES 2010A

THIS ESCROW AGREEMENT (the "Escrow Agreement"), dated as of June 1, 2017, is by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as escrow agent hereunder (the "Escrow Agent") and as trustee with respect to the Series 2010A Bonds referred to below (the "Trustee").

WITNESSETH:

WHEREAS, the District has previously authorized and issued its \$192,830,000 principal amount of East Bay Municipal Utility District Water System Subordinated Revenue/Refunding Bonds, Series 2010A, of which \$180,945,000 principal amount remains outstanding (the "Series 2010A Bonds"), pursuant to the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented, including as amended and supplemented by the Sixteenth Supplemental Indenture, dated as of February 1, 2010, by and between the District and the Trustee (collectively, the "Indenture");

WHEREAS, the District has determined to issue its \$______ aggregate principal amount of its East Bay Municipal Utility District Water System Revenue/Refunding Bonds, Series 2017B (the "Series 2017B Bonds"), pursuant to the Indenture, including as amended and supplemented by the Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, providing for the issuance of the Series 2017B Bonds, for the purpose, among others, of refunding the [\$173,925,000 principal amount of the outstanding Series 2010A Bonds maturing on and after June 1, 2021] (such portion of the Series 2010A Bonds to be refunded as more fully described in Schedule A hereto and hereinafter referred to as the "Refunded Series 2010A Bonds");

WHEREAS, by irrevocably depositing with the Escrow Agent a specified amount of the proceeds from the sale of the Series 2017B Bonds, together with certain other available funds, and directing the Escrow Agent to invest all or a portion of such amounts in certain investments satisfying the criteria set forth in Section 10.03 of the Indenture (herein, the "Federal Securities"), the Escrow Agent will have money sufficient to pay (i) interest on the Refunded Series 2010A Bonds becoming due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the Refunded Series 2010A Bonds on June 1, 2020 (the "Redemption Date");

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, the District and the Escrow Agent agree as follows:

SECTION 1. Deposit of Moneys. Simultaneously wit	h the delivery of the Series	2017B
Bonds, the District shall deposit with the Escrow Agent \$, representing \$	of
the proceeds of the sale of the Series 2017B Bonds, \$	of amounts released from	om the
Series 2010A Bond Reserve Fund for the Refunded Series	2010A Bonds, [and \$	of

amounts contributed by the District]; all to be held in irrevocable escrow by the Escrow Agent, separate and apart from other funds and accounts of the District and the Escrow Agent, in a fund hereby created and established to be known as the "Series 2010A Bonds Escrow Fund," to be applied solely as provided in this Escrow Agreement. The deposit is in a total amount which, taking into account the maturing principal of and interest on the Federal Securities to be purchased therefrom, has been calculated by [Barclays Capital Inc., as representative of the underwriters of the Series 2017B Bonds][Montague DeRose and Associates, LLC, as comunicipal advisor to the District], and verified by ______ (the "Verification Agent") to be sufficient to pay (i) interest on the Refunded Series 2010A Bonds becoming due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the \$_____ principal amount of the Refunded Series 2010A Bonds on June 1, 2020, the Redemption Date therefor.

The Escrow Agent hereby acknowledges receipt of such calculations prepared by [Barclays Capital Inc., as representative of the underwriters of the Series 2017B Bonds][Montague DeRose and Associates, LLC, as co-municipal advisor to the District], the mathematical accuracy of which has been verified by the Verification Agent in its report relating to the Refunded Series 2010A Bonds (the "Verification Report"), a copy of which has been provided to the Escrow Agent, and the Escrow Agent may rely upon the conclusion of such report to the effect that the amounts to be deposited in the Series 2010A Bonds Escrow Fund as described in this Section 1, and taking into account the maturing principal of and interest on the Federal Securities to be purchased therefrom, will be sufficient to pay interest on the Refunded Series 2010A Bonds becoming due on and prior to the Redemption Date, and to pay on the Redemption Date, the redemption price (*i.e.*, 100% of the principal amount) of the Refunded Series 2010A Bonds.

SECTION 2. <u>Investment of Moneys</u>. The Escrow Agent agrees to immediately invest any moneys deposited or transferred to the Series 2010A Bonds Escrow Fund in accordance with Section 1 hereof in the Federal Securities set forth in Schedule B hereto and to deposit such Federal Securities in the Series 2010A Bonds Escrow Fund. All other amounts in the Series 2010A Bonds Escrow Fund not so invested shall be held as cash.

SECTION 3. Reinvestment Requirements. In the event that the Escrow Agent receives any payment of principal or interest from the Federal Securities, prior to the date on which such payment is required for the purposes set forth herein, the Escrow Agent shall, at the written direction of the District, reinvest the amount of such payment, or any portion thereof, in noncallable bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America maturing not later than the date on which such payment or portion thereof is required for the purposes set forth in Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2010A Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, and provided the District has obtained and delivered to the Escrow Agent an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest on the Refunded Series 2010A Bonds or the Series 2017B Bonds for purposes of federal income taxation. Any interest income

resulting from investment or reinvestment of moneys pursuant to this Section 3 which is not required for the purposes set forth in this Section 3 or Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2010A Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, shall be paid to the District promptly upon the receipt of such interest income by the Escrow Agent. In the absence of such written direction, the Escrow Agent shall hold such amounts uninvested.

SECTION 4. Substitution of Securities. Upon the written request of the District, and subject to the conditions and limitations herein set forth and applicable governmental rules and regulations, the Escrow Agent shall sell, redeem or otherwise dispose of the Federal Securities, provided there are substituted therefor from the proceeds of such Federal Securities, bonds and other obligations which, as to principal and interest, constitute direct noncallable obligations of, or are unconditionally guaranteed by, the United States of America, but only after the District has obtained and delivered to the Escrow Agent (i) an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest payable on the Refunded Series 2010A Bonds or the Series 2017B Bonds for purposes of federal income taxation, and (ii) a report by the Verification Agent or another independent certified public accountant or firm of certified public accountants to the effect that such substitution and reinvestment will not adversely affect the sufficiency of the amounts of securities, investments and money in the Series 2010A Bonds Escrow Fund to pay the principal or redemption price of, and interest on, the Refunded Series 2010A Bonds in accordance with this Escrow Agreement. The Escrow Agent shall not be liable or responsible for any loss resulting from any reinvestment made pursuant to this Escrow Agreement and in full compliance with the provisions hereof.

SECTION 5. Payment of Refunded Series 2010A Bonds.

- (a) <u>Payment</u>. From the maturing principal of the Federal Securities and the investment income and other earnings thereon, if any, and the moneys on deposit in the Series 2010A Bonds Escrow Fund, the Escrow Agent shall apply the amounts on deposit in the Series 2010A Bonds Escrow Fund to pay (i) interest on the Refunded Series 2010A Bonds becoming due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the \$_____ principal amount of the Refunded Series 2010A Bonds on June 1, 2020, the Redemption Date therefor. The amounts required to be paid on the Refunded Series 2010A Bonds on each date of payment therefor are shown on Schedule C hereto. Any moneys remaining in the Series 2010A Bonds Escrow Fund after payment of the Refunded Series 2010A Bonds in full as provided in this Section 5(a) shall be transferred by the Escrow Agent to the trustee for the Series 2017B Bonds to be applied to the payment of interest on the Series 2017B Bonds.
- (b) <u>Irrevocable Instructions to Provide Notice</u>. The District hereby irrevocably instructs the Escrow Agent (as Trustee for the Refunded Series 2010A Bonds) to:
 - (1) provide, within three (3) business days of the date of deposit of amounts pursuant to Section 1 hereof, a notice substantially in the form of Exhibit A that an

irrevocable deposit has been made with the Escrow Agent and that the Refunded Series 2010A Bonds have been deemed to be paid in accordance with the Indenture, (i) by first-class mail to the registered owners of the Refunded Series 2010A Bonds and to Moody's, Standard & Poor's and Fitch (each as defined in the Indenture), (ii) by facsimile or other electronic means of communication and by first-class mail to the Securities Depository (as defined in the Indenture), and (iii) by electronic means of communication to the Municipal Securities Rulemaking Board ("MSRB") through the Electronic Municipal Market Access System (referred to as "EMMA"), at www.emma.msrb.org; and

(2) provide, at least thirty (30) days but not more than sixty (60) days prior to June 1, 2020 (*i.e.*, the Redemption Date), a notice substantially in the form of Exhibit B of the redemption of the Refunded Series 2010A Bonds to be redeemed on such date (i) by first-class mail to the registered owners of the Refunded Series 2010A Bonds and to Moody's, Standard & Poor's and Fitch, (ii) by facsimile or other electronic means of communication and by first-class mail to the Securities Depository and (iii) by electronic means of communication to the MSRB through EMMA, at www.emma.msrb.org, all in accordance with the Indenture.

The Escrow Agent hereby confirms that it will take all actions required to be taken by it under the Indenture and this Escrow Agreement in order to effectuate the defeasance, redemption and payment of the Refunded Series 2010A Bonds as provided herein.

- (c) <u>Unclaimed Moneys</u>. Any moneys which remain unclaimed for two years after the date such moneys have become due and payable hereunder shall be repaid by the Escrow Agent to the District, and the Escrow Agent shall thereupon be released and discharged with respect thereto, and the owners of the Refunded Series 2010A Bonds shall look only to the District for the payment of the Refunded Series 2010A Bonds; provided, however, that before making such repayment to the District, the Escrow Agent shall, at the expense of the District, cause to be mailed to the registered owners of any Refunded Series 2010A Bonds that have not been delivered for payment and cancellation, a notice that such money remains unclaimed and that, after a date set forth in the notice, which date shall not be less than thirty (30) days after the date of mailing of the notice, the balance of the money then unclaimed will be returned to the District.
- (d) <u>Priority of Payments</u>. The owners of the Refunded Series 2010A Bonds shall have a lien on moneys and securities in the Series 2010A Bonds Escrow Fund which are allocable and sufficient to repay the Refunded Series 2010A Bonds, in accordance with this Escrow Agreement, as verified by the Verification Report, until such moneys and such securities are used and applied as provided in this Escrow Agreement.
- (e) <u>Termination of Obligation</u>. As provided in the Indenture, upon deposit of moneys with the Escrow Agent in the Series 2010A Bonds Escrow Fund as set forth in Section 1 hereof and the purchase of the various Federal Securities as provided in Section 2 hereof, and notice of, or provision for notice of redemption having been given as set forth in Section 5(b) hereof, all liability of the District in respect of the Refunded Series 2010A Bonds shall cease, terminate, and be completely discharged and satisfied and the owners thereof shall be entitled to the payment of the redemption price thereof only out of the moneys deposited therefor as provided in this Escrow Agreement.

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SECTION 6. <u>Performance of Duties</u>. The Escrow Agent agrees to perform only the duties set forth herein and shall have no responsibility to take any action or omit to take any action not set forth herein.

SECTION 7. Escrow Agent's Authority and Duties in Making Investments. Except as provided in Sections 2, 3 and 4 hereof, the Escrow Agent shall have no power or duty to invest any funds held under this Escrow Agreement or to sell, transfer or otherwise dispose of the cash or the Federal Securities held hereunder.

With respect to any investments made by the Escrow Agent in accordance with this Escrow Agreement, the District acknowledges that to the extent regulations of the Comptroller of the Currency or other applicable regulatory entity grant the District the right to receive brokerage confirmations of security transactions as they occur, the District specifically waives receipt of such confirmations to the extent permitted by law. The Escrow Agent will furnish to the District periodic cash transaction statements which include detail for all investment transactions made by the Escrow Agent hereunder.

If the Escrow Agent learns that the Department of the Treasury or the Bureau of Public Debt will not, for any reason, accept a subscription for Federal Securities that is to be submitted pursuant to this Escrow Agreement, the Escrow Agent shall promptly request alternative written investment instructions from the District with respect to escrowed funds which were to be invested in such Federal Securities. The Escrow Agent shall follow such instructions and, upon the maturity of any such alternative investment, the Escrow Agent shall hold funds uninvested and without liability for interest until receipt of further written instructions from the District. In the absence of investment instructions from the District, the Escrow Agent shall not be responsible for the investment of such funds or interest thereon. The Escrow Agent may conclusively rely upon the District's selection of an alternative investment as a determination of the alternative investment's legality and suitability and shall not be liable for any losses related to the alternative investments or for compliance with any yield restriction applicable thereto.

SECTION 8. Indemnity. The District hereby assumes liability for, and agrees (whether or not any of the transactions contemplated hereby are consummated) to indemnify, protect, save and keep harmless the Escrow Agent and its respective successors, assigns, agents, officers, directors, employees and servants, from and against any and all liabilities, obligations, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements (including reasonable legal fees and disbursements) of whatever kind and nature which may be imposed on, incurred by, or asserted against, the Escrow Agent at any time (whether or not also indemnified against the same by the District or any other person under any other agreement or instrument, but without double indemnity) in any way relating to or arising out of the execution, delivery and performance of this Escrow Agreement, the establishment hereunder of the Series 2010A Bonds Escrow Fund, the acceptance of the cash and securities deposited therein, the purchase of the Federal Securities, the retention of the Federal Securities or the proceeds thereof, and any payment, transfer or other application of moneys or securities by the Escrow Agent in accordance with the provisions of this Escrow Agreement; provided, however, that the District shall not be required to indemnify the Escrow Agent against the Escrow Agent's own negligence or willful misconduct or the negligence or willful misconduct of the Escrow Agent's agents, officers, directors, employees or servants or the willful breach by the Escrow Agent or the

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Escrow Agent's agents, officers, directors, employees or servants of the terms of this Escrow Agreement. In no event shall the District or the Escrow Agent be liable to any person by reason of the transactions contemplated hereby other than to each other as set forth in this Section. The indemnities contained in this Section shall survive the termination of this Escrow Agreement and the resignation or removal of the Escrow Agent.

SECTION 9. Responsibilities of Escrow Agent. The Escrow Agent shall not be held to any personal liability whatsoever, in tort, contract, or otherwise, in connection with the execution and delivery of this Escrow Agreement, the establishment of the Series 2010A Bonds Escrow Fund, the acceptance of the moneys or securities deposited therein, the purchase of the Federal Securities, the retention of the Federal Securities, or the proceeds thereof, the sufficiency of the Federal Securities, or cash deposit to pay the Refunded Series 2010A Bonds or any payment, transfer or other application of moneys or obligations by the Escrow Agent in accordance with the provisions of this Escrow Agreement, or by reason of any non-negligent act, non-negligent omission or non-negligent error of the Escrow Agent made in good faith in the conduct of its duties. The Escrow Agent shall not be liable for any special, indirect or consequential damages. The recitals of fact contained in the "Whereas" clauses herein shall be taken as the statements of the District, and the Escrow Agent assumes no responsibility for the correctness thereof or the correctness of any recitals or statements contained in the Refunded Series 2010A Bonds. The Escrow Agent makes no representation as to the validity of this Escrow Agreement as to the District and, except as otherwise provided herein, the Escrow Agent shall incur no liability with respect thereto. The Escrow Agent shall not be liable in connection with the performance of its duties under this Escrow Agreement except for its own negligence, willful misconduct or willful breach, and the duties and obligations of the Escrow Agent shall be determined by the express provisions of this Escrow Agreement. The Escrow Agent may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, attorneys, custodians or nominees appointed with due care, and shall not be responsible for any willful misconduct or negligence on the part of any agent, attorney, custodian or nominee so appointed. The Escrow Agent shall be under no obligation to inquire into or be in any way responsible for the performance or nonperformance by the District of its obligations. The Escrow Agent may consult with counsel, who may or may not be counsel to the District, and in reliance upon the written opinion of such counsel shall have full and complete authorization and protection in respect of any action taken, suffered or omitted by it in good faith in accordance therewith. Whenever the Escrow Agent shall deem it necessary or desirable that a matter be proved or established prior to taking, suffering, or omitting any action under this Escrow Agreement, such matter may be deemed to be conclusively established by a certificate signed by an officer of the District. No provision of this Escrow Agreement shall require the Escrow Agent to expend or risk its own funds or otherwise incur any financial liability in the performance or exercise of any of its duties hereunder, or in the exercise of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it. The Escrow Agent shall incur no liability for losses arising from any investment made pursuant to the provisions of this Escrow Agreement.

Any company into which the Escrow Agent may be merged or converted or with which it may be consolidated or any company resulting from any merger, conversion or consolidation to which it shall be a party or any company to which the Escrow Agent may sell or transfer all or

substantially all of its corporate trust business shall be the successor to the Escrow Agent without the execution or filing of any paper or further act, anything herein to the contrary notwithstanding.

SECTION 10. Resignation of Escrow Agent. The Escrow Agent may at any time resign by giving thirty (30) days prior written notice to the District of such resignation. The District shall promptly appoint a successor Escrow Agent by the resignation date. Resignation of the Escrow Agent will be effective only upon acceptance of appointment by a successor Escrow Agent. If the District does not appoint a successor, the Escrow Agent may at the expense of the District petition any court of competent jurisdiction for the appointment of a successor Escrow Agent, which court may thereupon, after such notice, if any, as it may deem proper and as may be required by law, appoint a successor Escrow Agent. After receiving a notice of resignation of Escrow Agent, the District may appoint a temporary Escrow Agent to replace the resigning Escrow Agent until the District appoints a successor Escrow Agent. Any such temporary Escrow Agent so appointed by the District shall immediately and without further action be superseded by the successor Escrow Agent so appointed.

SECTION 11. Amendments. This Escrow Agreement is made for the benefit of the District and the owners of the Refunded Series 2010A Bonds and it shall not be repealed, revoked, altered or amended without the written consent of all such owners, the Escrow Agent and the District; provided, however, that the District and the Escrow Agent may, without the consent of, or notice to, such owners, amend this Escrow Agreement or enter into such agreements supplemental to this Escrow Agreement as shall not adversely affect the rights of such owners and as shall not be inconsistent with the terms and provisions of this Escrow Agreement or the Indenture, for any one or more of the following purposes: (i) to cure any ambiguity or formal defect or omission in this Escrow Agreement; (ii) to grant to, or confer upon the Escrow Agent for the benefit of the owners of the Refunded Series 2010A Bonds, any additional rights, remedies, powers or authority that may lawfully be granted to, or conferred upon, such owners or the Escrow Agent; and (iii) to include under this Escrow Agreement additional funds, securities or properties. The Escrow Agent shall be entitled to rely conclusively upon an unqualified opinion of nationally recognized bond counsel with respect to compliance with this Section, including the extent, if any, to which any change, modification, addition or elimination affects the rights of the owners of the Refunded Series 2010A Bonds or that any instrument executed hereunder complies with the conditions and provisions of this Section.

SECTION 12. <u>Term.</u> This Escrow Agreement shall commence upon its execution and delivery and terminate on the later to occur of either (i) the date upon which the Refunded Series 2010A Bonds have been paid in accordance with this Escrow Agreement or (ii) the date upon which no unclaimed moneys remain on deposit with the Escrow Agent pursuant to Section 5(c) of this Escrow Agreement.

SECTION 13. <u>Compensation</u>. The Escrow Agent shall receive its reasonable fees and expenses as previously agreed to by the Escrow Agent and the District; provided, however, that under no circumstances shall the Escrow Agent be entitled to any lien whatsoever on any moneys or obligations in the Series 2010A Bonds Escrow Fund for the payment of fees and

expenses for services rendered or expenses incurred by the Escrow Agent under this Escrow Agreement until payment or provision for payment in full of the Refunded Series 2010A Bonds.

SECTION 14. Severability. If any one or more of the covenants or agreements provided in this Escrow Agreement on the part of the District or the Escrow Agent to be performed should be determined by a court of competent jurisdiction to be contrary to law, such covenants or agreements shall be null and void and shall be deemed separate from the remaining covenants and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Escrow Agreement.

SECTION 15. <u>Counterparts</u>. This Escrow Agreement may be executed in counterparts, any of which shall be regarded for all purposes as an original but all of which shall constitute and be but one and the same instrument.

SECTION 16. <u>Governing Law</u>. This Escrow Agreement shall be governed by and construed in accordance with the laws of the State of California.

SECTION 17. <u>Insufficient Funds</u>. If at any time the moneys and investments in the Series 2010A Bonds Escrow Fund, including the anticipated proceeds of and earnings thereon will not be sufficient to make all payments required by this Escrow Agreement, the Escrow Agent shall notify the District, in writing, immediately upon becoming aware of such deficiency, the amount thereof, and, if known to it, the reason therefor. Upon receipt of such notice, the District shall, as the case may be, promptly deposit with the Escrow Agent for deposit in the Series 2010A Bonds Escrow Fund the amount necessary to cure any such deficiency. The Escrow Agent shall have no further responsibility regarding any such deficiency.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be executed by their duly authorized officers as of the date first above written.

EAST BAY MUNICIPAL UTILITY DISTRICT
By:
Director of Finance
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Escrow Agent and as
Trustee under the Indenture
D _{vv}

Vice President

SCHEDULE A

DESCRIPTION OF THE REFUNDED SERIES 2010A BONDS

{to be revised to reflect any maturities or portions not refunded}

		Principal		
Maturi	ty Date	Amount	Interest	
(Jur	ne 1)	Outstanding	Rate	CUSIP
[2	021	\$ 2,115,000	5.000%	271014SW3
20)22	1,180,000	5.000	271014SX1
20)23	1,115,000	5.000	271014SY9
20)24	1,225,000	5.000	271014SZ6
20)25	1,170,000	5.000	271014TA0
20)26	1,545,000	4.000	271014TB8
20)26	3,585,000	5.000	271014TC6
20)27	450,000	4.000	271014TD4
20)27	11,670,000	5.000	271014TE2
20)28	150,000	4.000	271014TF9
20	028	12,565,000	5.000	271014TG7
20)29	1,030,000	4.000	271014TH5
20)29	12,305,000	5.000	271014TJ1
20)30	950,000	4.000	271014TK8
20)30	14,325,000	5.000	271014TL6
20)31	16,020,000	5.000	271014TM4
20	$036^{(1)}$	92,025,000	5.000	271014TP7
20	$036^{(1)}$	500,000	4.375	271014TN2]

⁽¹⁾ Term Bond.

28160068.3 S-A-1

SCHEDULE B

FEDERAL SECURITIES

TYPE MATURITY DATE PAR AMOUNT COUPON

28160068.3 S-B-1

SCHEDULE C

REQUIREMENTS OF THE REFUNDED SERIES 2010A BONDS

Date	Interest	Maturing Principal	Called Principal	Call Premium	Total Requirements
12/01/17					
06/01/18					
12/01/18					
06/01/19					
12/01/19					
06/01/20			\$		

28160068.3 S-C-1

EXHIBIT A FORM OF DEFEASANCE NOTICE TO BE GIVEN

28160068.3 A-1

NOTICE OF PARTIAL DEFEASANCE EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM SUBORDINATED REVENUE/REFUNDING BONDS, SERIES 2010A

NOTICE IS HEREBY GIVEN to the owners of the above-captioned bonds (the "Series 2010A Bonds") that the East Bay Municipal Utility District (the "District") has deposited with The Bank of New York Mellon Trust Company, N.A., the trustee for the Series 2010A Bonds (the "Trustee") under the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and the Trustee, as amended and supplemented, including by a Sixteenth Supplemental Indenture, dated as of February 1, 2010 (collectively, the "Indenture"), cash and noncallable bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America, paying interest and principal in an amount which, together with the amounts held as cash, shall be sufficient to pay (i) interest on such portion of the Series 2010A Bonds as more fully identified in the table below (the "Refunded Series 2010A Bonds") as the same shall become due on and prior to June 1, 2020 and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the \$[173,925,000] principal amount of the Refunded Series 2010A Bonds on June 1, 2020 (the "Redemption Date").

Refunded Series 2010A Bonds

{to be revised to reflect any maturities or portions not refunded}

Maturity Date (June 1)	Principal Amount Outstanding	Interest Rate	CUSIP Number
[2021	\$ 2,115,000	5.000%	271014SW3
2022	1,180,000	5.000	271014SX1
2023	1,115,000	5.000	271014SY9
2024	1,225,000	5.000	271014SZ6
2025	1,170,000	5.000	271014TA0
2026	1,545,000	4.000	271014TB8
2026	3,585,000	5.000	271014TC6
2027	450,000	4.000	271014TD4
2027	11,670,000	5.000	271014TE2
2028	150,000	4.000	271014TF9
2028	12,565,000	5.000	271014TG7
2029	1,030,000	4.000	271014TH5
2029	12,305,000	5.000	271014TJ1
2030	950,000	4.000	271014TK8
2030	14,325,000	5.000	271014TL6
2031	16,020,000	5.000	271014TM4
$2036^{(1)}$	92,025,000	5.000	271014TP7
$2036^{(1)}$	500,000	4.375	271014TN2]

⁽¹⁾ Term Bond.

In accordance with the Indenture, all liability of the District in respect of such Refunded Series 2010A Bonds shall cease and terminate and be completely discharged and satisfied and all payments of the interest on, and the principal or redemption price of, such Refunded Series 2010A Bonds shall be paid only from moneys on deposit with the Trustee and available as aforesaid.

DATED this ____ day of June, 2017.

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

EXHIBIT B

FORM OF REDEMPTION NOTICE TO BE GIVEN

28160068.3 B-1

NOTICE OF REDEMPTION OF EAST BAY MUNICIPAL UTILITY DISTRICT WATER SYSTEM SUBORDINATED REVENUE/REFUNDING BONDS, SERIES 2010A

NOTICE IS HEREBY GIVEN to the owners of the above-captioned bonds dated February 3, 2010 (the "Series 2010A Bonds") that, pursuant to the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as amended and supplemented, including by the Sixteenth Supplemental Indenture, dated as of February 1, 2010, by and between the District and the Trustee (collectively, the "Indenture"), the District has directed the Trustee to call for redemption, on June 1, 2020 (the "Redemption Date"), [a portion of] the outstanding principal amount of the Series 2010A Bonds, all as more fully identified below:

Refunded Series 2010A Bonds

{to be revised to reflect any maturities or portions not refunded}

	Principal		
Maturity Date	Amount	Interest	CUSIP
(June 1)	Refunded	Rate	Number
[2021	\$ 2,115,000	5.000%	271014SW3
2022	1,180,000	5.000	271014SX1
2023	1,115,000	5.000	271014SY9
2024	1,225,000	5.000	271014SZ6
2025	1,170,000	5.000	271014TA0
2026	1,545,000	4.000	271014TB8
2026	3,585,000	5.000	271014TC6
2027	450,000	4.000	271014TD4
2027	11,670,000	5.000	271014TE2
2028	150,000	4.000	271014TF9
2028	12,565,000	5.000	271014TG7
2029	1,030,000	4.000	271014TH5
2029	12,305,000	5.000	271014TJ1
2030	950,000	4.000	271014TK8
2030	14,325,000	5.000	271014TL6
2031	16,020,000	5.000	271014TM4
$2036^{(1)}$	92,025,000	5.000	271014TP7
$2036^{(1)}$	500,000	4.375	271014TN2]

⁽¹⁾ Term Bond.

Owners of the Series 2010A Bonds to be redeemed must present and surrender such Series 2010A Bonds on the Redemption Date at the applicable address of the Trustee set forth below:

First Class/Registered/Certified:	Express Delivery Only:	By Hand Only:
The Bank of New York Mellon	The Bank of New York	The Bank of New York Mellon
Global Corporate Trust	Mellon	Global Corporate Trust
P.O. Box 2320	Global Corporate Trust	Corporate Trust Window
Dallas, Texas 75221-2320	2001 Bryan Street, 9 th Floor	101 Barclay Street, 1 st Floor East
	Dallas, Texas 75201	New York, New York 10286

On June 1, 2020, the Series 2010A Bonds to be redeemed will be payable at a redemption price equal to 100.0% of the principal amount thereof, together with interest accrued and unpaid thereon to (but not including) June 1, 2020, the date of redemption, without premium. On June 1, 2020, there shall become due and payable upon each Series 2010A Bond to be redeemed, to the person whose name appears on the registration books of the Trustee as the registered owner thereof, the redemption price thereof as set forth above. From and after June 1, 2020, interest on the Series 2010A Bonds to be redeemed will cease to accrue.

When inquiring about this redemption, please have the Series 2010A Bond number available. Please inform the customer service representative of the CUSIP number(s) of the affected Series 2010A Bonds. Our customer service number is 1-800-254-2826.

Important Notice

Under the Jobs and Growth Tax Relief Reconciliation Act of 2003, 28% will be withheld if tax identification number is <u>not</u> properly certified.

The CUSIP numbers have been assigned by an independent service for convenience of reference and none of the District, the Trustee or the Escrow Agent shall be held liable for any inaccuracy in any such CUSIP number.

DATED:, 20	20
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By: THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (this "Disclosure Agreement"), dated _______, 2017, is executed and delivered by the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee") in connection with the issuance of \$______ aggregate principal amount of Water System Revenue Bonds, Series 2017A (Green Bonds) and \$______ aggregate principal amount of Water System Revenue/Refunding Bonds, Series 2017B (collectively, the "Bonds"). The Bonds are being issued pursuant to a Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and the Trustee, as amended and supplemented, including as amended and supplemented by the Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Bonds (collectively, the "Indenture"). In connection therewith the District and the Trustee covenant and agree as follows:

- Section 1. <u>Purpose of this Disclosure Agreement</u>. This Disclosure Agreement is being executed and delivered by the District and the Trustee for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriter (as defined herein) in complying with Securities and Exchange Commission Rule 15c2-12(b)(5).
- Section 2. <u>Definitions</u>. In addition to the definitions set forth above and in the Indenture, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this section, the following capitalized terms shall have the following meanings:

"Annual Report" shall mean any Annual Report provided by the District pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

"Beneficial Owner" shall mean any person who (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries); or (b) is treated as the owner of any Bonds for federal income tax purposes.

"Disclosure Representative" shall mean the Director of Finance or the Treasury Manager of the District or a designee of the Director of Finance, or such other officer or employee as the District shall designate in writing to the Trustee from time to time.

"Dissemination Agent" shall mean the Trustee, acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated in writing by the District and which has filed with the Trustee a written acceptance of such designation.

"Holder" shall mean either the registered owners of the Bonds or, if the Bonds are registered in the name of The Depository Trust Company or another recognized depository, any applicable participant in such depository system.

"Listed Event" shall mean any of the events listed in Section 5(a) of this Disclosure Agreement.

"MSRB" shall mean the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934 or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at http://emma.msrb.org.

"Official Statement" shall mean the Official Statement for the Bonds dated _______, 2017, as it may be updated prior to the delivery of the Bonds.

"Participating Underwriter" shall mean any of the underwriters of the Bonds listed on the cover page of the Official Statement required to comply with the Rule in connection with offering of the Bonds.

"Rule" shall mean Rule 15c2-12(b)(5) adopted by the SEC under the Securities Exchange Act of 1934, as the same may be amended from time to time.

"SEC" shall mean the United States Securities and Exchange Commission.

Section 3. <u>Provision of Annual Reports.</u>

- (a) The District shall, or shall cause the Dissemination Agent to, not later than December 31 of each year in which the Bonds are outstanding, commencing with the report for the 2016-17 Fiscal Year (which is due not later than December 31, 2017), provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement. The Annual Report must be submitted in electronic format, accompanied by such identifying information as prescribed by the MSRB. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Agreement; *provided* that if the audited financial statements of the District are not available by the date required above for the filing of the Annual Report, the District shall submit the audited financial statements as soon thereafter as available. If the District's Fiscal Year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(c).
- (b) If the District is unable to provide to the MSRB an Annual Report by the date required in subsection (a), the District shall send to the MSRB a notice in substantially the form attached hereto as Exhibit A.
 - (c) The Dissemination Agent shall:
 - (i) determine the electronic filing address of, and then-current procedures for submitting Annual Reports to, the MSRB each year prior to the date for providing the Annual Report; and
 - (ii) file a report with the District and (if the Dissemination Agent is not the Trustee, the Trustee) certifying that the Annual Report has been provided to the MSRB pursuant to this Disclosure Agreement, and stating the date it was provided.
- Section 4. <u>Content of Annual Reports</u>. The District's Annual Report shall contain or include by reference the following categories or similar categories of information updated to incorporate information for the most recent fiscal or calendar year, as applicable (the tables referred to below are those appearing in the Official Statement relating to the Bonds):
- (a) The audited financial statements of the District for the prior Fiscal Year, prepared in accordance with Generally Accepted Accounting Principles, as promulgated, to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the District's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available;

- (b) A table showing the Water Production (including annual production and average production per day) for the preceding Fiscal Year;
- (c) A table showing Water Sales Revenues, Consumption and Number of Connections by Customer Type for the preceding Fiscal Year;
 - (d) A table showing Water System Sources of Funds by Source;
- (e) A table showing Water System Rates and Charges for the preceding Fiscal Year (as well as average rate increases);
 - (f) A table showing Outstanding Water System Debt as of the preceding Fiscal Year;
- (g) A table showing water revenues, operating and maintenance expenses, debt service on water revenue bonds and debt service coverage for the water revenue bonds for the most recent Fiscal Year; and
 - (h) Any material changes in the sources of water supply.

Financial and operating information relating to the District referenced in items 3(b)-(h) above may be updated from time to time, and such updates may involve displaying data in a different format or table or eliminating data that is no longer material.

Any or all of the items listed above may also be included by specific reference to other documents, including official statements of debt issues of the District or related public entities, which have been submitted to the MSRB or the SEC. If any document included by reference is a final official statement, it must be available from the MSRB. The District shall clearly identify each such other document so included by reference.

Section 5. Reporting of Significant Events.

- (a) Pursuant to the provisions of this section, upon the occurrence of any of the following events (in each case to the extent applicable) with respect to the Bonds, the District shall give, or cause to be given by so notifying the Dissemination Agent in writing and instructing the Dissemination Agent to give, notice of the occurrence of such event, in each case, pursuant to Section 5(c) hereof:
 - 1. principal or interest payment delinquencies;
 - 2. non-payment related defaults, if material;
 - 3. modifications to the rights of the Bondholders, if material;
 - 4. optional, contingent or unscheduled calls, if material, and tender offers;
 - 5. defeasances;
 - 6. rating changes;
 - 7. adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds;

- 8. unscheduled draws on the debt service reserves reflecting financial difficulties;
- 9. unscheduled draws on the credit enhancements reflecting financial difficulties;
- 10. substitution of the credit or liquidity providers or their failure to perform;
- 11. release, substitution or sale of property securing repayment of the Bonds, if material;
- 12. bankruptcy, insolvency, receivership or similar proceedings of the District, which shall occur as described below;
- 13. appointment of a successor or additional trustee or the change of name of a trustee, if material, or;
- 14. the consummation of a merger, consolidation, or acquisition involving the District or the sale of all or substantially all of the assets of the Water System of the District other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material.

For these purposes, any event described in item 12 of this Section 5(a) is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the District in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the District, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the District.

- (b) Upon receipt of notice from the District and instruction by the District to report the occurrence of any Listed Event, the Dissemination Agent shall provide notice thereof to the MSRB in accordance with Section 5(c) hereof. In the event the Dissemination Agent shall obtain actual knowledge of the occurrence of any of the Listed Events, the Dissemination Agent shall, immediately after obtaining such knowledge, contact the Disclosure Representative, inform such person of the event, and request that the District promptly notify the Dissemination Agent in writing whether or not to report the event pursuant to Section 5(c). For purposes of this Disclosure Agreement, "actual knowledge" of the occurrence of such Listed Event shall mean actual knowledge by the Dissemination Agent, if other than the Trustee, and if the Dissemination Agent is the Trustee, then by the officer at the corporate trust office of the Trustee with regular responsibility for the administration of matters related to the Indenture. The Dissemination Agent shall have no responsibility to determine the materiality, if applicable, of any of the Listed Events.
- (c) The District, or the Dissemination Agent, if the Dissemination Agent has been instructed by the District to report the occurrence of a Listed Event, shall file a notice of such occurrence with the MSRB in a timely manner not more than ten (10) business days after the occurrence of the event.
- Section 6. <u>Termination of Reporting Obligation</u>. The District's obligations under this Disclosure Agreement shall terminate with respect to all Bonds upon the maturity, defeasance, prior

redemption, acceleration or payment in full of all of the Bonds and with respect to any Bonds upon the maturity, defeasance, prior redemption or payment in full of such Bonds.

- Section 7. <u>Dissemination Agent</u>. The District may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. If at any time there is not any other designated Dissemination Agent, the Trustee, upon notice from the District, shall be the Dissemination Agent. The initial Dissemination Agent shall be the Trustee. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the District pursuant to this Disclosure Agreement. The Dissemination Agent shall receive compensation for the services provided pursuant to this Disclosure Agreement.
- Section 8. <u>Amendment; Waiver</u>. Notwithstanding any other provision of this Disclosure Agreement, the District and the Dissemination Agent may amend this Disclosure Agreement (and, to the extent that any such amendment does not materially change or increase its obligations hereunder, the Dissemination Agent shall agree to any amendment so requested by the District), and any provision of this Disclosure Agreement may be waived; *provided*, that the following conditions are satisfied:
- (a) If the amendment or waiver relates to the provisions of Section 3(a), Section 4 or Section 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;
- (b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and
- (c) The amendment or waiver does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Holders or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Agreement, the District shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the District. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under Section 5(c), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

- Section 9. <u>Filings with the MSRB</u>. All information, operating data, financial statements, notices and other documents provided to the MSRB in accordance with this Disclosure Agreement shall be provided in an electronic format prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.
- Section 10. <u>Additional Information</u>. Nothing in this Disclosure Agreement shall be deemed to prevent the District from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If the District chooses to include any information in any Annual

Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Agreement, the District shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

Section 11. <u>Default</u>. In the event of a failure of the District or the Dissemination Agent to comply with any provision of this Disclosure Agreement, the Trustee may (and, at the request of any Participating Underwriter or the Holders of at least 25% of the aggregate principal amount of Outstanding Bonds and upon provision of indemnification satisfactory to the Trustee, shall), or any Holder or Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District or the Dissemination Agent, as the case may be, to comply with its obligations under this Disclosure Agreement. A default under this Disclosure Agreement shall not be deemed an Event of Default under the Indenture, and the sole remedy under this Disclosure Agreement in the event of any failure of the District or the Dissemination Agent to comply with this Disclosure Agreement shall be an action to compel performance hereunder.

Section 12. <u>Duties, Immunities and Liabilities of Trustee and Dissemination Agent.</u> Article VIII of the Indenture is hereby made applicable to this Disclosure Agreement as if the Disclosure Agreement were (solely for this purpose) contained in the Indenture. The Dissemination Agent shall be entitled to the protections and limitations on liability afforded to the Trustee thereunder. The Dissemination Agent (if other than the Trustee in its capacity as Dissemination Agent) shall have only such duties as are specifically set forth in this Disclosure Agreement, and the District agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys fees) of defending against any claim of liability, but excluding any loss, expense and liabilities due to the Dissemination Agent's negligence or willful misconduct. The obligations of the District under this Section 12 shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

Section 13. <u>Notices</u>. Any notices or communications to or among any of the parties to this Disclosure Agreement may be given as follows:

To the District:

To the Dissemination Agent:

East Bay Municipal Utility District 375 Eleventh Street, MS 801 Oakland, California 94607-4240 Attention: Debt Administrator The Bank of New York Mellon Trust Company, N.A. 100 Pine Street, Suite 3150 San Francisco, California 94111

Phone: 510-287-0248 Fax: 510-287-0293 Phone: 415-263-2420 Fax: 415-399-1647

Section 14. <u>Beneficiaries</u>. This Disclosure Agreement shall inure solely to the benefit of the District, the Trustee, the Dissemination Agent, the Participating Underwriters and the Holders and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

Section 15. <u>Counterparts</u>. This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

	SS WHEREOF, this Disclosum heir duly authorized represer	ure Agreement has been executed on behalf of the District ntatives.
Dated:, 201	7	EAST BAY MUNICIPAL UTILITY DISTRICT
		By:
		Sophia D. Skoda Director of Finance
Dated:, 201	17	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee
		By: Vice President

EXHIBIT A

NOTICE TO MSRB OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer:	EAST BAY MUNICIPAL UTILITY DISTRICT
Name of Bond Issue:	\$ Water System Revenue Bonds, Series 2017A (Green Bonds) and \$ Water System Revenue/Refunding Bonds, Series 2017B
Date of Issuance:	, 2017
not provided an Annual Continuing Disclosure New York Mellon Trus of the Twenty-Eighth Sthe Trustee, supplement 1990, as supplemented	EREBY GIVEN that the East Bay Municipal Utility District (the "District") had Report with respect to the above-named Bonds as required by Section 3(a) of the Agreement, dated, 2017, by and between the District and The Bank of the Company, N.A., as trustee (the "Trustee") and in accordance with Section 43.14 supplemental Indenture, dated as of June 1, 2017, by and between the District and the Water System Subordinated Revenue Bond Indenture, dated as of April 1 and amended, by and between the District and the Trustee, providing for the The District anticipates that the Annual Report will be filed by
Dated:	, 20
	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee on behalf of the District
	By: Authorized Officer
	Authorized Officer

cc: East Bay Municipal Utility District

PRELIMINARY OFFICIAL STATEMENT DATED MAY ____, 2017

NEW ISSUE - BOOK ENTRY ONLY

See "RATINGS" herein.

In the opinion of Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Underwriters, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2017 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and is exempt from State of California personal income taxes. In the further opinion of Special Tax Counsel, interest on the Series 2017 Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Special Tax Counsel observes that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. Special Tax Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Series 2017 Bonds. See "TAX MATTERS."

[DISTRICT LOGO]

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California)

\$____*
Water System Revenue Bonds,
Series 2017A
(Green Bonds)

Water System Revenue/Refunding Bonds, Series 2017B

Dated: Date of Delivery

Due: June 1, as shown on the inside cover pages

This cover page contains certain information for general reference only. It is not intended to be a summary of the security or terms of this issue. Investors are advised to read the entire Official Statement to obtain information essential to the making of an informed investment decision. Capitalized terms used on this cover page and not otherwise defined shall have the meanings set forth herein.

The East Bay Municipal Utility District (the "District") is issuing its Water System Revenue Bonds, Series 2017A (Green Bonds) (the "Series 2017A Bonds") and its Water System Revenue/Refunding Bonds, Series 2017B (the "Series 2017B Bonds" and, together with the Series 2017A Bonds, the "Series 2017 Bonds") pursuant to a Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Series 2017 Bonds (collectively, the "Indenture"). The Series 2017 Bonds of each Series will be issued in fully-registered form, without coupons, initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Series 2017 Bonds. Beneficial ownership interests in the Series 2017 Bonds may be purchased in book-entry form only in denominations of \$5,000 principal amount or any integral multiple thereof. Interest on the Series 2017 Bonds is payable semiannually on June 1 and December 1 of each year, commencing December 1, 2017. Principal is payable on June 1 of the years set forth on the inside front cover pages. The principal or redemption price of, and interest on, the Series 2017 Bonds are payable by the Trustee to DTC, which is obligated in turn to remit such principal or redemption price and interest to the DTC participants for subsequent disbursement to the beneficial owners of the Series 2017 Bonds. See APPENDIX E – "DTC AND THE BOOK-ENTRY ONLY SYSTEM."

The Series 2017 Bonds are subject to redemption prior to maturity as more fully described herein. See "THE SERIES 2017 BONDS – Redemption."

The Series 2017 Bonds are being issued for the purpose of (i) providing moneys to finance and/or reimburse the District for certain costs of improvements to the Water System of the District, (ii) refunding all or a portion of various series of the District's outstanding Water System revenue bonds, and (iii) paying costs of issuance in connection with the Series 2017 Bonds, as described herein. See "PLAN OF FINANCE."

The Series 2017 Bonds are special obligations of the District, payable solely from and secured by a pledge of Subordinated Water Revenues as more fully described herein. Subordinated Water Revenues generally consist of the District's Water Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) remaining after the payment of all Water Operation and Maintenance Costs. The Series 2017 Bonds have been issued on parity with the District's Water System Revenue Bonds and Parity Debt heretofore or hereafter issued, as more fully described herein, including certain payment obligations of the District under interest rate swap agreements entered into by the District in connection therewith. There are no Senior Water Bonds remaining outstanding and the District has covenanted that it will not issue any Senior Water Bonds in the future. The District also operates a Wastewater System. The Series 2017 Bonds are not payable from or secured by the revenues of the Wastewater System of the District. Neither the full faith and credit nor the taxing power of the District is pledged to the payment of the Series 2017 Bonds or the interest thereon.

MATURITY SCHEDULES (SEE INSIDE COVER)

The Series 2017 Bonds will be offered when, as and if issued, subject to the approval of validity by Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the District by its General Counsel and for the Underwriters by Orrick, Herrington & Sutcliffe LLP, San Francisco, California. Montague DeRose and Associates, LLC and Backstrom McCarley Berry & Co., LLC are serving as co-municipal advisors to the District in connection with the Series 2017 Bonds. It is anticipated that the Series 2017 Bonds will be available for delivery through the facilities of DTC in New York, New York by Fast Automated Securities Transfer (FAST) on or about June _____, 2017.

	Ba
BofA Merrill Lynch	

Goldman, Sachs & Co.

Dated: _____, 2017

*

Preliminary, subject to change.

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California)

MATURITY SCHEDULES*

\$* Water System Revenue Bonds, Series 2017A (Green Bonds)					
	\$	_* Serial Series 201	7A Bonds		
Maturity Date (June 1)*	Principal Amount [*]	Interest Rate	Price or Yield	CUSIP [†]	

\$______% Term Series 2017A Bonds due June 1, 20____, Yield _____%; CUSIP[†]: _____

^{*} Preliminary, subject to change.

CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services, managed by S&P Capital IQ on behalf of the American Bankers Association. CUSIP numbers have been assigned by an independent company not affiliated with the District or the Underwriters and are included solely for the convenience of the holders of the Series 2017A Bonds. Neither the District nor the Underwriters is responsible for the selection or use of these CUSIP numbers and no representation is made as to their correctness on the Series 2017A Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2017A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2017A Bonds.

\$____* Water System Revenue/Refunding Bonds, Series 2017B

Maturity Date	Principal	Interest	Price or	
(June 1)*	Amount*	Rate	Yield	\textit{CUSIP}^\dagger

* Serial Series 2017B Bonds

\$ % Term Series 2017B Bonds due June 1, 20 , Yield %; CUSIP [†] :	\$	% Term Series 2017B Bonds due June 1	. 20 . Yi	ield %:	CUSIP [†] :
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^{*} Preliminary, subject to change.

CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services, managed by S&P Capital IQ on behalf of the American Bankers Association. CUSIP numbers have been assigned by an independent company not affiliated with the District or the Underwriters and are included solely for the convenience of the holders of the Series 2017B Bonds. Neither the District nor the Underwriters is responsible for the selection or use of these CUSIP numbers and no representation is made as to their correctness on the Series 2017B Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2017B Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2017B Bonds.

No dealer, broker, salesperson or other person has been authorized by the District to give any information or to make any representation other than as set forth herein and, if given or made, such other information or representation must not be relied upon as having been authorized by the District. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2017 Bonds by a person in any jurisdiction in which it is unlawful for such person to make such an offer, solicitation or sale. This Official Statement is not to be construed as a contract with the purchasers of the Series 2017 Bonds. Statements contained in this Official Statement which involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as representations of facts.

The information set forth in this Official Statement has been obtained from official sources and other sources which are believed to be reliable, but it is not guaranteed as to accuracy or completeness. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall under any circumstances create any implication that there has been no change in the affairs of the District since the date hereof.

The Underwriters have provided the following sentence for inclusion in this Official Statement:

The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

This Official Statement, including any supplement or amendment hereto, is intended to be deposited with the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access (EMMA) website. The District also maintains a website. However, the information presented therein is not part of this Official Statement and must not be relied upon in making an investment decision with respect to the Series 2017 Bonds.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2017 BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

CERTAIN STATEMENTS CONTAINED IN THIS OFFICIAL STATEMENT REFLECT NOT HISTORICAL FACTS BUT FORECASTS AND "FORWARD-LOOKING STATEMENTS." NO ASSURANCE CAN BE GIVEN THAT THE FUTURE RESULTS DISCUSSED HEREIN WILL BE ACHIEVED, AND ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THE FORECASTS DESCRIBED HEREIN. IN THIS RESPECT, THE WORDS "ESTIMATE", "PROJECT", "ANTICIPATE", "EXPECT", "INTEND", "BELIEVE" AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. ALL PROJECTIONS, FORECASTS, ASSUMPTIONS, EXPRESSIONS OF OPINIONS, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS ARE EXPRESSLY QUALIFIED IN THEIR ENTIRETY BY THE CAUTIONARY STATEMENTS SET FORTH IN THIS OFFICIAL STATEMENT.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for purposes of, and as that term is defined in, Securities and Exchange Commission Rule 15c2-12.

EAST BAY MUNICIPAL UTILITY DISTRICT

Alameda and Contra Costa Counties, California 375 Eleventh Street Oakland, California 94607 (866) 403-2683

Board of Directors

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

Management

Alexander R. Coate, General Manager
Craig S. Spencer, General Counsel
Sophia D. Skoda, Director of Finance
Xavier J. Irias, Director of Engineering and Construction
Richard G. Sykes, Director of Water and Natural Resources
Michael J. Wallis, Director of Operations and Maintenance
Eileen M. White, Director of Wastewater
Rischa S. Cole, Secretary of the District
D. Scott Klein, Controller
Dari Barzel, Treasury Manager
Travis George, Debt Administrator

Co-Bond Counsel

Norton Rose Fulbright US LLP Los Angeles, California Curls Bartling P.C. Oakland, California

Co-Municipal Advisors

Montague DeRose and Associates, LLC Walnut Creek, California

Backstrom McCarley Berry & Co., LLC San Francisco, California

Trustee

The Bank of New York Mellon Trust Company, N.A. San Francisco, California

Verification Agent

[To come]

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OFFICIAL STATEMENT

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California)

\$_____*
Water System Revenue Bonds,
Series 2017A
(Green Bonds)

Water System Revenue/Refunding Bonds, Series 2017B

INTRODUCTION

This Introduction is not a summary of this Official Statement, and is qualified by more complete and detailed information contained in the entire Official Statement. A full review should be made of the entire Official Statement, including the cover page and attached appendices. The offering of Series 2017 Bonds to potential investors is made only by means of the entire Official Statement. Certain definitions of capitalized terms used and not defined herein are set forth in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

Purpose

The purpose of this Official Statement, which includes the cover page and appendices hereto, is to set forth certain information concerning the East Bay Municipal Utility District (the "District"), the water supply, treatment and distribution system owned by the District (the "Water System" or the "System"), and System finances, in connection with the sale of the District's \$_____* Water System Revenue Bonds, Series 2017A (Green Bonds) (the "Series 2017A Bonds") and its \$_____* Water System Revenue/Refunding Bonds, Series 2017B (the "Series 2017B Bonds" and, together with the Series 2017A Bonds, the "Series 2017 Bonds"). The Series 2017 Bonds are being issued pursuant to the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by the Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, relating to the Series 2017 Bonds (as so amended and supplemented, the "Indenture").

The Series 2017 Bonds are being issued for the purpose of (i) providing moneys to finance and/or reimburse the District for certain costs of improvements to the Water System of the District, (ii) refunding all or a portion of various series of the District's outstanding Water System revenue bonds (such bonds being refunded, the "Refunded Bonds"), and (iii) paying costs incidental to the issuance of the Series 2017 Bonds. See "PLAN OF FINANCE" and APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – THE WATER SYSTEM – Capital Improvement Program."

The District

The District is a municipal utility district, created in 1923 by vote of the electorate in portions of Alameda and Contra Costa Counties in the State of California (the "State"). The District is formed under the authority of the Municipal Utility District Act, constituting Division 6 of the Public Utilities Code of the State, commencing with Section 11501 (the "Municipal Utility District Act"). Pursuant to the

*

^{*} Preliminary, subject to change.

Municipal Utility District Act, the District is empowered to own and operate the Water System. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)." The District also operates a wastewater system (the "Wastewater System"). The District's Wastewater System treats and disposes of sewage from a portion of the area within the District, which is designated as Special District No. 1.

The Series 2017 Bonds are not payable from or secured by the revenues of the Wastewater System of the District.

Security for the Series 2017 Bonds

The Series 2017 Bonds are special obligations of the District, payable solely from and secured by a pledge of the Subordinated Water Revenues of the District, as defined in the Indenture. Subordinated Water Revenues generally consist of the District's Water Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) remaining after the payment of (a) all Water Operation and Maintenance Costs and (b) all amounts required to be paid under the District's Senior Water Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Senior Water Bonds. There are no Senior Water Bonds currently outstanding and the District has covenanted pursuant to the Eighteenth Supplemental Indenture, dated as of September 15, 2010 (the "Eighteenth Supplemental Indenture") that it will not issue any Senior Water Bonds in the future. Prior to the date of execution and delivery of the Eighteenth Supplemental Indenture, all Water System revenue bonds of the District issued under the Indenture were designated "Water System Subordinated Revenue Bonds." Pursuant to the Eighteenth Supplemental Indenture, any Water System revenue bonds of the District issued (or remarketed or otherwise reoffered) under the Indenture following the execution and delivery of the Eighteenth Supplemental Indenture are designated "Water System Revenue Bonds" in order to reflect that the lien of the Senior Water Bonds has been closed. All Outstanding Water System revenue bonds issued under the Indenture (howsoever designated), together with any additional Water System revenue bonds hereafter issued under the Indenture are secured on parity by Subordinated Water Revenues and are collectively referred to herein as the "Water System Revenue Bonds." See "SECURITY FOR THE SERIES 2017 BONDS – Pledge of Subordinated Water Revenues."

The Series 2017 Bonds are secured on a parity with the District's other Water System Revenue Bonds to be Outstanding upon the delivery thereof, together with any additional Water System Revenue Bonds hereafter issued, with certain scheduled payments that are payable by the District with respect to certain interest rate swap agreements as described under "SECURITY FOR THE SERIES 2017 BONDS – Outstanding Water System Revenue Obligations – *Interest Rate Swap Agreements*" and with certain outstanding State Loans as described in APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Outstanding Debt," and with any other Parity Debt heretofore or hereafter incurred in accordance with the Indenture. See "SECURITY FOR THE SERIES 2017 BONDS – Outstanding Water System Revenue Obligations," and "– Issuance of Additional Water System Revenue Bonds and Parity Debt; Junior and Subordinate Obligations." As of May 1, 2017, the District had Outstanding \$2,271,510,000 aggregate principal amount of Water System Revenue Bonds. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Outstanding Debt" and "– Variable Rate and Swap Obligations." See also "PLAN OF FINANCE – Refunding of the Refunded Bonds."

The Sixteenth Supplemental Indenture dated as of February 1, 2010 (the "Sixteenth Supplemental Indenture") includes a number of amendments to the Indenture in the manner and effective as of the date described under "AMENDMENTS TO THE INDENTURE."

NEITHER THE FULL FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT IS PLEDGED TO THE PAYMENT OF THE SERIES 2017 BONDS OR THE INTEREST THEREON.

Rate Covenant

The District covenants under the Indenture that it will at all times, while any of the Water System Revenue Bonds (including the Series 2017 Bonds) remain Outstanding, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Water System so as to yield Water Revenues in each Fiscal Year sufficient so that the Subordinated Water Revenues for such year shall be at least equal to 1.1 times the amount of Debt Service on all Water System Revenue Bonds and Parity Debt for such Fiscal Year. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Covenants." See also "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS."

Continuing Disclosure

Pursuant to a Continuing Disclosure Agreement, dated the date of delivery of the Series 2017 Bonds, by and between the District and the Trustee, as dissemination agent, the District will covenant and agree for the benefit of the holders and beneficial owners of the Series 2017 Bonds to provide certain financial information and operating data relating to the District and the Water System by not later than 180 days following the end of the District's Fiscal Year (which currently begins on July 1 and ends on June 30 of each year) (the "Annual Report"), commencing with the Annual Report for Fiscal Year 2016-17, and to provide notices of the occurrence of certain specified events. See "CONTINUING DISCLOSURE." These covenants have been made in order to assist the Underwriters in complying with Securities and Exchange Commission Rule 15c2-12(b)(5). See also APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

As of the date hereof, the District is in compliance in all material respects with its continuing disclosure undertakings for the last five years. Filings through EMMA are linked to a particular issue of obligations by CUSIP number (which is subject to change after the issuance of obligations as a result of various subsequent actions). The District uses its best efforts to confirm that each report filed through EMMA is linked to all the correct 9-digit CUSIP numbers. However, as a technical matter, it has come to the District's attention that certain filings during the past five years (primarily certain Annual Reports), when made, were not appropriately linked to all applicable CUSIP numbers. The District has since linked the applicable filings to the additional CUSIPs.

Professionals Involved in the Issue

The Bank of New York Mellon Trust Company, N.A. serves as Trustee under the Indenture. Certain legal matters incident to the authorization, issuance and sale of the Series 2017 Bonds are subject to the approval of Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel. Certain legal matters will be passed upon for the District by its General Counsel and for the Underwriters by Orrick, Herrington & Sutcliffe LLP, San Francisco, California. Montague DeRose and Associates, LLC, Walnut Creek, California, and Backstrom McCarley Berry & Co., LLC, San Francisco, California, are serving as co-municipal advisors to the District in connection with the issuance of the Series 2017 Bonds.

Summaries Not Definitive

The summaries and references to all documents, statutes, reports and other instruments referred to herein do not purport to be complete, comprehensive or definitive, and each such summary or reference is qualified in its entirety by reference to each such document, statute, report or instrument. The capitalization of any word not conventionally capitalized or otherwise defined herein, indicates that such word is defined in the Indenture and, as used herein, has the meaning given to it in the Indenture. Unless otherwise indicated, all financial and statistical information herein has been provided by the District.

All references to and summaries of the Indenture, the Escrow Agreements and all documents, statutes, reports and other instruments referred to herein are qualified in their entirety by reference to the full Indenture, the Escrow Agreements and each such document, statute, report or instrument, respectively, copies of which are available for inspection at the offices of the District in Oakland, California, and will be available from the Trustee upon request and payment of duplication costs. Forward-looking statements in this Official Statement are subject to risks and uncertainties. Actual results may vary from forecasts or projections contained herein if events and circumstances do not occur as projected, and such variances may be material.

Additional Information

The District regularly prepares a variety of publicly available reports, including audits, budgets and related documents. Any Series 2017 Bondholder may obtain a copy of any such report, as available, from the Trustee or the District. Additional information regarding this Official Statement may be obtained by contacting the Trustee or Sophia D. Skoda, Director of Finance, East Bay Municipal Utility District, 375 Eleventh Street, Oakland, California 94607, (510) 287-0231.

THE DISTRICT

The District is a municipal utility district, created in 1923 by vote of the electorate in portions of Alameda and Contra Costa Counties in the State of California. The District is formed under the authority of the Municipal Utility District Act. Under the Municipal Utility District Act, municipal utility districts are empowered to acquire, construct, own, operate or control works for supplying the district and public agencies in the district with light, water, power, heat, transportation, telephone service or other means of communications, means for the collection, treatment or disposition of garbage, sewage or refuse matter, and public recreation facilities appurtenant to its reservoirs and may do all things necessary and convenient to the full exercise of powers granted in the Municipal Utility District Act. The District presently exercises only those functions relating to water supply, power generation and recreational facilities through its Water System, and, within an area known as Special District No. 1, sewerage and wastewater interception, treatment and disposal, and power generation through its Wastewater System. Special District No. 1 covers only a portion of the service area of the District. The District presently does not intend to exercise other functions. Such other functions and the related facilities, if exercised, would not constitute part of the Water System or the Wastewater System.

For information on the District, the Water System and its finances and operations, see APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)" and APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

PLAN OF FINANCE

Purpose of the Series 2017 Bonds

Series 2017A Bonds. The Series 2017A Bond proceeds will be used to (i) provide moneys to finance and/or to reimburse the District for certain costs of improvements to the Water System, and (ii) to pay a portion of the costs of issuance in connection with the Series 2017 Bonds.

Series 2017B Bonds. The Series 2017B Bond proceeds will be used to (i) provide moneys to finance and/or to reimburse the District for certain costs of improvements to the Water System of the District, (ii) refund (a) all of the District's Water System Subordinated Revenue Refunding Bonds, Series 2007B (the "Refunded 2007B Bonds") maturing on June 1, 2018 and June 1, 2019, and (b) a portion of the District's Water System Subordinated Revenue/Refunding Bonds, Series 2010A (the "Refunded Series 2010A Bonds," and together with the Refunded Series 2007B Bonds, the "Refunded Bonds"), and (iii) pay a portion of the costs of issuance in connection with the Series 2017 Bonds.

Financing of Capital Improvements

General. The improvements to be financed with proceeds of the Series 2017 Bonds have been and are being undertaken as a part of the District's capital improvement program. For additional information regarding the District's current capital improvement program, and a description of the major programs and projects included therein, see APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – Capital Improvement Program."

Series 2017A Bonds Designation as Green Bonds. The District has designated the Series 2017A Bonds as "Green Bonds" to allow investors to invest directly in bonds that finance environmentally beneficial projects. The District considers projects that are designed to meet one or more of the following criteria to be "green" projects: (i) maintain water quality; (ii) improve water use efficiency, including conservation through reduced water loss; (iii) improve biodiversity and ecosystem quality; (iv) protect against flooding; (v) reduce pollution; (vi) improve resilience (adaptation) to climate change; (vii) reduce the combustion of fossil fuels; (viii) reduce greenhouse gas emission; (ix) implement "reduce, reuse, recycle" practices in preference to raw materials; or (x) adhere to sustainable purchasing guidelines.

District Water System projects that include these attributes generally fall into the following categories:

• Clean Water and Drinking Water.

Projects in this category are designed to maintain or improve the quality of drinking water and reduce pollution in the District's water supply according to State and federal standards. These types of projects primarily include rehabilitation and modernization improvements to water treatment plants such as ozone system upgrades and replacement of filter underdrains and control systems, reservoir improvements, rehabilitation and maintenance, and watershed management activities that protect source water quality.

• Water Supply and Conservation.

Projects in this category are designed to improve water supply reliability, preserve current water entitlements, secure additional water supplies or promote water use efficiency. These types of projects may include pipeline replacements and improvements, replacement of polybutylene service laterals, infrastructure renewals, transmission and

distribution system upgrades, canal relining, water conservation programs, and groundwater and recycled water projects.

• Protection against Flooding.

This category includes projects which prevent an uncontrolled release of reservoir water. These types of projects may include seismic safety evaluations and dam freeboard increases to improve seismic safety, reservoir embankment upgrades and foundation improvements.

• Renewable Energy and Energy Efficiency.

This category includes projects designed to reduce greenhouse gas emissions and energy use across District facilities. Projects in this category may include renewable energy facilities, and pressure zone improvements involving replacement or improvement of pumping plants.

• Sustainable Land Use and Biodiversity Conservation.

Projects in this category are designed to improve biodiversity and keep natural ecosystems functioning and healthy, including through sensitive species and habitat protection and enhancement measures. These types of projects may include watershed land acquisitions, habitat restoration projects, the purchase and installation of equipment needed to maintain and operate fish hatchery infrastructure, the purchase of equipment to meet the fisheries monitoring and assessment requirements in the Mokelumne River, additional Endangered Species Act listings, and proposed changes to Sacramento - San Joaquin Delta operations.

Proceeds of the Series 2017A Bonds are expected to be used to reimburse the District for the costs of some or all of such types of green projects. See also APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – THE WATER SYSTEM – Capital Improvement Program."

The District has promoted principles of sustainability for a number of years. The District initially adopted a Sustainability Policy, District Policy 7.05, in 1994. The District's current Sustainability Policy provides that it is the policy of the District to provide reliable, high-quality drinking water and wastewater service through sustainable operations, maintenance, planning, design, and construction activities that avoid, minimize or mitigate adverse effects to the economy, environment, employees, and the public. The District's current Sustainability Policy further provides for District staff to annually report to the Board summarizing the status of the District's sustainability efforts. On April 28, 2015, the District Board approved District Guidance for Issuing Green Bonds (the "District's Green Bond Guidance"). The District's Green Bond Guidance identifies the criteria (described above) that the District expects to take into consideration in identifying the types of "green" projects the costs of which may be funded (or reimbursed to the District) from the proceeds of Green Bonds. The District's Green Bonds Guidance further provides that in identifying potential projects for Green Bond financing, the District's aim should be towards including projects that best meet one or more of the identified criteria and avoid those projects that appear marginal or that have unresolved sustainability issues.

The proceeds of the Series 2017A Bonds will be deposited into a separately labeled account by the District and allocated to expenditures (or reimbursement of prior expenditures) for capital improvement projects identified by the District as satisfying its criteria for green projects. A list of the particular projects, which are considered by the District to be "green" projects, which the District expects

to be funded with (or reimbursed from) proceeds of Series 2017A Bonds is set forth in APPENDIX G – ANTICIPATED SERIES 2017A GREEN BOND PROJECTS.

The terms "Green Bonds" and "green project" are neither defined in nor related to provisions in the Indenture. The use of such terms herein is for identification purposes only and is not intended to provide or imply that an owner of the Series 2017A Bonds is entitled to any additional security other than as provided in the Indenture. The purpose of labeling the Series 2017A Bonds as "Green Bonds" is, as noted, to allow owners of the Series 2017A Bonds to invest directly in bonds that will finance environmentally beneficial projects. The District assumes no obligation to ensure that these projects comply with the principles of green projects as such principles may hereafter evolve.

The Series 2017A Bonds will not constitute "exempt facility bonds" issued to finance "qualified green building and sustainable design projects" within the meaning of Section 142(1) of the Code.

The Series 2017B Bonds are not being designated as "Green Bonds." The repayment obligations of the District with respect to the Series 2017 Bonds are not conditioned on the completion of any particular project or the satisfaction of any certification relating to the status of the Series 2017A Bonds as Green Bonds, and owners of the Green Bonds do not assume any specific project risk related to any of the projects funded thereby.

Refunding of the Refunded Bonds

The District's Water System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds") were issued on May 23, 2007 in the aggregate principal amount of \$54,790,000 to refund certain Bonds previously issued by the District. As of May 1, 2017, \$19,155,000 aggregate principal amount of the Series 2007B Bonds remained outstanding. A portion of the proceeds of the Series 2017B Bonds will be used to redeem on _______, 2017*, the \$13,080,000 outstanding aggregate principal amount of the Series 2007B Bonds maturing on June 1, 2018 and June 1, 2019. The \$6,075,000 principal amount of Series 2007B Bonds maturing on June 1, 2017 will be paid on such maturity date from funds held by the District for such purpose.

The District's Water System Subordinated Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds") were issued on February 3, 2010 in the aggregate principal amount of \$192,830,000 to refund certain Bonds previously issued by the District and to refinance improvements to the Water System through the retirement of a portion of the District's then outstanding extendable municipal commercial paper notes issued for such purpose. As of May 1, 2017, \$183,400,000 aggregate principal amount of the Series 2010A Bonds remained outstanding. A portion of the proceeds of the Series 2017B Bonds will be used to refund \$______ principal amount of the outstanding Series 2010A Bonds maturing on and after June 1, 2021. \$2,455,000 principal amount of the Series 2010A Bonds mature on June 1, 2017, and will be paid on such maturity date from funds held by the District for such purpose. Following such payment and upon the issuance of the Series 2017B Bonds and the defeasance of the Series 2010A Bonds to be refunded thereby, \$_____ aggregate principal amount of the Series 2010A Bonds will remain outstanding.

{reference to 2012A Bonds to be added, if applicable}

The following table details the Series, maturity dates and principal amounts of the Water System Revenue Bonds to be refunded with the proceeds of the Series 2017B Bonds.

82496583.4

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^{*} Preliminary; subject to change.

Refunded Bonds*

Series and Maturity of Bonds	Issue Date	CUSIP (Base No.: 271014)	Outstanding Principal Amount	Interest Rate	Principal Amount to be Refunded	Redemption Date	Redemption Price
Water System Subordinated Revenue Refunding Bonds, Series 2007B	05/23/07						
June 1, 2018 June 1, 2019 Total		QC9 QD7	\$ 6,380,000 <u>6,700,000</u> \$13,080,000	5.000% 5.000		, 2017	100% 100
Water System Subordinated Revenue/Refunding Bonds, Series 2010A	02/03/10						
June 1, 2021		SW3	\$ 2,115,000	5.000%		June 1, 2020	100%
June 1, 2022		SX1	1,180,000	5.000		June 1, 2020	100
June 1, 2023		SY9	1,115,000	4.000		June 1, 2020	100
June 1, 2024		SZ6	1,225,000	3.000		June 1, 2020	100
June 1, 2025		TA0	1,170,000	5.000		June 1, 2020	100
June 1, 2026		TB8	1,545,000	5.000		June 1, 2020	100
June 1, 2026		TC6	3,585,000	4.000		June 1, 2020	100
June 1. 2027		TD4	450,000	5.000		June 1, 2020	100
June 1. 2027		TE2	11,670,000	5.000		June 1, 2020	100
June 1, 2028		TF9	150,000	4.000		June 1, 2020	100
June 1, 2028		TG7	12,565,000	5.000		June 1, 2020	100
June 1, 2029		TH5	1,030,000	4.000		June 1, 2020	100
June 1, 2029		TJ1	12,305,000	5.000		June 1, 2020	100
June 1, 2030		TK8	950,000	4.000		June 1, 2020	100
June 1, 2030		TL6	14,325,000	5.000		June 1, 2020	100
June 1, 2031		TM4	16,020,000	5.000		June 1, 2020	100
June 1, 2036 ⁽¹⁾		TP7	92,025,000	5.000		June 1, 2020	100
June 1, 2036 ⁽¹⁾		TN2	500,000	4.375		June 1, 2020	100
Total			\$173,925,000				

⁽¹⁾ Term Bonds.

^{*} Preliminary, subject to change.

The refunding of the Refunded Bonds will be effected by depositing a portion of the proceeds of the Series 2017B Bonds, together with certain other available moneys, into an escrow fund for the related Series of Refunded Bonds (the "2007B Escrow Fund" and the "2010A Escrow Fund," respectively, and collectively, the "Escrow Funds") created and established under the terms of the escrow agreement for the related Series of Refunded Bonds, each dated as of June 1, 2017 (the "2007B Escrow Agreement" and the "2010A Escrow Agreement," and collectively, the "Escrow Agreements"), each by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent (the "Escrow Agent"). The proceeds and other available moneys deposited into the 2007B Escrow Fund will be held by the Escrow Agent in cash and will be in an amount sufficient to pay the redemption price (i.e., 100% of the principal amount) of the Refunded 2007B Bonds to be redeemed on ______, 2017*, plus accrued interest thereon to such redemption date. The proceeds and other available moneys deposited into the 2010A Escrow Fund will be held by the Escrow Agent in cash or will be invested in direct noncallable obligations of, or unconditionally guaranteed by, the United States of America ("Federal Securities"), which Federal Securities, if any, will bear interest at such rates and will be scheduled to mature at such times and in such amounts so that, when paid in accordance with their terms, such amounts, together with any amounts held as cash in the 2010A Escrow Fund, will be sufficient to pay (a) interest on the Refunded 2010A Bonds as the same shall become due on and before June 1, 2020, the redemption date for such Refunded 2010A Bonds and (b) the redemption price (i.e., 100% of the principal amount) of the Refunded 2010A Bonds to be redeemed on such redemption date.

Upon the foregoing deposits and investment and compliance with or provision for compliance with certain notice requirements set forth in the Indenture, the liability of the District with respect to the Refunded Bonds will cease and the Refunded Bonds will no longer be Outstanding under the Indenture except that the Owners of the Refunded Bonds will be entitled to payment thereof solely from the amounts on deposit in the respective Escrow Fund held by the Escrow Agent therefor.

^{*} Preliminary; subject to change.

ESTIMATED SOURCES AND USES OF FUNDS

The estimated sources and uses of funds with respect to the Series 2017 Bonds are as follows:

	Series 2017A Bonds	Series 2017B Bonds	Total
Sources			
Principal Amount	\$	\$	\$
Other Available Funds ⁽¹⁾			
[Net] Original Issue Premium			
Total	\$	\$	\$
Uses			
Deposit to Series 2017A (Green	\$	\$	\$
Bonds) Construction Account ⁽²⁾			
Deposit to Series 2017B			
Construction Account) ⁽²⁾			
Deposit to 2007B Escrow Fund			
Deposit to 2010A Escrow Fund			
Underwriters' Discount			
Costs of Issuance ⁽³⁾			
Total	\$	\$	\$

⁽¹⁾ Includes [amounts contributed by the District and] amounts transferred from the Series 2010A Bond Reserve Fund relating to the Refunded 2010A Bonds.

THE SERIES 2017 BONDS

General Description

The Series 2017 Bonds of each Series will be issued in the respective aggregate principal amounts, will bear interest at the respective rates and will mature in the respective years and amounts all as set forth on the inside cover pages of this Official Statement. The Series 2017 Bonds of each Series will be issued in denominations of \$5,000 principal amount or any integral multiple thereof. The Series 2017 Bonds of each Series will be dated, and shall bear interest from, their date of delivery. Interest on the Series 2017 Bonds of each Series is payable on each June 1 and December 1, commencing on December 1, 2017 and will be computed on the basis of a 360-day year of twelve 30-day months. The Series 2017 Bonds will be issued as fully registered bonds in book-entry form only and when delivered will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Series 2017 Bonds. So long as DTC, or its nominee, Cede & Co., is the registered owner of the Series 2017 Bonds, all payments of principal of or redemption price of, and interest on, the Series 2017 Bonds will be made directly to DTC, which is obligated in turn to remit such principal or redemption price and interest to its DTC participants for subsequent disbursement to the beneficial owners of the Series 2017 Bonds. See APPENDIX E – "DTC AND THE BOOK-ENTRY ONLY SYSTEM."

⁽²⁾ Includes amounts to be reimbursed to the District for prior expenditures.

⁽³⁾ Includes legal, financing and consulting fees, rating agency fees, printing costs and other miscellaneous expenses.

Redemption

Series 2017A Bonds

Optional Redemption. The Series 2017A Bonds maturing on or before June 1, 20__ are not subject to optional redemption prior to maturity. The Series 2017A Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20___, at a redemption price equal to the principal amount of Series 2017A Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

Mandatory Redemption. The Series 2017A Bonds maturing on June 1, 20__ are subject to redemption prior to their stated maturity, in part, by lot, from Mandatory Sinking Account Payments as specified below at the principal amount of each Series 2017A Bond so redeemed plus accrued interest thereon to but not including the date fixed for redemption, without premium.

Term Series 2017A Bonds due June 1, 20____

Mandatory Sinking Account Payment Dates (June 1)

†

Mandatory Sinking Account Payments

† Final Maturity.

Upon an optional redemption of a portion of any term Series 2017A Bond, the District shall provide the Trustee with a revised schedule of the foregoing Mandatory Sinking Account Payments which shall provide for a reduction in the amount of one or more of the Mandatory Sinking Account Payments coming due on such term Series 2017A Bond after such redemption as specified by the District in such

Series 2017B Bonds

schedule to reflect such redeemed portion.

Optional Redemption. The Series 2017B Bonds maturing on or before June 1, 20__ are not subject to optional redemption prior to maturity. The Series 2017B Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20___, at a redemption price equal to the principal amount of Series 2017B Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

Mandatory Redemption. The Series 2017B Bonds maturing on June 1, 20__ are subject to redemption prior to their stated maturity, in part, by lot, from Mandatory Sinking Account Payments as specified below at the principal amount of each Series 2017B Bond so redeemed plus accrued interest thereon to but not including the date fixed for redemption, without premium.

Term Series 2017B Bonds due June 1, 20

Mandatory Sinking Account Payment Dates (June 1) Mandatory Sinking Account Payments

Upon an optional redemption of a portion of any term Series 2017B Bond, the District shall provide the Trustee with a revised schedule of the foregoing Mandatory Sinking Account Payments which shall provide for a reduction in the amount of one or more of the Mandatory Sinking Account Payments coming due on such term Series 2017B Bond after such redemption as specified by the District in such schedule to reflect such redeemed portion.

Notice of Redemption. Notice of redemption of the Series 2017 Bonds shall be given by the Trustee, not less than 20 nor more than 60 days prior to the redemption date, to DTC or, if the book-entry system as described in Appendix E has been discontinued, by first-class mail, to the respective Owners of any Series 2017 Bonds designated for redemption in the form and otherwise in accordance with the terms of the Indenture. Failure by any Owner to receive notice or any defect in any such notice shall not affect the sufficiency of the proceedings for redemption.

In the event of an optional redemption of Series 2017 Bonds, if the District shall not have deposited or otherwise made available to the Trustee the money required for the payment of the redemption price of the Series 2017 Bonds to be redeemed at the time of the mailing of notice of redemption, such notice of redemption shall state that the redemption is expressly conditioned upon the timely deposit of sufficient funds therefor with the Trustee.

Selection of Bonds for Redemption. Whenever provision is made in the Indenture for the redemption of less than all of a Series of the Series 2017 Bonds, the maturities of such Series of the Series 2017 Bonds to be redeemed shall be specified by the District. In the case of partial redemption of less than all of a Series of the Series 2017 Bonds of any maturity, the Trustee will select the Series 2017 Bonds of such maturity to be redeemed from all Series 2017 Bonds of such Series of the respective maturity not previously called for redemption, in authorized denominations, by lot, in any manner which the Trustee in its sole discretion deems appropriate and fair.

Effect of Redemption. If notice of redemption is given as provided in the Indenture, and moneys for payment of the Redemption Price of, together with interest accrued to the redemption date on, the Series 2017 Bonds (or portions thereof) so called for redemption is held by the Trustee, then on the redemption date designated in such notice, the Series 2017 Bonds (or portions thereof) so called for redemption will become due and payable at the Redemption Price specified in the notice of redemption, together with interest accrued thereon to the date fixed for redemption, interest on such Series 2017

[†] Final Maturity.

Bonds so called for redemption will cease to accrue, the Series 2017 Bonds (or portions thereof) will cease to be entitled to any benefit or security under the Indenture and the owners of the Series 2017 Bonds (or portions thereof) will have no rights in respect thereof except to receive payment of the Redemption Price plus accrued interest.

SECURITY FOR THE SERIES 2017 BONDS

General

Authority for Issuance. The Series 2017 Bonds are authorized for issuance pursuant to the Municipal Utility District Act and laws of the State amendatory thereof or supplemental thereto, including the Revenue Bond Law of 1941, as made applicable by Article 6a of Chapter 6 of Division 6 of the Municipal Utility District Act, and with respect to any portion of the Series 2017 Bonds issued to refund outstanding Bonds of the District, Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State (collectively, the "Act"), resolutions adopted by the District and the Indenture.

Amendments to the Indenture. The Sixteenth Supplemental Indenture includes a number of amendments to the Indenture in the manner and effective as of the date described under "AMENDMENTS TO THE INDENTURE." See also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

Pledge of Subordinated Water Revenues

Pursuant to the Indenture, the District has irrevocably pledged to the payment of the principal or redemption price of and interest on the Water System Revenue Bonds, including the Series 2017 Bonds and any Parity Debt, all Subordinated Water Revenues (as hereinafter defined) and amounts held by the Trustee under the Indenture (except for amounts held in the Rebate Fund) subject only to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein.

"Subordinated Water Revenues" is generally defined in the Indenture to mean, for any fiscal period, the sum of (a) 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, together with income from the investment of any moneys in any fund or account established under the Senior Water Bond Resolution relating to the District's Senior Water Bonds or under the Indenture (collectively, the "Water Revenues") for such fiscal period, plus (b) the amounts, if any, withdrawn by the District from the Rate Stabilization Fund established under the Senior Water Bond Resolution for treatment as Water Revenues for such fiscal period, less the sum of (c) all Water Operation and Maintenance Costs (as hereinafter defined) for such fiscal period and (d) the amounts, if any, withdrawn by the District from Water Revenues for such fiscal period for deposit in the Rate Stabilization Fund, and (e) all amounts required to be paid under the Senior Water Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Senior Water Bonds as the same become due and payable. There are no Senior Water Bonds currently outstanding and the District has covenanted pursuant to the Eighteenth Supplemental Indenture that it will not issue any Senior Water Bonds in the future. See "—Outstanding Water System Revenue Obligations — No Senior Water Bonds" below.

The District may deposit into, or withdraw amounts from time to time held in, the Rate Stabilization Fund within 120 days after the end of the applicable Fiscal Year. Amounts deposited into the Rate Stabilization Fund shall be deducted from Water Revenues for such Fiscal Year. Amounts withdrawn from the Rate Stabilization Fund shall be included in Water Revenues for such Fiscal Year and

may be applied for any purposes for which Water Revenues generally are available. All interest and earnings upon deposits in the Rate Stabilization Fund will not be held therein, but will be treated and accounted for as Water Revenues. The amount on deposit in the Rate Stabilization Fund as of May 1, 2017 was \$95,000,000.

"Water Operation and Maintenance Costs" is generally defined in the Indenture to mean the reasonable and necessary costs of maintaining and operating the Water System, calculated on sound accounting principles, including (among other things) the reasonable expenses of management, repair and other expenses necessary to maintain and preserve the Water System in good repair and working order, and reasonable amounts for administration, overhead, insurance, taxes and other similar costs, but excluding in all cases depreciation and obsolescence charges or reserves therefor and amortization of intangibles or other bookkeeping entries of a similar nature, and excluding all costs paid from the proceeds of taxes received by the District.

"Parity Debt" means any indebtedness, installment sale obligation, lease obligation or other obligation of the District for borrowed money or interest rate swap agreement having an equal lien and charge upon the Subordinated Water Revenues and therefore payable on a parity with the Water System Revenue Bonds (whether or not any Water System Revenue Bonds are Outstanding).

The Series 2017 Bonds are not payable from or secured by the revenues of the Wastewater System of the District.

The Series 2017 Bonds are special obligations of the District, payable solely from and secured by a pledge of Subordinated Water Revenues. Neither the full faith and credit nor the taxing power of the District is pledged to the payment of the Series 2017 Bonds or the interest thereon.

Allocation of Subordinated Water Revenues Under the Indenture

In accordance with the Indenture, all Subordinated Water Revenues, when and as received by the District, shall be deposited into a fund to be established and maintained by the District designated as the "Revenue Fund." So long as any Water System Revenue Bonds are Outstanding, the District will transfer the moneys in the Revenue Fund into the following respective funds (established, maintained and held by the Trustee in trust for the benefit of the Owners of the Water System Revenue Bonds) in the following order of priority; provided, that on a parity with such deposits the Trustee may set aside or transfer amounts with respect to outstanding Parity Debt as provided in the proceedings for such Parity Debt (which deposits shall be proportionate in the event such amounts are insufficient to provide for all deposits required as of any date to be made with respect to the Water System Revenue Bonds and such Parity Debt):

Interest Fund. The District will transfer to the Trustee to be set aside in the Interest Fund on or before the Business Day prior to each interest payment date an amount equal to the interest becoming due and payable on the Outstanding Water System Revenue Bonds (excluding any interest for which there are moneys on deposit in the Interest Fund from the proceeds of any Series of Water System Revenue Bonds or other source to pay such interest).

Principal Fund; Sinking Accounts. The District shall transfer to the Trustee to be set aside in the Principal Fund on or before the Business Day prior to each principal or sinking account payment date an amount equal to the amount of Bond Obligation (as defined in the Indenture) plus the Mandatory Sinking Account Payments becoming due and payable on such date. All Mandatory Sinking Account

Payments shall be made without priority of any payment into any one such sinking account over any other such payment.

Bond Reserve Funds. Upon the occurrence of any deficiency in any bond reserve fund established pursuant to the Indenture for any Series of Water System Revenue Bonds, the District shall transfer to the Trustee and the Trustee shall set aside in such bond reserve fund an amount equal to the aggregate amount of each unreplenished prior withdrawal from such bond reserve fund until there is on deposit in such bond reserve fund an amount equal to the respective reserve requirement for such bond reserve fund.

The requirements of each such fund (including the making up of any deficiencies in any such fund resulting from a lack of Subordinated Water Revenues sufficient to make any earlier required deposit) at the time of deposit is to be satisfied before any deposit is made to any other fund subsequent in priority. The Indenture provides that any Subordinated Water Revenues remaining in the Revenue Fund after the foregoing transfers, except as otherwise provided in a Supplemental Indenture, shall be held free and clear of the Indenture by the District. The District may use and apply such Subordinated Water Revenues for any lawful purpose of the District, including the redemption of Water System Revenue Bonds upon the terms and conditions set forth in a Supplemental Indenture relating to such Water System Revenue Bonds and the purchase of Water System Revenue Bonds as and when and at such prices as it may determine. There is no bond reserve fund being established in connection with the Series 2017 Bonds. See "– No Bond Reserve Fund for Series 2017 Bonds" below.

Under the Indenture the District may enter into an interest rate swap agreement corresponding to the interest rate or rates payable on a Series of Water System Revenue Bonds or any portion thereof and the amounts received by the District or the Trustee, if any, pursuant to such an interest rate swap agreement may be applied to the deposits required under the Indenture. If the District so designates, amounts payable under the interest rate swap agreement shall be secured by Subordinated Water Revenues and other assets pledged under the Indenture to the Water System Revenue Bonds on a parity basis therewith.

For further information regarding the allocation of Subordinated Water Revenues with respect to the Water System Revenue Bonds, see APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Allocation of Subordinated Water Revenues."

No Bond Reserve Fund for Series 2017 Bonds

There is no bond reserve fund being established in connection with the Series 2017 Bonds and amounts on deposit in any bond reserve fund for any other Series of Water System Revenue Bonds are not available for the payment of, and do not in any manner secure, the Series 2017 Bonds.

Rate Covenant

The District has covenanted under the Indenture that it will, at all times while any of the Water System Revenue Bonds remain Outstanding, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Water System so as to yield Water Revenues in each Fiscal Year sufficient so that the Subordinated Water Revenues for such year shall be at least equal to 1.1 times the amount of Debt Service on all Water System Revenue Bonds and Parity Debt for such Fiscal Year. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Certain Definitions" for the definition of Debt Service under the Indenture. See also "AMENDMENTS TO THE INDENTURE."

Outstanding Water System Revenue Obligations

No Senior Water Bonds. Pursuant to Resolution No. 30050 adopted by the Board of Directors of the District on January 26, 1982 (as amended and supplemented, the "Senior Water Bond Resolution"), the District authorized the issuance, from time to time, of bonds of the District designated as "East Bay Municipal Utility District Water System Revenue Bonds" (the "Senior Water Bonds") and secured by a pledge of, and first lien on, the Net Revenues (as defined in the Senior Water Bond Resolution) of the District's Water System, generally being all of the Water Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) after payment of Water Operation and Maintenance Costs thereof, all on the terms and conditions set forth in the Senior Water Bond Resolution. At the time of the initial execution and delivery of the Indenture in 1990, the Indenture did not preclude the District from issuing additional Senior Water Bonds pursuant to the Senior Water Bonds were retired in 1997. There are currently no Senior Water Bonds outstanding. Pursuant to the Eighteenth Supplemental Indenture, the District has covenanted and agreed that it will not issue any Senior Water Bonds in the future pursuant to the Senior Water Bond Resolution.

Outstanding Water System Revenue Bonds and Parity Debt. As of May 1, 2017, the District had Outstanding \$2,271,510,000 aggregate principal amount of Water System Revenue Bonds (collectively, the "Outstanding Water System Revenue Bonds") issued under and pursuant to the Indenture. The District's Outstanding Water System Revenue Bonds include fixed rate bonds and variable rate demand obligations which are currently in a weekly mode during which the per annum interest rate thereon is re-set weekly (the "Weekly Rate Bonds"). See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Outstanding Debt."

Approximately \$105,250,000 principal amount of the District's variable rate Outstanding Water System Revenue Bonds are Weekly Rate Bonds. The Weekly Rate Bonds are subject to tender prior to maturity, including optional tender by the owners thereof upon seven days' notice. The District has entered into liquidity agreements with various banks to provide liquidity facilities for such variable rate Outstanding Water System Revenue Bonds that are Weekly Rate Bonds. The obligation of the District to repay any draws on such liquidity facilities is payable on a parity with the Outstanding Water System Revenue Bonds to the extent such repayment is not thereafter provided from remarketing proceeds of the related Outstanding Water System Revenue Bonds. Unreimbursed draws under liquidity facilities supporting such variable rate Outstanding Water System Revenue Bonds bear interest at a maximum rate that may be substantially in excess of the current interest rate on the related variable rate Outstanding Water System Revenue Bonds. Moreover, in certain circumstances, the failure to reimburse draws on the liquidity facilities may result in the acceleration of the scheduled payment of principal on such variable rate Outstanding Water System Revenue Bonds. See Table 15 in APPENDIX A - "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) - WATER SYSTEM FINANCES -Variable Rate and Swap Obligations" for additional information regarding the liquidity providers, the expiration date of the related liquidity facilities and the principal amount of Outstanding Water System Revenue Bonds covered under each such liquidity facility.

The District's \$400,000,000 fixed rate Outstanding Water System Revenue Bonds, Series 2010B were issued as "Build America Bonds" that are "qualified bonds" under the provisions of the American Recovery and Reinvestment Act of 2009. The interest subsidy payments the District receives in reimbursement for interest on such Build America Bonds pursuant to Section 54AA of the Code (referred to herein as "BABs Interest Subsidy Payments") are currently treated as Water Revenues for purposes of Indenture. From and after the effective date of the amendments to the Indenture pursuant to the Sixteenth Supplemental Indenture (see "AMENDMENTS TO THE INDENTURE"), for the purpose of calculating

Debt Service, Annual Debt Service and Maximum Annual Debt Service under the Indenture (as amended by the Sixteenth Supplemental Indenture), to the extent interest on such Build America Bonds is reasonably anticipated to be reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program, then in making such calculations, interest payments with respect to the Build America Bonds will be reduced by the amount of such interest reasonably anticipated to be paid or reimbursed by the United States of America. Pursuant to Federal sequestration legislation passed by Congress in 2011 and 2013, Federal subsidy payments for direct-pay bonds, including Build America Bonds, have been reduced (by formula) from the original funding subsidy level of 35% of interest costs on direct-pay bonds, including Build America Bonds. The sequestration reduction rate of the Federal subsidy payment for Build America Bonds is 6.9% for the Federal government's fiscal year beginning October 1, 2016, and this means that BABs Interest Subsidy Payments sought by the District for its Build America Bonds will be reduced by this percentage. This reduction will increase the District's net interest cost. The percentage reduction is re-determined for each Federal fiscal year. At present, pursuant to Federal legislation, sequestration will continue through fiscal year 2023. The District can give no assurance regarding the level of subsidy payments or changes in the sequestration rate, if any, in the future, or whether Congress will adopt legislation in the future that will further reduce subsidy payments for direct-pay bonds, including Build America Bonds. Under the Indenture, the District is obligated to make all interest payments on the Water System Revenue Bonds without regard to the receipt of any federal BABs Interest Subsidy Payments by the District.

In addition to the Outstanding Water System Revenue Bonds, the District has outstanding loans with the State of California's State Water Resources Control Board and the Department of Water Resources and certain interest rate swap agreements the scheduled payments under which are payable from Subordinated Water Revenues on a parity with the Water System Revenue Bonds, as described below. See "—Interest Rate Swap Agreements" and "— Parity State Loans" below. The Outstanding Water System Revenue Bonds, together with any additional Water System Revenue Bonds issued under the Indenture (including the Series 2017 Bonds), and any Parity Debt heretofore or hereafter issued or incurred in accordance with the Indenture, are on a parity as to the pledge of and lien on Subordinated Water Revenues.

Interest Rate Swap Agreements. As of May 1, 2017, the District had outstanding interest rate swap agreements relating to Outstanding variable rate Water System Revenue Bonds (hereinafter collectively, the "Water Interest Rate Swap Agreements") with various counterparties (collectively, the "Swap Providers") in the aggregate notional amount of \$105,250,000. The Water Interest Rate Swap Agreements were entered into to hedge the interest rate exposure on the related variable rate Water System Revenue Bonds by synthetically converting the variable interest rate payments that the District is obligated to make with respect to the related Water System Revenue Bonds into substantially fixed payments. In general, the terms of the Water Interest Rate Swap Agreements provide that, on a same-day net–payment basis determined by reference to a notional amount, the District will pay a fixed interest rate on the respective notional amount. In return, the applicable Swap Provider will pay a variable rate of interest (determined as a specified percentage of an interest rate index) on a like notional amount.

There is no guarantee that the floating rate payable to the District pursuant to each of the Water Interest Rate Swap Agreements will match the variable interest rate on the associated Water System Revenue Bonds to which the respective Water Interest Rate Swap Agreement relates at all times or at any time. Since the respective effective dates of the Water Interest Rate Swap Agreements, the floating rates payable to the District pursuant to the Water Interest Rate Swap Agreements have generally not matched the variable interest rates on the associated Water System Revenue Bonds. To the extent that the Swap Providers are obligated to make a payment to the District under their respective Water Interest Rate Swap Agreement that is less than the interest due on the associated Water System Revenue Bonds to which such

Water Interest Rate Swap Agreement relates, the District is obligated to pay such insufficiency from Subordinated Water Revenues.

The obligation of the District to make regularly scheduled payments to the Swap Providers under the respective Water Interest Rate Swap Agreements is on a parity with the District's obligation to make payments on the Water System Revenue Bonds, including the Series 2017 Bonds. Under certain circumstances, the Water Interest Rate Swap Agreements may be terminated and the District may be required to make a substantial termination payment to the respective Swap Providers. Pursuant to the Water Interest Rate Swap Agreements, any such termination payment owed by the District would be payable on a basis that is subordinate to the Series 2017 Bonds but prior to the District's Commercial Paper Notes (Water Series), if any.

Pursuant to the terms of certain of the Water Interest Rate Swap Agreements, the District is required to post collateral in favor of a counterparty to the extent that the District's total exposure for termination payments to that counterparty exceeds the threshold amount specified in the applicable Water Interest Rate Swap Agreement.

See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Variable Rate and Swap Obligations" for additional information regarding the Water Interest Rate Swap Agreements, including the District's collateral posting obligations in connection therewith.

The District may, from time-to-time, enter into additional interest rate swap agreements with security and payment provisions as determined by the District and subject to any conditions contained in the Indenture.

Parity State Loans. The District participates in the Safe Drinking Water State Revolving Fund and Clean Water State Revolving Fund loan programs administered by the State Water Resources Control Board (the "SWRCB"), which were established to provide below-market rate financing for qualified water resource projects in the State. Under these programs, as of May 1, 2017, the District had outstanding loan contracts with the SWRCB ("State Loans") in the aggregate outstanding principal amount of approximately \$12,950,462. {Add if applicable at time of mailing:} [In addition, the District has made application for a number of State Loans to finance a portion of the costs of specified capital projects of the District, applications for which up to approximately \$_____ in loan funds have been approved.] All outstanding State Loans provide that such State Loans shall be either senior to or on parity with all future debt of the District. For purposes of calculating debt service coverage ratios, the District has treated all such State Loans as Parity Debt. Any future State Loans received by the District would likely constitute Parity Debt under the Indenture.

Subordinate Commercial Paper. The District maintains two commercial paper note programs. Under the District's traditional commercial paper program, commercial paper notes may be issued at prevailing interest rates for periods of not more than 270 days from the date of issuance. In connection with its traditional commercial paper program, the District has covenanted to procure and maintain in effect for any series or subseries of commercial paper notes issued thereunder one or more liquidity facilities enabling it to borrow an aggregate amount at least equal to the principal amount of such series or subseries of commercial paper notes. As of May 1, 2017, the District had outstanding \$359,800,000 aggregate principal amount of tax-exempt Commercial Paper Notes (Water Series) issued for the benefit of the Water System under the District's traditional commercial paper program. Under the extendable municipal commercial paper program, commercial paper may be issued 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 May 1, 2017, the District had outstanding no Extendable Municipal Commercial Paper Notes (Water Series) issued for the benefit of the Water System under the District's extendable municipal commercial paper program. Commercial paper notes issued for the benefit of the Water System under either such program (and the District's repayment obligation for amounts borrowed, if any, under any applicable liquidity facility therefor), are payable from and secured by a pledge of Water Revenues on a basis subordinate to the Water System Revenue Bonds and Parity Debt. See also APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Outstanding Debt" for additional information regarding the District's authorized commercial paper note programs.

Issuance of Additional Water System Revenue Bonds and Parity Debt; Junior and Subordinate Obligations

The Indenture provides conditions under which additional Series of Water System Revenue Bonds or other Parity Debt payable from Subordinated Water Revenues may be issued on a parity with the Outstanding Water System Revenue Bonds. Among other conditions, the Indenture requires that the District shall have placed on file with the Trustee a certificate of the District certifying that the sum of: (1) the Subordinated Water Revenues for any period of 12 consecutive months during the 18 months immediately preceding the date on which such additional Water System Revenue Bonds or Parity Debt will become Outstanding; plus (2) 90% of the amount by which the District projects Subordinated Water Revenues for such period of 12 months would have been increased had increases in rates, fees and charges during such period of 12 months been in effect throughout such period of 12 months; plus (3) 75% of the amount by which the District projects Subordinated Water Revenues will increase during the period of 12 months commencing on the date of issuance of such additional Series of Water System Revenue Bonds due to improvements to the Water System under construction (financed from any source) or to be financed with the proceeds of such additional Series of Water System Revenue Bonds, shall have been at least equal to 1.1 times the amount of Maximum Annual Debt Service on all Water System Revenue Bonds and Parity Debt then Outstanding and the additional Water System Revenue Bonds or Parity Debt then proposed to be issued. See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE - Certain Definitions" for the definition of Maximum Annual Debt Service and Debt Service under the Indenture. See also "AMENDMENTS TO THE INDENTURE."

Refunding Water System Revenue Bonds may be authorized and issued by the District without compliance with the provisions described above, subject to the terms and conditions of the Indenture, including the condition that Maximum Annual Debt Service on all Water System Revenue Bonds and Parity Debt outstanding following the issuance of such refunding Water System Revenue Bonds is less than or equal to Maximum Annual Debt Service on all Water System Revenue Bonds and Parity Debt outstanding prior to the issuance of such refunding Water System Revenue Bonds. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Refunding Bonds."

Pursuant to the Indenture, the District may incur obligations which are junior and subordinate to the payment of the principal, redemption price, interest and reserve fund requirements for the Water System Revenue Bonds and all Parity Debt and which subordinated obligations are payable as to principal, redemption price, interest and reserve fund requirements, if any, only out of Subordinated Water Revenues after the prior payment of all amounts then required to be paid under the Indenture from Subordinated Water Revenues for principal, redemption price, interest and reserve fund requirements for the Water System Revenue Bonds and all Parity Debt, as the same become due and payable and at the times and in the manner as required in the Indenture or the instrument authorizing such Parity Debt, as applicable.

Investment of Moneys in Funds and Accounts Under the Indenture

All moneys held in any of the funds and accounts held by the Trustee and established pursuant to the Indenture shall be invested, as directed by the District, solely in Investment Securities (see APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Certain Definitions" for the definition of Investment Securities under the Indenture). If and to the extent the Trustee does not receive investment instructions from the District with respect to the moneys in such funds and accounts, such moneys shall be invested in a cash sweep or similar account arrangement of or available to the Trustee described in clause (xi) of the definition of Investment Securities.

Unless otherwise provided in a Supplemental Indenture, all interest, profits and other income received from the investment of moneys in any fund or account other than the Rebate Fund shall be transferred to the Revenue Fund when received; provided, however, that an amount of interest received with respect to any Investment Security equal to the amount of accrued interest, if any, paid as part of the purchase price of such Investment Security shall be credited to the fund or account from which such accrued interest was paid.

Limitations on Remedies

The ability of the District to comply with its covenants under the Indenture and to generate Water Revenues sufficient to pay the principal of and interest on the Series 2017 Bonds may be adversely affected by actions and events outside of the control of the District. Furthermore, any remedies available to the owners of the Series 2017 Bonds upon the occurrence of an event of default under the Indenture are in many respects dependent upon judicial actions which are often subject to discretion and delay and could prove both expensive and time consuming to obtain. In addition, enforceability of the rights and remedies of the owners of the Series 2017 Bonds, and the obligations incurred by the District under the Series 2017 Bonds and the Indenture, may become subject to the following: the federal Bankruptcy Code and applicable bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or affecting the enforcement of creditor's rights generally, now or hereafter in effect; equity principles which may limit the specific enforcement under State law of certain remedies; the exercise by the United States of America of the powers delegated to it by the Constitution; and the reasonable and necessary exercise, in certain exceptional situations, of the police powers inherent in the sovereignty of the State and its governmental bodies in the interest of serving a significant and legitimate public purpose. Bankruptcy proceedings, or the exercise of powers by the federal or State government, if initiated, could subject the owners of the Series 2017 Bonds to judicial discretion and interpretation of their rights in bankruptcy or otherwise, and consequently may entail risks of delay, limitation, or modification of their rights.

AMENDMENTS TO THE INDENTURE

The Sixteenth Supplemental Indenture includes a number of amendments to the Indenture (as described below) which will become effective upon the earlier to occur of: (i) the first date upon which all of the now Outstanding Series 2007B Bonds and Series 2008A Bonds have been paid or discharged in accordance with their terms and shall no longer be Outstanding for purposes of the Indenture (all of which Series 2007B Bonds are expected to be discharged upon the issuance of the Series 2017B Bonds) and all obligations of the District under any interest rate swap agreements and any standby bond purchase agreements or other liquidity facilities relating thereto shall have been discharged and satisfied, or (ii) the first date upon which the District has filed with the Trustee the written consents to the amendments to the Indenture set forth in the Sixteenth Supplemental Indenture of (a) the Owners of a majority in aggregate principal amount of Bond Obligation then Outstanding and (b) the providers of any interest rate swap agreements and any standby bond purchase agreements, other liquidity facilities or other agreements relating to such Bond Obligation then Outstanding to the extent the consent thereof shall be required by

the terms of such interest rate swap agreements and any standby bond purchase agreements, other liquidity facilities or other agreements.

As modified, the term "Annual Debt Service" shall mean, for any Fiscal Year, the aggregate amount of principal and interest on all Water Bonds, Bonds and Parity Debt becoming due and payable during such Fiscal Year calculated using the principles and assumptions set forth under the definition of Debt Service.

As modified, the term "Assumed Debt Service" shall mean for any Fiscal Year, the aggregate amount of principal and interest which would be payable on all Water Bonds, Bonds and Parity Debt if each Excluded Principal Payment were amortized for a period specified by the District (but no longer than thirty (30) years from the date of the issuance of the Water Bonds, Bonds or Parity Debt to which such Excluded Principal Payment relates) on a substantially level debt service basis or other amortization basis provided by the District, calculated based on a fixed interest rate equal to the rate at which the District could borrow for such period, as certified by a certificate of a financial advisor or investment banker delivered to the Trustee, who may rely conclusively on such certificate, within thirty (30) days of the date of calculation.

As modified, the term "Debt Service" shall mean the amount of principal and interest becoming due and payable on all Water Bonds, Bonds and Parity Debt provided, however, that for the purpose of computing Debt Service:

- (a) Excluded Principal Payments shall be excluded from such calculation and Assumed Debt Service shall be included in such calculation;
- (b) if the Water Bonds, Bonds or Parity Debt are Variable Rate Indebtedness, the interest rate thereon for periods when the actual interest rate cannot yet be determined shall be assumed to be equal to the average of the SIFMA Municipal Swap Index for the five (5) years preceding such date of calculation (provided, however, that if such index is no longer published, the interest rate on such Water Bonds, Bonds or Parity Debt shall be calculated based upon such similar index as the District shall designate in writing to the Trustee) (the "Assumed SIFMA-based Rate");
- (c) principal and interest payments on Water Bonds, Bonds and Parity Debt shall be excluded to the extent such payments are to be paid from amounts on deposit with the Trustee or another fiduciary in escrow or trust specifically therefor and to the extent that such interest payments are to be paid from the proceeds of Water Bonds, Bonds or Parity Debt held by the Trustee or another fiduciary as capitalized interest;
- (d) in determining the principal amount, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any Mandatory Sinking Account Payments or any scheduled redemption or payment of Water Bonds, Bonds or Parity Debt on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value shall be deemed a principal payment and interest that is compounded and paid as Accreted Value shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Indebtedness;
- (e) if any interest rate swap agreement is in effect with respect to, and the regularly scheduled payments thereunder are payable on a parity with, the Water Bonds, Bonds or Parity Debt to which it relates, interest deemed to be payable on any such Water Bonds, Bonds or Parity Debt with respect to which an interest rate swap agreement is in effect shall be based on the net

economic effect expected by the District to be produced by the terms of such Water Bonds, Bonds or Parity Debt and such interest rate swap agreement, including but not limited to the effects that (i) such Water Bonds, Bonds or Parity Debt would, but for such interest rate swap agreement, be treated as Variable Rate Indebtedness instead shall be treated as Water Bonds, Bonds or Parity Debt bearing interest at a fixed interest rate, and (ii) such Water Bonds, Bonds or Parity Debt would, but for such interest rate swap agreement, be treated as Water Bonds, Bonds or Parity Debt bearing interest at a fixed interest rate instead shall be treated as Variable Rate Indebtedness; and accordingly, the amount of interest deemed to be payable on any Water Bonds, Bonds or Parity Debt with respect to which an interest rate swap agreement is in force shall be an amount equal to the amount of interest that would be payable at the rate or rates stated in such Water Bonds, Bonds or Parity Debt plus the amounts payable by the District under such interest rate swap agreement, minus the amounts receivable by the District under such interest rate swap agreement, and for the purpose of calculating as nearly as practicable such amounts, the following assumptions shall be made:

- (1) if an interest rate swap agreement has been entered into by the District with respect to Water Bonds, Bonds or Parity Debt providing for the payment of a net variable interest rate under such interest rate swap agreement with respect to such Water Bonds, Bonds or Parity Debt by the District, the interest rate on such Water Bonds, Bonds or Parity Debt for future periods when the actual interest rate cannot yet be determined shall be assumed (but only during the period the interest rate swap agreement is in effect) to be equal to the sum of (A) the fixed rate or rates stated in such Water Bonds, Bonds or Parity Debt minus (B) the fixed rate paid by the counterparty of such interest rate swap agreement to the District, plus (C) the lesser of (x) the interest rate cap, if any, provided by a counterparty with respect to such interest rate swap agreement (but only during the period that such interest rate cap is in effect) and (y) the applicable variable interest rate calculated in accordance with paragraph (b) above; and
- (2) if an interest rate swap agreement has been entered into by the District with respect to Water Bonds, Bonds or Parity Debt providing for the payment of a fixed rate of interest to maturity or for a specific term under such interest rate swap agreement with respect to such Water Bonds, Bonds or Parity Debt by the District, the interest on such Water Bonds, Bonds or Parity Debt shall be included in the calculation of payments (but only during the period the interest rate swap agreement is in effect) by including for each period of calculation an amount equal to the amount of interest payable at the fixed interest rate pursuant to such interest rate swap agreement.

Notwithstanding any other paragraph of this definition of Debt Service, except as set forth in this paragraph (e), no amounts payable under any interest rate swap agreement (including termination payments) shall be included in the calculation of Debt Service;

(f) if any Water Bonds, Bonds or Parity Debt are Variable Rate Indebtedness subject to tender for purchase and funds for the purchase price may be provided by a letter of credit, line of credit, revolving credit agreement, standby bond purchase agreement or other liquidity facility which, if drawn upon, could create a repayment obligation which has a lien on Subordinated Water Revenues on parity with the lien of the Water Bonds, Bonds or Parity Debt, then for purposes of determining the amounts of principal due in any Fiscal Year on such Water Bonds, Bonds or Parity Debt, (i) the options or obligations of the owners of such Water Bonds, Bonds or Parity Debt to tender the same for purchase or payment prior to the stated maturity or maturities shall be ignored and not treated as a principal maturity; and (ii) any repayment obligations of the District to the provider of such letter of credit, line of credit, revolving credit agreement, standby

bond purchase agreement or other liquidity facility, other than its obligations on such Water Bonds, Bonds or Parity Debt, shall be treated as Excluded Principal Payments; and

(g) if interest on any Water Bonds, Bonds or Parity Debt is reasonably anticipated to be reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program, then interest payments with respect to such Water Bonds, Bonds or Parity Debt shall be reduced by the amount of such interest reasonably anticipated to be paid or reimbursed by the United States of America.

As modified, the term "Maximum Annual Debt Service" shall mean the greatest amount of principal and interest becoming due and payable on all Water Bonds, Bonds and Parity Debt in the Fiscal Year in which the calculation is made or any subsequent Fiscal Year calculated using the principles and assumptions set forth under the definition of Debt Service.

The term "SIFMA Municipal Swap Index" means, on any date, a rate determined on the basis of the seven-day high grade market index of tax-exempt variable rate demand obligations, as produced by Municipal Market Data and published or made available by the Securities Industry & Financial Markets Association (formerly the Bond Market Association) ("SIFMA") or by any Person acting in cooperation with or under the sponsorship of SIFMA and effective from such date.

As modified, the term "Water Revenues" shall mean 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, together with income from the investment of any moneys in any fund or account established under the Senior Water Bond Resolution or the Indenture; provided, however, there shall be excluded therefrom any amounts reimbursed to the District by the United States of America pursuant to Section 54AA of the Code or any future similar program.

CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS

Tax Limitations – Proposition 13

Article XIIIA of the State Constitution, known as Proposition 13, was approved by the voters in June 1978. Section 1(a) of Article XIIIA limits the maximum ad valorem tax on real property to 1% of "full cash value," and provides that such tax shall be collected by the counties and apportioned according to State statutes. Section 1(b) of Article XIIIA provides that the 1% limitation does not apply to *ad valorem* taxes levied to pay interest or redemption charges on (1) indebtedness approved by the voters prior to July 1, 1978, and (2) any bonded indebtedness for the acquisition or improvement of real property approved on or after July 1, 1978, by two-thirds of the votes cast by the voters voting on the proposition.

Section 2 of Article XIIIA defines "full cash value" to mean the county assessor's valuation of real property as shown on the 1975-76 Fiscal Year tax bill, or, thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership has occurred. The full cash value may be adjusted annually to reflect inflation at a rate not to exceed 2% per year, or to reflect a reduction in the consumer price index or comparable data for the taxing jurisdiction, or may be reduced in the event of declining property value caused by substantial damage, destruction or other factors. Legislation enacted by the State Legislature to implement Article XIIIA provides that, notwithstanding any other law, local agencies may not levy any ad valorem property tax except to pay debt service on indebtedness approved by the voters as described above. Such legislation further provides that each county will levy the maximum tax permitted by Article XIIIA, which is \$1.00 per \$100 of assessed market value. The legislation further establishes the method for allocating the taxes collected by each county among the

taxing agencies in the county. Special districts, such as the District, receive an allocation that is based primarily upon their tax levies in certain years prior to the amendment's effective date relative to the tax levies of other congruent agencies. The District receives approximately 1.25% of the non-debt service property taxes collected within its jurisdiction from Alameda and Contra Costa counties. See also APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Property Tax Revenues."

Since its adoption, Article XIIIA has been amended a number of times. These amendments have created a number of exceptions to the requirement that property be reassessed when purchased, newly constructed or a change in ownership has occurred. These exceptions include certain transfers of real property between family members, certain purchases of replacement dwellings for persons over age 55 and by property owners whose original property has been destroyed in a declared disaster, and certain improvements to accommodate disabled persons and for seismic upgrades to property. These amendments have resulted in marginal reductions in the property tax revenues of the District.

Increases of assessed valuation resulting from reappraisals of property due to new construction, change in ownership or from the 2% annual adjustment are allocated among the various jurisdictions in the "taxing area" based upon their respective "situs." Any such allocation made to a local agency continues as part of its allocation in future years.

The effect of Article XIIIA on the District's finances has been to restrict ad valorem tax revenues for general purposes to the statutory allocation of the 1% levy while leaving intact the power to levy ad valorem taxes in whatever rate or amount may be required to pay debt service on its outstanding general obligation bonds and unissued bonds authorized prior to July 1, 1978. Since Fiscal Year 1978-79 tax revenues for the Water System have consisted exclusively of the District's allocated share of the 1% county levy.

Both the California State Supreme Court and the United States Supreme Court have upheld the validity of Article XIIIA.

For a description of the property tax collection procedure and certain statistical information concerning tax collections and delinquencies, see APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Property Tax Revenues."

Spending Limitations

At the statewide special election of November 6, 1979, the voters approved an initiative entitled "Limitation of Government Appropriations" which added Article XIIIB to the California Constitution. Under Article XIIIB, State and local governmental entities have an annual "appropriations limit" which limits the ability to spend certain moneys which are called "appropriations subject to limitation" (consisting of tax revenues, state subventions and certain other funds) in an amount higher than the "appropriations." Article XIIIB does not affect the appropriation of moneys which are excluded from the definition of "appropriations subject to limitation." Among the exclusions is an "appropriation of any special district which existed on January 1, 1978, and which did not as of the 1977-78 Fiscal Year levy an ad valorem tax on property in excess of 12.5 cents per \$100 of assessed value." In the opinion of the District's General Counsel, the appropriations of the District are excluded from the limitations of Article XIIIB under this clause.

Proposition 62

A statutory initiative ("Proposition 62") was adopted by the voters voting in the State at the November 4, 1986 General Election which (1) requires that any tax for general governmental purposes imposed by local governmental entities be approved by resolution or ordinance adopted by two-thirds vote of the governmental agency's legislative body and by a majority of the electorate of the governmental entity, (2) requires that any special tax (defined as taxes levied for other than general governmental purposes) imposed by a local governmental entity be approved by a two-thirds vote of the voters within that jurisdiction, (3) restricts the use of revenues from a special tax to the purposes or for the service for which the special tax was imposed, (4) prohibits the imposition of ad valorem taxes on real property by local governmental entities except as permitted by Article XIIIA, (5) prohibits the imposition of transaction taxes and sales taxes on the sale of real property by local governmental entities and (6) requires that any tax imposed by a local governmental entity on or after March 1, 1985 be ratified by a majority vote of the electorate within two years of the adoption of the initiative or be terminated by November 15, 1988.

Proposition 218

On November 5, 1996, the voters of the State approved Proposition 218, the so-called "Right to Vote on Taxes Act." Proposition 218 added Articles XIIIC and XIIID to the State Constitution, which contain a number of provisions affecting the ability of local governments to levy and collect both existing and future taxes, assessments, fees and charges.

Article XIIID. Article XIIID established procedural requirements for imposition of assessments, which are defined as any charge on real property for a special benefit conferred upon the real property. Standby charges are classified as assessments. Procedural requirements include the conducting of a public hearing and an election by mailed ballot, with notice to the record owner of each parcel subject to the assessment. The assessment may not be imposed if a majority of the ballots returned oppose the assessment, with each ballot weighted according to the proportional financial obligation of the affected parcel. The District does not currently impose standby charges or assessments for its Water System.

Article XIIID conditions the imposition or increase of any "fee" or "charge" upon there being no written majority protest after a required public hearing and, for fees and charges other than for sewer, water or refuse collection services, voter approval. Article XIIID defines "fee" or "charge" to mean levies (other than *ad valorem* or special taxes or assessments) imposed by a local government upon a parcel or upon a person as an incident of the ownership or tenancy of real property, including a user fee or charge for a "property-related service." One of the requirements of Article XIIID is that before a property-related fee or charge may be imposed or increased, a public hearing upon the proposed fee or charge must be held and notice must be mailed to the record owner of each identified parcel of land upon which the fee or charge is proposed for imposition. In the public hearing if written protests of the proposed fee or charge are presented by a majority of the owners of affected identified parcel(s), an agency may not impose the fee or charge.

The California Supreme Court decisions in *Richmond v. Shasta Community Services District*, 32 Cal. 4th 409 (2004) ("Richmond"), and *Bighorn Desert View Water Agency v. Verjil*, 39 Cal. 4th 206 (2006) ("Bighorn") have clarified uncertainty surrounding the applicability of Section 6 of Article XIIID to service fees and charges. In Richmond, the California Supreme Court upheld a Court of Appeal decision that water connection fees (which included a capacity charge for capital improvements to the water system and a fire suppression charge) imposed by the Shasta Community Services District were not property related fees or charges subject to Article XIIID because a water connection fee results from the property owner's voluntary decision to apply for the connection. In both Richmond and Bighorn,

however, the Court stated that a fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" within the meaning of Article XIIID, rejecting, in Bighorn, the water agency's argument that consumption based water charges are not imposed "as an incident of property ownership" but as a result of the voluntary decisions of customers as to how much water to use.

The District has followed the notice, hearing and protest procedures in Article XIIID in connection with water rate increases since its Fiscal Year 2008 rate increases, and plans to follow such notice, hearing and protest procedures in connection with future rate increases.

In addition to the procedural requirements of Article XIIID, under Article XIIID all property-related fees and charges, including those which were in existence prior to the passage of Proposition 218 in November 1996, must meet the following substantive standards:

- (1) Revenues derived from the fee or charge cannot exceed the funds required to provide the property-related service.
- (2) Revenues derived from the fee or charge must not be used for any purpose other than that for which the fee or charge was imposed.
- (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership must not exceed the proportional cost of the service attributable to the parcel.
- (4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, must be classified as assessments and cannot be imposed without compliance with Section 4 of Article XIIID (relating to assessments).
- (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services where the service is available to the public at large in substantially the same manner as it is to property owners.

On April 20, 2015, the California Fourth District Court of Appeal issued a decision in Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano, 235 Cal.App.4th 1493 (2015), holding that the City of San Juan Capistrano's tiered water rates (or inclining block rates) that were in effect from February 1, 2010 through June 30, 2014 violated the requirement of Proposition 218 that a fee or charge for property-related services, such as water delivery, must be proportional to the cost of providing service. In interpreting Proposition 218, the Court of Appeal emphasized that tiered water rates, or inclining block rates, that go up progressively in relation to usage are compatible with Proposition 218. However, the court concluded that Article XIID requires that each tier must reflect the actual costs of service for property owners falling in each of the tiers. The court further concluded that the city had the burden of proof to demonstrate compliance with Proposition 218 and that the city failed to meet its burden of proof in demonstrating that its tiered water rates corresponded to the actual costs of providing service to each tier. The Court of Appeal rejected the city's argument that the rates for its highest tiers constituted a penalty or a fine, which are excluded from Proposition 218. The court determined that deeming such rates to be penalties or fines would improperly circumvent Proposition 218 in that all an agency would need to do is establish a low base rate for service and then impose penalty rates for usage in excess of the base rate that have no relation to the cost of providing service at the penalty levels. On May 19, 2015, the City of San Juan Capistrano announced that the city and the San Juan Capistrano Taxpayers Association, Inc. had reached a settlement, under the terms of which the city agreed that it would not seek review by

the California Supreme Court of the Appellate Court decision. In 2014, the city adopted a new water rate structure, including tiered rates with flatter tiers relative to its prior tiered water structure. The tiered water rates adopted by the city in 2014 were not the subject of the lawsuit. Similar water rate challenges under Proposition 218 have been reported to have been filed against other public agencies in California. The District is unable to predict the outcome of any such ongoing litigation or any future litigation under Proposition 218 that may follow.

It is District policy to conduct periodic cost of service studies and as part of the most recent study, completed in April 2015, the District focused efforts on developing a strong and clear administrative record for its rates and charges. The District believes that its established and proposed rates for water service comply with the substantive standards of Article XIIID and do not exceed the proportional cost of providing water service at each given level of usage. However, due to the uncertainties of evolving case law and potential future judicial interpretations of Proposition 218, the District is unable to predict at this time whether Proposition 218 could be interpreted, for example, to further limit fees and charges for water services and/or to require stricter standards for the allocation of costs among customers and customer classes. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – Rates and Charges."

Article XIIID further provides that nothing in Proposition 218 shall be construed to affect existing laws relating to the imposition of fees or charges as a condition of property development. The District believes that Proposition 218 does not apply to the District's System Capacity Charge, although there can be no assurance that a court would not determine otherwise. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – WATER SYSTEM FINANCES – System Capacity Charge."

Article XIIIC. Article XIIIC provides that the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge and that the power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments. Article XIIIC does not define the terms "local tax," "assessment," "fee" or "charge." On July 24, 2006, the California Supreme Court held in Bighorn-Desert View Water Agency v. Verjil that the provisions of Article XIIIC applied to rates and fees charged for domestic water use. In the decision, the Court noted that the decision did not address whether an initiative to reduce fees and charges could override statutory rate setting obligations. The District and its General Counsel do not believe that Article XIIIC grants to the voters within the District the power to repeal or reduce rates and charges in a manner that would be inconsistent with the contractual obligations of the District.

The interpretation and application of Proposition 218 will likely be subject to further judicial determinations, and the District is unable to predict the outcome of such determinations, or what, if any, further implementing legislation will be enacted. No assurance can be given that that the courts will not further interpret Article XIIIC and Article XIIID to limit the ability of the District to impose, levy, charge and collect increased fees and charges for water services, or the voters of the District will not, in the future, approve initiatives which seek to repeal, reduce or prohibit the future imposition or increase of assessments, fees or charges, including the District's water service fees and charges, which are the source of Subordinated Water Revenues pledged to the payment of debt service on the Series 2017 Bonds.

Proposition 26

Proposition 26, which amended Articles XIIIA and XIIIC of the California Constitution, was approved by the electorate at the November 2, 2010 election. Proposition 26 imposes a majority voter approval requirement on local governments such as the District with respect to certain fees and charges for general purposes, and a two-thirds voter approval requirement with respect to certain fees and charges

for special purposes, unless the fees and charges are expressly excluded. Proposition 26, according to its supporters, was intended to prevent the circumvention of tax limitations imposed by the voters in California Constitution Articles XIIIA, XIIIC and XIIID pursuant to Proposition 13, approved in 1978, Proposition 218, approved in 1996, and other measures. Proposition 26 expressly excludes from its scope "a charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the local government of providing the service or product" and "assessments and property-related fees imposed in accordance with the provisions of Article XIIID." As described above, the California Supreme Court has stated that fees and charges for ongoing water service through an existing connection are property related fees and charges under Article XIIID. See "– Proposition 218" above. The District believes that its fees and charges meet the criteria for exclusion under Proposition 26 and that the initiative is not intended to, and would not, apply to fees for water deliveries and services charged by the District. The District is unable to predict, however, how Proposition 26 will be interpreted by the courts or what its ultimate impact will be.

Other Initiatives

Articles XIIIA, XIIIB, XIIIC and XIIID and Propositions 62 and 26 were adopted as measures that qualified for the ballot pursuant to California's initiative process. From time to time other initiatives have been and could be proposed and adopted affecting the District's revenues or ability to increase revenues. Neither the nature and impact of these measures nor the likelihood of qualification for ballot or passage can be anticipated by the District.

CONTINUING DISCLOSURE

Pursuant to a Continuing Disclosure Agreement, dated the date of delivery of the Series 2017 Bonds, by and between the District and the Trustee, as dissemination agent, the District will covenant and agree for the benefit of the holders and beneficial owners of the Series 2017 Bonds to provide in an Annual Report certain financial information and operating data relating to the District by not later than 180 days following the end of the District's fiscal year (which currently is June 30 of each year), commencing with the Annual Report for Fiscal Year 2016-17, and to provide notices of the occurrence of certain specified events. The Annual Report and the notices of specified events will be filed by the Trustee on behalf of the District with the Municipal Securities Rulemaking Board through EMMA. The Municipal Securities Rulemaking Board has made such information available to the public without charge through such internet portal. The specific nature of the information to be contained in the Annual Report and the notices of specified events is set forth in APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

As of the date hereof, the District is in compliance in all material respects with its continuing disclosure undertakings for the last five years. Filings through EMMA are linked to a particular issue of obligations by CUSIP number (which is subject to change after the issuance of obligations as a result of various subsequent actions). The District uses its best efforts to confirm that each report filed through EMMA is linked to all the correct 9-digit CUSIP numbers. However, as a technical matter, it has come to the District's attention that certain filings during the past five years (primarily certain Annual Reports), when made, were not appropriately linked to all applicable CUSIP numbers. The District has since linked the applicable filings to the additional CUSIPs.

LITIGATION

There is no action, suit or proceeding known to be pending or threatened, restraining or enjoining the District in the issuance and delivery of, or in any way contesting or affecting the validity of, the Series 2017 Bonds. There is no litigation known to be pending, or to the knowledge of the District, threatened, questioning the existence of the District or the title of the officers of the District to their respective offices.

At any given time, including the present, there are certain other claims and lawsuits against the District that arise in the normal course of operations of the Water System. Such matters could, if determined adversely to the District, affect expenditures by the District, and in some cases, Water Revenues. In the view of the District's management and General Counsel, there is no litigation, present or pending, which will individually or in the aggregate materially impair the District's ability to service its indebtedness or which will have a material adverse effect on the business operations of the District.

RATINGS

Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business ("S&P"), Fitch Ratings, Inc. ("Fitch") and Moody's Investors Service, Inc. ("Moody's") have assigned the Series 2017 Bonds the ratings of "____," "___," and "____," respectively. No application has been made to any other rating agency for the purpose of obtaining any additional rating on the Series 2017 Bonds. Any desired explanation of such ratings should be obtained from the rating agency furnishing the same. Generally, rating agencies base their ratings on information and materials furnished to them and on investigations, studies and assumptions by the rating agencies. There is no assurance that any rating will continue for any given period of time or that it will not be revised downward or withdrawn entirely by such rating agency if, in the judgment of such rating agency, circumstances so warrant. Any such change in or withdrawal of such ratings may have an adverse effect on the market price of the Series 2017 Bonds.

TAX MATTERS

In the opinion of Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Underwriters ("Special Tax Counsel"), based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2017 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code") and is exempt from State of California personal income taxes. Special Tax Counsel is of the further opinion that interest on the Series 2017 Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Special Tax Counsel observes that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. A complete copy of the proposed form of opinion of Special Tax Counsel is set forth in APPENDIX D.

To the extent the issue price of any maturity of the Series 2017 Bonds is less than the amount to be paid at maturity of such Series 2017 Bonds (excluding amounts stated to be interest and payable at least annually over the term of such Series 2017 Bonds), the difference constitutes "original issue discount," the accrual of which, to the extent properly allocable to each beneficial owner thereof, is treated as interest on the Series 2017 Bonds which is excluded from gross income for federal income tax purposes and is exempt from State of California personal income taxes. For this purpose, the issue price of a particular maturity of the Series 2017 Bonds is the first price at which a substantial amount of such maturity of the Series 2017 Bonds is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). The original issue discount with respect to any maturity of the Series 2017 Bonds accrues daily over the term

to maturity of such Series 2017 Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such Series 2017 Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such Series 2017 Bonds. Beneficial owners of the Series 2017 Bonds should consult their own tax advisors with respect to the tax consequences of ownership of Series 2017 Bonds with original issue discount, including the treatment of beneficial owners who do not purchase such Series 2017 Bonds in the original offering to the public at the first price at which a substantial amount of such Series 2017 Bonds is sold to the public.

Series 2017 Bonds purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) (the "Premium Bonds") will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of bonds, like the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and a beneficial owner's basis in a Premium Bond, will be reduced by the amount of amortizable bond premium properly allocable to such beneficial owner. Beneficial owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Series 2017 Bonds. The District has made certain representations and covenanted to comply with certain restrictions, conditions and requirements designed to ensure that interest on the Series 2017 Bonds will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these covenants may result in interest on the Series 2017 Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the Series 2017 Bonds. The opinion of Special Tax Counsel assumes the accuracy of these representations and compliance with these covenants. Special Tax Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring), or any other matters coming to Special Tax Counsel's attention after the date of issuance of the Series 2017 Bonds may adversely affect the value of, or the tax status of interest on, the Series 2017 Bonds. Accordingly, the opinion of Special Tax Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Special Tax Counsel is of the opinion that interest on the Series 2017 Bonds is excluded from gross income for federal income tax purposes and is exempt from State of California personal income taxes, the ownership or disposition of, or the accrual or receipt of amounts treated as interest on, the Series 2017 Bonds may otherwise affect a beneficial owner's federal, state or local tax liability. The nature and extent of these other tax consequences depends upon the particular tax status of the beneficial owner or the beneficial owner's other items of income or deduction. Special Tax Counsel expresses no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Series 2017 Bonds to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent beneficial owners from realizing the full current benefit of the tax status of such interest. For example, presidential budget proposals in previous years have proposed legislation that would limit the exclusion from gross income of interest on the Series 2017 Bonds to some extent for high-income individuals. The introduction or enactment of any such legislative proposals or clarification of the Code or court decisions may also affect, perhaps significantly, the market price for, or marketability of, the Series 2017 Bonds. Prospective purchasers of the Series 2017 Bonds should consult their own tax

advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation as to which Special Tax Counsel is expected to express no opinion.

The opinion of Special Tax Counsel is based on current legal authority, covers certain matters not directly addressed by such authorities, and represents Special Tax Counsel's judgment as to the proper treatment of the Series 2017 Bonds for federal income tax purposes. It is not binding on the Internal Revenue Service ("IRS") or the courts. Furthermore, Special Tax Counsel cannot give and has not given any opinion or assurance about the future activities of the District, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The District has covenanted, however, to comply with the requirements of the Code.

Special Tax Counsel's engagement with respect to the Series 2017 Bonds ends with the issuance of the Series 2017 Bonds, and, unless separately engaged, Special Tax Counsel is not obligated to defend the District or the beneficial owners regarding the tax-exempt status of the Series 2017 Bonds in the event of an audit examination by the IRS. Under current procedures, parties other than the District and their appointed counsel, including the beneficial owners, would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the District legitimately disagree, may not be practicable. Any action of the IRS, including but not limited to selection of the Series 2017 Bonds for audit, or the course or result of such audit, or an audit of Series 2017 Bonds presenting similar tax issues may affect the market price for, or the marketability of, the Series 2017 Bonds, and may cause the District or the beneficial owners to incur significant expense.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

"Verification Agent"), will deliver a report stating that the firm has verified (i) the accuracy of mathematical computations concerning the adequacy of the cash deposited in the 2007B Escrow Fund to pay on the applicable redemption date for the Refunded 2007B Bonds the redemption price of such Refunded 2007B Bonds to be redeemed on such date, plus accrued interest thereon, (ii) the accuracy of mathematical computations concerning the adequacy of the maturing principal amounts of the Federal Securities to be deposited to the 2010A Escrow Fund and interest to be earned thereon, together with amounts held as cash in the 2010A Escrow Fund, to pay interest due with respect to the Refunded 2010A Bonds on and prior to the redemption date therefor, and to pay on such redemption date, the redemption price of the Refunded 2010A Bonds to be redeemed on such date, and (iii) certain mathematical computations supporting the conclusion that the Series 2017A Bonds are not "arbitrage bonds" under the Code, which will be used in part by Special Tax Counsel in concluding that interest on the Series 2017A Bonds is excluded from gross income for federal income tax purposes under present laws, including applicable provisions of the Code, existing court rulings, regulations and Internal Revenue Service rulings.

The report of the Verification Agent will include the statement that the scope of their engagement was limited to verifying the mathematical accuracy of the computations contained in such schedules provided to them and that they have no obligation to update their report because of events occurring, or data or information coming to their attention, subsequent to the date of their report.

UNDERWRITING

The Series 2017 Bonds will be purchased by Barclays Capital Inc., as representative of itself and the other underwriters of the Series 2017 Bonds (the "Underwriters"), pursuant to and subject to the conditions set forth in the bond purchase contract between the District and the Underwriters, at a purchase

price of	f \$		(equal	to the \$			aggre	gate	princip	al amou	nt of th	e Se	ries 20)17
Bonds,	less	an	Underwriters'	discount	of	\$,]	plus	[net]	original	issue	prer	nium	of
\$).	The bond pure	chase contr	ract	provides	s that	the 1	Underw	riters w	ill purch	iase :	all of t	the
Series 2	2017 I	Bond	s if any are pu	rchased, a	nd t	hat the	obliga	ition	to mak	ke such j	purchase	e is s	subject	to
certain t	terms a	and c	onditions set for	rth in the b	ond	purchas	e cont	ract.						

The Underwriters may offer and sell the Series 2017 Bonds to certain dealers (including dealers depositing Series 2017 Bonds into investment trusts) and others at prices lower than the respective public offering prices stated or derived from information stated on the inside cover pages hereof. The initial public offering prices may be changed from time to time by the Underwriters.

CERTAIN RELATIONSHIPS

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the District, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of sales, trading, brokerage and financing activities, the Underwriters may at any time hold long or short positions, and may trade or otherwise effect transactions, for their own accounts or the accounts of customers, in debt or equity securities and financial instruments or bank loans, as applicable, of the District and other governmental entities and utilities. In connection with these activities and the provision of other services, certain of the Underwriters may be or become creditors of such entities. In addition, certain of the Underwriters, or their affiliates, currently serve as commercial paper dealers, remarketing agents or providers of credit enhancement or liquidity facilities for variable rate obligations issued by, or as interest rate swap providers to, governmental entities and utilities, including, in some cases, the District.

In January 2013, the District commenced an action against all of the USD LIBOR panel banks, including Bank of America entities (Bank of America Corporation ("BAC"), the parent of BofAML, its affiliate, Merrill, Lynch, Pierce and Fenner, and Bank of America, N.A. ("BANA")), and Barclays Bank. Barclays Capital Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated, are two of the Underwriters of the Series 2017 Bonds. The District alleges that the defendants conspired to suppress U.S. dollar LIBOR by collectively submitting U.S. dollar LIBOR rates to the British Bankers' Association that were artificially low between August 2007 and March 2011. The District alleges generally that defendants made false or misleading representations in connection with USD LIBOR, that the suppression of U.S. dollar LIBOR deprived it of its rightful rate of return on various interest rate swap transactions, and asserts a variety of claims including antitrust claims seeking treble damages. The Court has granted motions to dismiss against certain plaintiffs and this order is likely to be appealed.

APPROVAL OF LEGAL PROCEEDINGS

All legal matters incident to the offering of the Series 2017 Bonds are subject to the approval of legality by Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel. Certain legal matters will be passed upon for the District by its General Counsel and for the Underwriters by their counsel, Orrick, Herrington & Sutcliffe LLP, San Francisco, California. The form of approving opinion of Co-Bond Counsel and the form of opinion to be delivered by Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Underwriters, in connection with the issuance of the Series 2017 Bonds are included as APPENDIX D to this Official Statement.

CO-MUNICIPAL ADVISORS

The District has retained Montague DeRose and Associates, LLC, Walnut Creek, California, and Backstrom McCarley Berry & Co., LLC, San Francisco, California, as co-municipal advisors (the "Co-Municipal Advisors") in connection with the issuance and delivery of the Series 2017 Bonds. The Co-Municipal Advisors are not obligated to undertake, and have not undertaken to make, an independent verification or assume responsibility for the accuracy, completeness, or fairness of the information contained in this Official Statement.

INDEPENDENT ACCOUNTANTS

Included as APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015" to this Official Statement are the audited financial statements of the District for the Fiscal Years ended June 30, 2016 and 2015. The District's financial statements for the Fiscal Years ended June 30, 2016 and 2015, included in APPENDIX B, have been audited by Maze & Associates, certified public accountants. Maze & Associates has not been requested to consent to the inclusion of its report in APPENDIX B and it has not undertaken to update its report or to take any action intended or likely to elicit information concerning the accuracy, completeness or fairness of the statements made in this Official Statement, and no opinion is expressed by Maze & Associates with respect to any event subsequent to the date of its report.

It is District policy to competitively select and retain independent accountants on a periodic basis. Maze & Associates began serving as the District's independent accountants in Fiscal Year 2005. In 2012, following a request for proposals and competitive selection process, Maze & Associates was retained under contract with the District to serve as independent accountants for the three fiscal years ending June 30, 2012 through 2014, which contract term was subsequently extended in November 2014 for an additional two-year period for the fiscal years ending June 30, 2015 and 2016. In November 2016, the District extended its contract with Maze & Associates to serve as independent accountants pursuant to the contract terms for the final additional two-year period for the fiscal years ending June 30, 2017 and 2018.

MISCELLANEOUS

References made herein to certain documents and reports are brief summaries thereof and do not purport to be complete or definitive and reference is hereby made to such documents and reports for a full and complete statement of the contents thereof.

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the District and the purchasers or registered owners of any of the Series 2017 Bonds. The delivery and distribution of this Official Statement have been duly authorized by the District.

EAST BAY MUNICIPAL UTILITY DISTRICT

By:		
	General Manager	

APPENDIX A

THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)

APPENDIX B

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

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

The following is a summary of certain provisions of the Indenture. This summary is not to be considered a full statement of the terms of the Indenture and accordingly is qualified by reference thereto and is subject to the full text thereof. Capitalized terms not defined in this summary or elsewhere in the Official Statement have the respective meanings set forth in the Indenture.

There are no senior Water Bonds outstanding, and the District has covenanted in the Indenture not to issue any senior Water Bonds in the future. Therefore, all references hereto to "Water Bonds" may be disregarded.

Certain Definitions

- "Accreted Value" means, with respect to any Capital Appreciation Indebtedness, the principal amount thereof plus the interest accrued thereon, compounded at the interest rate thereon on each date as specified in the Indenture.
- "Act" means the Municipal Utility District Act, constituting Division 6 of the Public Utilities Code of the State of California, and all laws of the State of California amendatory thereof or supplemental thereto, including the Revenue Bond Law of 1941, as made applicable by Article 6a of Chapter 6 of said Division 6, and Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California.
- "Annual Debt Service" (I) prior to the Effective Date, means, for any Fiscal Year the aggregate amount of principal and interest on all Water Bonds, Bonds and Parity Debt becoming due and payable during such Fiscal Year calculated using the principles and assumptions set forth under the definition of Maximum Annual Debt Service; and
- (II) on and after the Effective Date, means, for any Fiscal Year, the aggregate amount of principal and interest on all Water Bonds, Bonds and Parity Debt becoming due and payable during such Fiscal Year calculated using the principles and assumptions set forth under the definition of Debt Service.
- "Assumed Debt Service" (I) prior to the Effective Date, means, for any Fiscal Year the aggregate amount of principal and interest which would be payable on all Water Bonds, Bonds and Parity Debt if each Excluded Principal Payment were amortized for a period specified by the District (but no longer than thirty (30) years from the date of the issuance of the Water Bonds, Bonds or Parity Debt to which such Excluded Principal Payment relates) on a substantially level debt service basis, calculated based on a fixed interest rate equal to the rate at which the District could borrow for such period, as certified by a certificate of a financial advisor or investment banker delivered to the Trustee, who may rely conclusively on such certificate, within thirty (30) days of the date of calculation; and
- (II) on and after the Effective Date, means, for any Fiscal Year, the aggregate amount of principal and interest which would be payable on all Water Bonds, Bonds and Parity Debt if each Excluded Principal Payment were amortized for a period specified by the District (but no longer than thirty (30) years from the date of the issuance of the Water Bonds, Bonds or Parity Debt to which such Excluded Principal Payment relates) on a substantially level debt service basis or other amortization basis provided by the District, calculated based on a fixed interest rate equal to the rate at which the District could borrow for such period, as certified by a certificate of a financial advisor or investment banker delivered

to the Trustee, who may rely conclusively on such certificate, within thirty (30) days of the date of calculation.

"Bond Obligation" means, as of any given date of calculation, (1) with respect to any Outstanding Bond or Water Bond which is Current Interest Indebtedness, the principal amount thereof, and (2) with respect to any Outstanding Bond or Water Bond which is Capital Appreciation Indebtedness, the Accreted Value thereof.

"Bonds" means the bonds authorized by, and at any time Outstanding pursuant to, the Indenture.

"Business Day" means any day other than (1) a Saturday, Sunday, or a day on which banking institutions in the State of California or the State of New York are authorized or obligated by law or executive order to be closed, and (2) for purposes of payments and other actions related to Bonds secured by a letter of credit, a day upon which commercial banks in the city in which is located the office of the issuing bank at which demands for payment under the letter of credit are to be presented are authorized or obligated by law or executive order to be closed.

"Capital Appreciation Indebtedness" means Water Bonds, Bonds and Parity Debt on which interest is compounded and paid less frequently than annually.

"Code" means the Internal Revenue Code of 1986, and the regulations applicable thereto or issued thereunder, as amended from time to time.

"Current Interest Indebtedness" means the Water Bonds, Bonds and Parity Debt on which interest is paid at least annually.

"Debt Service" (I) prior to the Effective Date, means, the amount of principal and interest becoming due and payable on all Water Bonds, Bonds and Parity Debt provided, however, that for the purposes of computing Debt Service:

- (a) Excluded Principal Payments shall be excluded from such calculation and Assumed Debt Service shall be included in such calculation:
- (b) if the Water Bonds, Bonds or Parity Debt are Variable Rate Indebtedness, the interest rate thereon for periods when the actual interest rate cannot yet be determined shall be assumed to be twelve percent (12%) per annum;
- (c) principal and interest payments on Water Bonds, Bonds and Parity Debt shall be excluded to the extent such payments are to be paid from amounts on deposit with the Trustee or another fiduciary in escrow specifically therefor and to the extent that such interest payments are to be paid from the proceeds of Water Bonds, Bonds or Parity Debt held by the Trustee or another fiduciary as capitalized interest;
- (d) in determining the principal amount, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any Mandatory Sinking Account Payments or any scheduled redemption or payment of Water Bonds, Bonds or Parity Debt on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value shall be deemed a principal payment and interest that is compounded and paid as Accreted Value shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Indebtedness;

- (e) if any interest rate swap agreement is in effect with respect to, and is payable on a parity with, the Water Bonds, Bonds or Parity Debt to which it relates, no amounts payable under such interest rate swap agreement shall be included in the calculation of Debt Service unless the sum of (i) interest payable on such Water Bonds, Bonds or Parity Debt, plus (ii) amounts payable by the District under such interest rate swap agreement, less (iii) amounts receivable by the District under such interest rate swap agreement are greater than the interest payable on the Water Bonds, Bonds or Parity Debt to which it relates, then, in such instance, the amount of such payments to be made that exceed the interest to be paid on the Water Bonds, Bonds or Parity Debt shall be included in such calculation. For such purposes, the variable amount under any such interest rate swap agreement shall be assumed to be equal to twelve percent (12%) per annum; and
- if any Water Bonds, Bonds or Parity Debt include an option or an obligation to tender all or a portion of such Water Bonds, Bonds or Parity Debt to the District, the Trustee or another fiduciary or agent and require that such Water Bonds, Bonds or Parity Debt or portion thereof be purchased if properly presented, then for purposes of determining the amounts of principal and interest due, the options or obligations to tender shall be treated as a principal maturity occurring on the first date on which holders or owners thereof may or are required to tender, except that any such option or obligation to tender shall be ignored and not treated as a principal maturity, if (1) such Water Bonds, Bonds or Parity Debt are in one of the two highest Rating Categories by Moody's and by Standard & Poor's or such Water Bonds, Bonds or Parity Debt are rated in the highest short-term, note or commercial paper Rating Categories by Moody's and by Standard & Poor's and (2) funds for the purchase price are to be provided by a letter of credit or standby bond purchase agreement and the obligation of the District with respect to the provider of such letter of credit or standby bond purchase agreement, other than its obligations on such Water Bonds, Bonds or Parity Debt, shall be subordinated to the obligation of the District on the Bonds and Parity Debt or, if not subordinate, shall be incurred (assuming such immediate tender) under the conditions and meeting the tests for the issuance of Parity Debt set forth in the Indenture: and
- (II) on and after the Effective Date, means, the amount of principal and interest becoming due and payable on all Water Bonds, Bonds and Parity Debt provided, however, for the purpose of computing Debt Service:
 - (a) Excluded Principal Payments shall be excluded from such calculation and Assumed Debt Service shall be included in such calculation;
 - (b) if the Water Bonds, Bonds or Parity Debt are Variable Rate Indebtedness, the interest rate thereon for periods when the actual interest rate cannot yet be determined shall be assumed to be equal to the average of the SIFMA Municipal Swap Index for the five (5) years preceding such date of calculation (provided, however, that if such index is no longer published, the interest rate on such Water Bonds, Bonds or Parity Debt shall be calculated based upon such similar index as the District shall designate in writing to the Trustee) (the "Assumed SIFMA-based Rate");
 - (c) principal and interest payments on Water Bonds, Bonds and Parity Debt shall be excluded to the extent such payments are to be paid from amounts on deposit with the Trustee or another fiduciary in escrow or trust specifically therefor and to the extent that such interest payments are to be paid from the proceeds of Water Bonds, Bonds or Parity Debt held by the Trustee or another fiduciary as capitalized interest;

- (d) in determining the principal amount, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any Mandatory Sinking Account Payments or any scheduled redemption or payment of Water Bonds, Bonds or Parity Debt on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value shall be deemed a principal payment and interest that is compounded and paid as Accreted Value shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Indebtedness;
- if any interest rate swap agreement is in effect with respect to, and the regularly scheduled payments thereunder are payable on a parity with, the Water Bonds, Bonds or Parity Debt to which it relates, interest deemed to be payable on any such Water Bonds. Bonds or Parity Debt with respect to which an interest rate swap agreement is in effect shall be based on the net economic effect expected by the District to be produced by the terms of such Water Bonds, Bonds or Parity Debt and such interest rate swap agreement, including but not limited to the effects that (i) such Water Bonds, Bonds or Parity Debt would, but for such interest rate swap agreement, be treated as Variable Rate Indebtedness instead shall be treated as Water Bonds, Bonds or Parity Debt bearing interest at a fixed interest rate, and (ii) such Water Bonds, Bonds or Parity Debt would, but for such interest rate swap agreement, be treated as Water Bonds, Bonds or Parity Debt bearing interest at a fixed interest rate instead shall be treated as Variable Rate Indebtedness; and accordingly, the amount of interest deemed to be payable on any Water Bonds, Bonds or Parity Debt with respect to which an interest rate swap agreement is in force shall be an amount equal to the amount of interest that would be payable at the rate or rates stated in such Water Bonds, Bonds or Parity Debt plus the amounts payable by the District under such interest rate swap agreement, minus the amounts receivable by the District under such interest rate swap agreement, and for the purpose of calculating as nearly as practicable such amounts, the following assumptions shall be made:
 - (1) if an interest rate swap agreement has been entered into by the District with respect to Water Bonds, Bonds or Parity Debt providing for the payment of a net variable interest rate under such interest rate swap agreement with respect to such Water Bonds, Bonds or Parity Debt by the District, the interest rate on such Water Bonds, Bonds or Parity Debt for future periods when the actual interest rate cannot yet be determined shall be assumed (but only during the period the interest rate swap agreement is in effect) to be equal to the sum of (A) the fixed rate or rates stated in such Water Bonds, Bonds or Parity Debt minus (B) the fixed rate paid by the counterparty of such interest rate swap agreement to the District, plus (C) the lesser of (x) the interest rate cap, if any, provided by a counterparty with respect to such interest rate swap agreement (but only during the period that such interest rate cap is in effect) and (y) the applicable variable interest rate calculated in accordance with paragraph (b) above; and
 - (2) if an interest rate swap agreement has been entered into by the District with respect to Water Bonds, Bonds or Parity Debt providing for the payment of a fixed rate of interest to maturity or for a specific term under such interest rate swap agreement with respect to such Water Bonds, Bonds or Parity Debt by the District, the interest on such Water Bonds, Bonds or Parity Debt shall be included in the calculation of payments (but only during the period the interest rate swap agreement is in effect) by including for each period of calculation an amount equal to the amount of interest payable at the fixed interest rate pursuant to such interest rate swap agreement.

Notwithstanding any other paragraph of this definition of Debt Service, except as set forth in this paragraph (e), no amounts payable under any interest rate swap agreement (including termination payments) shall be included in the calculation of Debt Service;

- (f) if any Water Bonds, Bonds or Parity Debt are Variable Rate Indebtedness subject to tender for purchase and funds for the purchase price may be provided by a letter of credit, line of credit, revolving credit agreement, standby bond purchase agreement or other liquidity facility which, if drawn upon, could create a repayment obligation which has a lien on Subordinated Water Revenues on parity with the lien of the Water Bonds, Bonds or Parity Debt, then for purposes of determining the amounts of principal due in any Fiscal Year on such Water Bonds, Bonds or Parity Debt, (i) the options or obligations of the owners of such Water Bonds, Bonds or Parity Debt to tender the same for purchase or payment prior to the stated maturity or maturities shall be ignored and not treated as a principal maturity; and (ii) any repayment obligations of the District to the provider of such letter of credit, line of credit, revolving credit agreement, standby bond purchase agreement or other liquidity facility, other than its obligations on such Water Bonds, Bonds or Parity Debt, shall be treated as Excluded Principal Payments; and
- (g) if interest on any Water Bonds, Bonds or Parity Debt is reasonably anticipated to be reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program, then interest payments with respect to such Water Bonds, Bonds or Parity Debt shall be reduced by the amount of such interest reasonably anticipated to be paid or reimbursed by the United States of America.

"Effective Date" means the earlier to occur of: (i) the first date upon which all of the Outstanding Series 2001 Bonds, Series 2002 Bonds, Series 2003 Bonds, Series 2005A Bonds, Series 2007A Bonds, Series 2007B Bonds, Series 2008A Bonds, Series 2008B Bonds and Series 2009A Bonds have been paid or discharged in accordance with their terms and shall no longer be Outstanding for purposes of the Indenture and all obligations of the District under any interest rate swap agreements and any standby bond purchase agreements or other liquidity facilities relating thereto shall have been discharged and satisfied, or (ii) the first date upon which the District has filed with the Trustee the written consents to the amendments to the Indenture set forth in the Sixteenth Supplemental Indenture of (a) the Owners of a majority in aggregate principal amount of Bond Obligation then Outstanding and (b) the providers of any interest rate swap agreements and any standby bond purchase agreements, other liquidity facilities or other agreements relating to such Bond Obligation then Outstanding to the extent the consent thereof shall be required by the terms of such interest rate swap agreements and any standby bond purchase agreements, other liquidity facilities or other agreements, other liquidity facilities or other agreements, other liquidity facilities or other agreements, other liquidity facilities or other agreements, other liquidity facilities or other agreements.

"Excluded Principal Payments" means each payment of principal (or the principal component of lease or installment purchase payments) of Water Bonds, Bonds or Parity Debt which the District determines on a date not later than the date of issuance thereof that the District intends to pay with moneys which are not Water Revenues or Subordinated Water Revenues but from the proceeds of future debt obligations of the District and the Trustee may rely conclusively on such determination of the District.

"Fiscal Year" means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other twelve-month period selected and designated as the official fiscal year period of the District, which designation shall be provided to the Trustee in a certificate of the District.

"Indenture" means the Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the Trustee and the District, as originally executed or as it may from time

to time be supplemented or amended by any Supplemental Indenture delivered pursuant to the provisions thereof.

"Investment Securities" means the following:

- (i) any bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America, including obligations of any of the Federal agencies and Federally sponsored entities set forth in clause (iii) below to the extent unconditionally guaranteed by the United States of America;
- (ii) any certificates, receipts, securities or other obligations evidencing ownership of, or the right to receive, a specified portion of one or more interest payments or principal payments, or any combination thereof, to be made on any bond, note, or other obligation described above in clause (i):
- (iii) obligations of the Federal National Mortgage Association, the Government National Mortgage Association, Federal Home Loan Banks and Federal Home Loan Mortgage Corporation;
- (iv) obligations of any state, territory or commonwealth of the United States of America or any political subdivision thereof or any agency or department of the foregoing; provided that at the time of their purchase such obligations are rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- any bonds or other obligations of any state of the United States of America or any political subdivision thereof (a) which are not callable prior to maturity or as to which irrevocable instructions have been given to the trustee of such bonds or their obligations by the obligor to give due notice of redemption and to call such bonds for redemption on the date or dates specified in such instructions, (b) which are secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash or bonds or other obligations of the character described above in clause (i), (ii) or (iii) which fund may be applied only to the payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the interest payment dates and the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, (c) as to which the principal of and interest on the bonds and obligations of the character described above in clause (i), (ii) or (iii) which have been deposited in such fund along with any cash on deposit in such fund are sufficient to pay the principal of and interest and redemption premium, if any, on the bonds or other obligations described in this clause (v) on the interest payment dates and the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in subclause (a) of this clause (v), as appropriate, and (d) which have been rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (vi) bonds, notes, debentures or other evidences of indebtedness issued or guaranteed by any corporation which are, at the time of purchase, rated by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds) in their respective highest short-term Rating Categories, or, if the term of such indebtedness is longer than three (3) years, rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);

- (vii) demand or time deposits or certificates of deposit, whether negotiable or nonnegotiable, issued by any bank or trust company organized under the laws of any state of the United States of America or any national banking association (including the Trustee), provided that such certificates of deposit shall be purchased directly from such a bank, trust company or national banking association and shall be either (1) continuously and fully insured by the Federal Deposit Insurance Corporation, or (2) continuously and fully secured by such securities and obligations as are described above in clauses (i) through (iv), inclusive, which shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such certificates of deposit, and the bank, trust company or national banking association issuing each such certificate of deposit required to be so secured shall furnish the Trustee with an undertaking satisfactory to it that the aggregate market value of all such obligations securing each such certificate of deposit will at all times be an amount equal to the principal amount of each such certificate of deposit and the Trustee shall be entitled to rely on each such undertaking;
- (viii) taxable commercial paper or tax-exempt commercial paper rated in their respective highest Rating Categories by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (ix) variable rate obligations required to be redeemed or purchased by the obligor or its agent or designee upon demand of the holder thereof secured as to such redemption or purchase requirement by a liquidity agreement with a corporation and as to the payment of interest and principal either upon maturity or redemption (other than upon demand by the holder thereof) thereof by an unconditional credit facility of a corporation, provided that the variable rate obligations themselves are rated in their respective highest Rating Categories for its short-term rating, if any, and not lower than their respective ratings on the Bonds for its long-term rating, if any, by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds), and that the corporations providing the liquidity agreement and credit facility have, at the date of acquisition of the variable rate obligation by the Trustee, an outstanding issue of unsecured, uninsured and unguaranteed debt obligations rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- any repurchase agreement with any bank or trust company organized under the laws of any state of the United States or any national banking association (including the Trustee) having a minimum permanent capital of one hundred million dollars (\$100,000,000) and with short-term debt rated by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds) in their respective four highest short-term rating categories or government bond dealer reporting to, trading with, and recognized as a primary dealer by the Federal Reserve Bank of New York, which agreement is secured by any one or more of the securities and obligations described in clauses (i), (ii) or (iii) above, which shall have a market value (exclusive of accrued interest and valued at least monthly) at least equal to the principal amount of such investment and shall be lodged with the Trustee or other fiduciary, as custodian for the Trustee, by the bank, trust company, national banking association or bond dealer executing such repurchase agreement, and the entity executing each such repurchase agreement required to be so secured shall furnish the Trustee with an undertaking satisfactory to it that the aggregate market value of all such obligations securing each such repurchase agreement (as valued at least monthly) will be an amount equal to the principal amount of each such repurchase agreement and the Trustee shall be entitled to rely on each such undertaking;

- (xi) any cash sweep or similar account arrangement of or available to the Trustee, the investments of which are limited to investments described in clauses (i), (ii), (iii), (iv) and (x) of this definition of Investment Securities and any money market fund, the entire investments of which are limited to investments described in clauses (i), (ii), (iii), (iv) and (x) of this definition of Investment Securities and which money market fund is rated in their respective highest Rating Categories by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds); provided that as used in this clause (xi) and clause (xii) investments will be deemed to satisfy the requirements of clause (x) if they meet the requirements set forth in clause (x) ending with the words "clauses (i), (ii) or (iii) above" and without regard to the remainder of such clause (x);
- (xii) a guaranteed investment contract with a financial institution or insurance company which has at the date of execution thereof an outstanding issue of unsecured, uninsured and unguaranteed debt obligations or a claims paying ability rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (xiii) shares of beneficial interest in diversified management companies investing exclusively in securities and obligations described in clauses (i) through (xii) of this definition of Investment Securities and which companies are rated in their respective highest Rating Categories by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds) or have an investment advisor registered with the Securities and Exchange Commission with not less than five years' experience investing in such securities and obligations and with assets under management in excess of \$500,000,000; and
- (xiv) any investment approved by the Board for which confirmation is received from each rating agency then rating any of the Bonds that such investment will not adversely affect such agency's rating on such Bonds.
- "Mandatory Sinking Account Payment" means the amount required to be deposited by the District in a sinking account for the payment of term Bonds.
- "Maximum Annual Debt Service" (I) prior to the Effective Date, means, the greatest amount of principal and interest becoming due and payable on all Water Bonds, Bonds and Parity Debt in the Fiscal Year in which the calculation is made or any subsequent Fiscal Year; provided, however, that for the purposes of computing Maximum Annual Debt Service:
 - (a) Excluded Principal Payments shall be excluded from such calculation and Assumed Debt Service shall be included in such calculation:
 - (b) if the Water Bonds, Bonds or Parity Debt are Variable Rate Indebtedness, the interest rate thereon for periods when the actual interest rate cannot yet be determined shall be assumed to be twelve percent (12%) per annum;
 - (c) principal and interest payments on Water Bonds, Bonds and Parity Debt shall be excluded to the extent such payments are to be paid from amounts on deposit with the Trustee or another fiduciary in escrow specifically therefor and to the extent that such interest payments are to be paid from the proceeds of Water Bonds, Bonds or Parity Debt held by the Trustee or another fiduciary as capitalized interest;

- (d) in determining the principal amount due in each Fiscal Year, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any Mandatory Sinking Account Payments or any scheduled redemption or payment of Water Bonds, Bonds or Parity Debt on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value shall be deemed a principal payment and interest that is compounded and paid as Accreted Value shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Indebtedness;
- (e) if any interest rate swap agreement is in effect with respect to, and is payable on a parity with, the Water Bonds, Bonds or Parity Debt to which it relates, no amounts payable under such interest rate swap agreement shall be included in the calculation of Maximum Annual Debt Service unless the sum of (i) interest payable on such Water Bonds, Bonds or Parity Debt, plus (ii) amounts payable by the District under such interest rate swap agreement, less (iii) amounts receivable by the District under such interest swap agreement are greater than the interest payable on the Water Bonds, Bonds or Parity Debt to which it relates, then, in such instance, the amount of such payments to be made that exceed the interest to be paid on the Water Bonds, Bonds or Parity Debt shall be included in such calculation. For such purposes, the variable amount under any such interest rate swap agreement shall be assumed to be equal to twelve percent (12%) per annum; and
- if any Water Bonds, Bonds or Parity Debt include an option or an obligation to tender all or a portion of such Water Bonds, Bonds or Parity Debt to the District, the Trustee or another fiduciary or agent and require that such Water Bonds, Bonds or Parity Debt or portion thereof be purchased if properly presented, then for purposes of determining the amounts of principal and interest due in any Fiscal Year, the options or obligations to tender shall be treated as a principal maturity occurring on the first date on which holders or owners thereof may or are required to tender, except that any such option or obligation to tender shall be ignored and not treated as a principal maturity, if (1) such Water Bonds, Bonds or Parity Debt are rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and by Standard & Poor's (if Standard and Poor's is then rating the Bonds) or such Water Bonds, Bonds or Parity Debt are rated in the highest short-term note or commercial paper Rating Categories by Moody's (if Moody's is then rating the Bonds) and by Standard & Poor's (if Standard and Poor's is then rating the Bonds) and (2) funds for the purchase price are to be provided by a letter of credit or standby bond purchase agreement and the obligation of the District with respect to the provider of such letter of credit or standby bond purchase agreement, other than its obligations on such Water Bonds, Bonds or Parity Debt, shall be subordinated to the obligation of the District on the Bonds and Parity Debt or, if not subordinate, shall be incurred (assuming such immediate tender) under the conditions and meeting the tests for the issuance of Parity Debt set forth in the Indenture; and
- (II) on and after the Effective Date, means, the greatest amount of principal and interest becoming due and payable on all Water Bonds, Bonds and Parity Debt in the Fiscal Year in which the calculation is made or any subsequent Fiscal Year calculated using the principles and assumptions set forth under the definition of Debt Service.

"Moody's" means Moody's Investors Service, a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, and its successors and assigns, except that if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, then the term "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency selected by the District and not objected to by the Trustee.

- "Opinion of Bond Counsel" means a written opinion of a law firm of national standing in the field of public finance selected by the District and not objected to by the Trustee.
- "Outstanding," when used at any particular time with reference to Bonds, means (subject to the provisions relating to disqualified bonds) all Bonds theretofore, or thereupon being, authenticated and delivered by the Trustee under the Indenture except (1) Bonds theretofore cancelled by the Trustee or surrendered to the Trustee for cancellation; (2) Bonds with respect to which all liability of the District shall have been discharged under the Indenture; and (3) Bonds for the transfer or exchange of or in lieu of or in substitution for which other Bonds shall have been authenticated and delivered by the Trustee pursuant to the Indenture.
- "Owner" or "Bondholder" or "Bondowner," whenever used with respect to a Bond, means the person in whose name such Bond is registered.
- **"Parity Debt"** means any indebtedness, installment sale obligation, lease obligation or other obligation of the District for borrowed money or interest rate swap agreement having an equal lien and charge upon the Subordinated Water Revenues and therefore payable on a parity with the Bonds (whether or not any Bonds are Outstanding).
- **"Person"** means a corporation, firm, association, partnership, trust, or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.
- "Rating Category" means (i) with respect to any long-term rating category, all ratings designated by a particular letter or combination of letters, without regard to any numerical modifier, plus or minus sign or other modifier and (ii) with respect to any short-term or commercial paper rating category, all ratings designated by a particular letter or combination of letters and taking into account any numerical modifier, but not any plus or minus sign or other modifier.
- **"Redemption Price"** means with respect to any Bond (or portion thereof) the principal amount of such Bond (or portion thereof) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and the Indenture.
- "Revenue Fund" means the fund held in trust by the District to which the Subordinated Water Revenues are required to be deposited.
- "Series" whenever used with respect to Bonds, means all of the Bonds designated as being of the same series, authenticated and delivered in a simultaneous transaction, regardless of variations in maturity, interest rate, redemption and other provisions, and any Bonds thereafter authenticated and delivered upon transfer or exchange or in lieu of or in substitution for (but not to refund) such Bonds as provided in the Indenture.
- **"SIFMA Municipal Swap Index"** means, on any date, a rate determined on the basis of the seven-day high grade market index of tax-exempt variable rate demand obligations, as produced by Municipal Market Data and published or made available by the Securities Industry & Financial Markets Association (formerly the Bond Market Association) ("SIFMA") or by any Person acting in cooperation with or under the sponsorship of SIFMA and effective from such date.
- "Standard & Poor's" means Standard & Poor's Corporation, a corporation duly organized and existing under and by virtue of the laws of the State of New York, and its successors and assigns, except that if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a

securities rating agency, then the term "Standard & Poor's" shall be deemed to refer to any other nationally recognized securities rating agency selected by the District and not objected to by the Trustee.

"Subordinated Water Revenues" for any fiscal period means the sum of (a) the Water Revenues for such fiscal period plus (b) the amounts, if any, withdrawn by the District from the Rate Stabilization Fund created in the Water Bond Resolution for treatment as Water Revenues for such fiscal period, less the sum of (c) all Water Operation and Maintenance Costs for such fiscal period, (d) the amounts, if any, withdrawn by the District from Water Revenues for such fiscal period for deposit in such Rate Stabilization Fund, and (e) all amounts required to be paid under the Water Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Water Bonds as the same become due and payable.

"Variable Rate Indebtedness" means any indebtedness the interest rate on which is not fixed at the time of incurrence of such indebtedness, and has not at some subsequent date been fixed, at a single numerical rate for the entire term of the indebtedness.

"Water Bond Resolution" means Resolution No. 30050 of the District, adopted on January 26, 1982, as amended and supplemented from time to time. All obligations of the District under the Water Bond Resolution have ceased and been discharged; provided, however, that the Rate Stabilization Fund created thereunder shall continue.

"Water Bonds" means all bonds and other obligations of the District issued pursuant to the Water Bond Resolution.

"Water Operation and Maintenance Costs" means the reasonable and necessary costs of maintaining and operating the Water System, calculated on sound accounting principles, including (among other things) the reasonable expenses of management, repair and other expenses necessary to maintain and preserve the Water System in good repair and working order, and reasonable amounts for administration, overhead, insurance, taxes and other similar costs, but excluding in all cases depreciation and obsolescence charges or reserves therefor and amortization of intangibles or other bookkeeping entries of a similar nature, and excluding all costs paid from the proceeds of taxes received by the District.

"Water Revenues" (I) prior to the Effective Date, means, 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, together with income from the investment of any moneys in any fund or account established under the Water Bond Resolution or the Indenture; and

(II) from and after the Effective Date, means, 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, together with income from the investment of any moneys in any fund or account established under the Water Bond Resolution or the Indenture; provided, however, there shall be excluded therefrom any amounts reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program.

"Water System" means the entire water system of the District and all of the facilities thereof, including all facilities for the storage, transmission or distribution of water or the generation or transmission of hydroelectric power, together with all additions, betterments, extensions and improvements to said system or any part thereof. The term "Water System" does not include the sewage disposal system or facilities of Special District No. 1 of the District (including any power generation facilities constituting a part of said system).

Pledge of Revenues

The Bonds are revenue obligations of the District and are payable as to both principal and interest, and any premium upon redemption thereof, exclusively from the Subordinated Water Revenues and other amounts held by the Trustee (except for amounts held in the Rebate Fund). The Subordinated Water Revenues are pledged to the payment of Bonds and Parity Debt without priority or distinction of one over the other. Said pledge constitutes a first lien on the Subordinated Water Revenues and such other amounts referred to in this paragraph.

Allocation of Subordinated Water Revenues

The District is to transfer the moneys in the Revenue Fund, into the following respective funds, in the following amounts, in the following order of priority, the requirements of each such fund (including the making up of any deficiencies in any such fund resulting from lack of Subordinated Water Revenues sufficient to make any earlier required deposit) at the time of deposit to be satisfied before any deposit is made to any fund subsequent in priority.

- (1) <u>Interest Fund</u>. The District shall transfer to the Trustee and the Trustee shall set aside in the Interest Fund on or before the Business Day prior to each interest payment date therefor an amount equal to the interest becoming due and payable on the Outstanding Bonds which are Current Interest Indebtedness (excluding any interest for which there are moneys on deposit in the Interest Fund from the proceeds of any Series of Bonds or other source to pay such interest).
- (2) Principal Fund; Sinking Accounts. The District shall transfer to the Trustee and the Trustee shall set aside in the Principal Fund on or before the Business Day prior to each principal or Sinking Account payment date therefor an amount equal to (a) the amount of Bond Obligation becoming due and payable on the Outstanding Serial Bonds, plus (b) the Mandatory Sinking Account Payments to be paid into the respective Sinking Accounts for the Term Bonds; provided that if the District certifies to the Trustee that any principal payments are expected to be refunded on or prior to their respective due dates or paid from excess amounts on deposit in a bond reserve fund upon such payment, no amounts need be set aside towards such principal to be so refunded or paid. All of the aforesaid Mandatory Sinking Account Payments shall be made without priority of any payment into any one such Sinking Account over any other such payment.
- (3) <u>Bond Reserve Funds</u>. Upon the occurrence of any deficiency in any Bond Reserve Fund established under the Indenture for any Series of Bonds, the District shall transfer to the Trustee and the Trustee shall set aside in such Bond Reserve Fund an amount equal to the aggregate amount of each unreplenished prior withdrawal from the Bond Reserve Fund until there is on deposit in such Bond Reserve Fund an amount equal to the respective reserve requirement.

Any Subordinated Water Revenues remaining after the foregoing transfers shall be held free and clear of the Indenture by the District and it may use and apply such Subordinated Water Revenues for any lawful purpose of the District, including the redemption and purchase of Bonds.

If on any principal payment date, interest payment date or mandatory redemption date the amounts on deposit in the Interest Fund and Principal Fund, including the Sinking Accounts therein are insufficient to make such payments, the Trustee shall immediately notify the District of such deficiency and direct that the District transfer the amount of such deficiency to the Trustee on such payment date. The District covenants and agrees to transfer to the Trustee from any Subordinated Water Revenues in its

possession the amount of such deficiency on the principal, interest or mandatory redemption date referenced in such notice.

Investments

All moneys in any of the funds and accounts held by the Trustee shall be invested, as directed by the District, solely in Investment Securities.

The District may and the Trustee shall, upon the Request of the District, enter into a financial futures or financial option contract with an entity the debt securities of which are rated in their respective highest short-term Rating Categories by Moody's and Standard & Poor's.

The District may and the Trustee shall, upon the Request of the District, and provided that the Trustee is supplied with an Opinion of Bond Counsel to the effect that such action is permitted under the laws of the State of California, enter into an interest rate swap agreement corresponding to the interest rate or rates payable on a Series of Bonds or any portion thereof and the amounts received by the District or the Trustee, if any, pursuant to such a swap agreement may be applied to the deposits required hereunder; in which case, the entity with which the District or the Trustee may contract for an interest rate swap is limited to entities the debt securities of which are rated in their respective highest short-term debt Rating Categories by Moody's and Standard & Poor's. If the District so designates, amounts payable under the interest rate swap agreement shall be secured by Subordinated Water Revenues and other assets pledged hereunder to the Bonds on a parity basis therewith and, in such event, the District shall pay to the Trustee for deposit in the Interest Fund, at the times and in the manner provided in the Indenture, the amounts to be paid under such interest rate swap agreement, as if such amounts were additional interest due on the Bonds to which such interest rate swap agreement relates, and the Trustee shall pay to the other party to the interest rate swap agreement, to the extent required thereunder, amounts deposited in the Interest Fund for the payment of interest on the Bonds with respect to which such agreement was entered into.

Additional Bonds; Parity Debt

The issuance of additional Water Bonds was not initially limited by the Indenture. However, the District has covenanted pursuant to the Eighteenth Supplemental Indenture that it will not issue any senior Water Bonds in the future.

The District may issue Bonds and Parity Debt payable from Subordinated Water Revenues and secured equally and ratably with Bonds previously issued, subject to the following specific conditions precedent to the issuance of any such additional Bonds or Parity Debt:

- (a) No Event of Default shall have occurred and then be continuing.
- (b) The aggregate principal amount of Bonds or Parity Debt shall not exceed any limitation imposed by law or by any Supplemental Indenture.
- (c) The District shall have placed on file with the Trustee a Certificate of the District certifying that the sum of: (1) the Subordinated Water Revenues plus all amounts required to be paid under the Water Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Water Bonds for any period of 12 consecutive months during the 18 months immediately preceding the date on which such additional Bonds or Parity Debt will become Outstanding; plus (2) 90% of the amount by which the District projects Subordinated Water Revenues for such period of 12 months would have been increased had increases in rates,

fees and charges during such period of 12 months been in effect throughout such period of 12 months; plus (3) 75% of the amount by which the District projects Subordinated Water Revenues will increase during the period of 12 months commencing on the date of issuance of such additional Series of Bonds due to improvements to the Water System under construction (financed from any source) or to be financed with the proceeds of such additional Series of Bonds, shall (4) have been at least equal to 1.1 times the amount of Maximum Annual Debt Service on all Water Bonds, Bonds and Parity Debt then Outstanding and the additional Bonds or Parity Debt then proposed to be issued.

Refunding Bonds

Refunding Bonds may be authorized and issued by the District without compliance with the provisions described above under "Additional Bonds; Parity Debt," provided that Maximum Annual Debt Service on all Water Bonds, Bonds and Parity Debt Outstanding following the issuance of such refunding Bonds is less than or equal to Maximum Annual Debt Service on all Water Bonds, Bonds and Parity Debt Outstanding prior to the issuance of such refunding Bonds.

Covenants

Among other covenants the District has agreed as follows:

The District will not create any pledge, lien or charge upon any of the Subordinated Water Revenues having priority over or having parity with the lien of the Bonds except only as described above. The District will not amend or change the Water Bond Resolution in any manner which would permit the issuance of additional Water Bonds in a greater principal amount than would have been permitted thereunder prior to such amendment or change or reduce the debt service percentage or coverage requirements contained therein. The District will not issue Water Bonds pursuant to the Water Bond Resolution in such amount as would cause the District to fail to be in compliance with the rate covenant described in the second succeeding paragraph hereof.

The District will not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the interest on the Bonds under Section 103 of the Code, if applicable. The District will not directly or indirectly use or permit the use of any proceeds of the Bonds or any other funds of the District, or take or omit to take any action that would cause the Bonds to be "arbitrage bonds" within the meaning of Section 148(a) of the Code, if applicable. To that end, the District will comply with all requirements of Section 148 of the Code to the extent applicable to the Bonds.

The District will, at all times while any of the Bonds remain Outstanding, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Water System so as to yield Water Revenues in each Fiscal Year sufficient so that the sum of the Subordinated Water Revenues for such year plus all amounts required to be paid under the Water Bond Resolution for such year for principal, interest, reserve fund and any other debt service requirements on the Water Bonds shall be at least equal to 1.1 times the amount of Debt Service on all Water Bonds, Bonds and Parity Debt Outstanding for such Fiscal Year.

The District will maintain and preserve the Water System in good repair and working order at all times, and will operate the Water System in an efficient and economical manner. Subject in each case to the condition that insurance is obtainable at rates deemed reasonable by the District and upon terms and conditions deemed reasonable by the District, the District will procure and maintain at all times: (a) insurance on the Water System against such risks as and in such amounts as the District deems prudent

taking into account insurance coverage for similar utilities, and (b) public liability insurance in such amounts as the District deems prudent taking into account insurance coverage for similar utilities.

Events of Default; Remedies

The following events are Events of Default under the Indenture:

- (a) default in the due and punctual payment of the principal or Redemption Price of any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, by declaration or otherwise, or default in the redemption from any Sinking Account of any Bonds in the amounts and at the times provided therefor;
- (b) default in the due and punctual payment of any installment of interest on any Bond when and as such interest installment shall become due and payable;
- (c) if the District shall fail to observe or perform any covenant, condition, agreement or provision in the Indenture on its part to be observed or performed, other than as referred to in subsection (a) or (b), for a period of sixty (60) days after written notice, specifying such failure and requesting that it be remedied, has been given to the District by the Trustee; except that, if such failure can be remedied but not within such sixty (60) day period and if the District has taken all action reasonably possible to remedy such failure within such sixty (60) day period, such failure shall not become an Event of Default for so long as the District shall diligently proceed to remedy the same in accordance with and subject to any directions or limitations of time established by the Trustee;
- (d) if any default shall exist under any agreement governing any Parity Debt and such default shall continue beyond the therein stated grace period, if any, with respect to such default:
- (e) if any default shall exist under the Water Bond Resolution and such default shall continue beyond the therein stated grace period, if any, with respect to such default;
- (f) if the District files a petition in voluntary bankruptcy, for the composition of its affairs or for its corporate reorganization under any state or Federal bankruptcy or insolvency law, or makes an assignment for the benefit of creditors, or admits in writing to its insolvency or inability to pay debts as they mature, or consents in writing to the appointment of a trustee or receiver for itself;
- (g) if a court of competent jurisdiction shall enter an order, judgment or decree declaring the District insolvent, or adjudging it bankrupt, or appointing a trustee or receiver of the District, or approving a petition filed against the District seeking reorganization of the District under any applicable law or statute of the United States of America or any state thereof, and such order, judgment or decree shall not be vacated or set aside or stayed within 60 days from the date of the entry thereof; and
- (h) if, under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the District or of the Subordinated Water Revenues, and such custody or control shall not be terminated within 60 days from the date of assumption of such custody or control.

If an Event of Default shall occur and be continuing, the District is to immediately transfer to the Trustee all Subordinated Water Revenues held by it and received thereafter and the Trustee shall apply all Subordinated Water Revenues and any other funds then held or thereafter received by the Trustee under any of the provisions of the Indenture (except as otherwise provided in the Indenture) as follows and in the following order:

- (1) To the payment of any expenses necessary in the opinion of the Trustee to protect the interests of the Owners of the Bonds and Parity Debt, including the costs and expenses of the Trustee and the Bondholders in declaring such Event of Default, and payment of reasonable fees and expenses of the Trustee (including reasonable fees and disbursements of its counsel and other agents) incurred in and about the performance of its powers and duties under the Indenture;
- (2) To the payment of the whole amount of Bond Obligation then due on the Bonds and Parity Debt (upon presentation of the Bonds and Parity Debt to be paid, and stamping thereon of the payment if only partially paid, or surrender thereof if fully paid) subject to the provisions of the Indenture, with interest on such Bond Obligation, at the rate or rates of interest borne by the respective Bonds and Parity Debt, to the payment to the persons entitled thereto of all installments of interest then due and the unpaid principal or Redemption Price of any Bonds and Parity Debt which shall have become due, whether at maturity or by call for redemption, in the order of their due dates, with interest on the overdue Bond Obligation and Parity Debt at the rate borne by the respective Bonds and Parity Debt, and, if the amount available shall not be sufficient to pay in full all the Bonds and Parity Debt due on any date, together with such interest, then to the payment thereof ratably, according to the amounts of principal or interest or Accreted Value (plus accrued interest) due on such date to the persons entitled thereto, without any discrimination or preference.

In each and every such case during the continuance of such Event of Default, the Owners of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding shall be entitled, upon notice in writing to the District, to declare the principal of all of the Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable.

This provision, however, is subject to the condition that if, at any time after the principal of the Bonds shall have been so declared due and payable, the District shall pay to or shall deposit with the Trustee a sum sufficient to pay all principal on such Bonds matured prior to such declaration and all matured installments of interest (if any) upon all the Bonds, and the reasonable expenses of the Trustee, and any and all other defaults known to the Trustee (other than in the payment of principal of and interest on the Bonds due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Trustee, or provision deemed by the Trustee to be adequate shall have been made therefor, then, and in every such case, the Owners of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, by written notice to the District and to the Trustee, may, on behalf of the Owners of all the Bonds, rescind and annul such declaration and its consequences; but no such rescission and annulment shall extend to or shall affect any subsequent default, or shall impair or exhaust any right or power consequent thereon.

The Trustee is appointed (and the successive respective Owners of the Bonds, by taking and holding the same, shall be conclusively deemed to have so appointed the Trustee) to represent the Owners in the matter of exercising and prosecuting on their behalf such rights and remedies as may be available to such Owners under the provisions of the Bonds, the Indenture, the Act and applicable provisions of any other law. Upon any default or other occasion, giving rise to a right in the Trustee to represent the Bondholders, the Trustee may take such action as may seem appropriate and, upon the request in writing

of Owners of not less than twenty-five percent (25%) in aggregate principal amount of Bonds then Outstanding, and upon being indemnified to its satisfaction therefor, shall proceed to protect or enforce its rights or the rights of such Owners by such appropriate actions as it shall deem most effectual to protect and enforce any such right.

No remedy conferred upon or reserved to the Trustee or to the Owners of the Bonds is intended to be exclusive of any other remedy or remedies, and each and every such remedy to the extent permitted by law, shall be cumulative and in addition to any other remedy given under the Indenture or now or hereafter existing at law or in equity or otherwise.

Amendments

The Indenture and the rights and obligations of the District, the Owners of the Bonds and the Trustee may be modified or amended at any time by a Supplemental Indenture, with the written consent of the Owners of a majority in the aggregate amount of Bonds then Outstanding. No such modification or amendment shall (a) extend the fixed maturity of any Bond or reduce the amount of principal thereof, or extend the time of payment or reduce the amount of any Mandatory Sinking Account Payment provided for the payment of any Bonds, or reduce the rate of interest thereon, or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the Owner of each Bond so affected, or (b) reduce the aforesaid percentage of Bond Obligation the consent of the Owners of which is required to effect any such modification or amendment, or permit the creation of any lien on the Subordinated Water Revenues and other assets pledged under the Indenture, or deprive the Owners of the Bonds of the lien created by the Indenture on such Subordinated Water Revenues and other assets, without the consent of the Owners of all of the Bonds then Outstanding.

The Indenture may also be modified or amended at any time with the written consents of each provider of a letter of credit or a policy of bond insurance for the Bonds, provided that at such time the payment of all the principal of and interest on all Outstanding Bonds shall be insured by a policy or policies of municipal bond insurance or payable under a letter of credit the provider of which shall be a financial institution or association having unsecured debt obligations rated, or insuring or securing other debt obligations rated on the basis of such insurance or letters of credit, rated not lower than the respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) or Standard & Poor's (if Standard & Poor's is then rating the Bonds).

The Indenture and the rights and obligations of the District, of the Trustee and the Owners of the Bonds may also be modified or amended at any time by a Supplemental Indenture, without the consent of any Bondholders but only to the extent permitted by law and only for any one or more of the following purposes:

- (1) to add to the covenants and agreements of the District or to surrender any right or power reserved to or conferred upon the District;
- (2) to make such provisions for the purpose of curing any omission or ambiguity, or of curing or correcting any defective provision contained in the Indenture, or in regard to questions arising under the Indenture, as the District may deem necessary or desirable, and which shall not materially and adversely affect the interests of the Owners of the Bonds;
- (3) to modify the Indenture in such manner as to permit qualification under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect, and to add such other terms, conditions and provisions as may be permitted by said act or similar federal

statutes and which shall not materially and adversely affect the interests of the Owners of the Bonds:

- (4) to make modifications or adjustments necessary or desirable to provide for the issuance of Variable Rate Indebtedness, Capital Appreciation Indebtedness or Parity Debt, with such interest rate, payment, maturity and other terms as the District may deem desirable, subject to the provisions of the Indenture;
- (5) to provide for the issuance of Bonds in book-entry form or bearer form, provided that such provisions shall not materially and adversely affect the interest of the Owners of the Bonds;
- (6) if the District agrees in a Supplemental Indenture to maintain the exclusion of interest on a Series of Bonds from gross income for purposes of federal income taxation, to make such provisions as are necessary or appropriate to ensure such exclusion;
- (7) to provide for the issuance of an additional Series of Bonds pursuant to provisions of the Indenture; and
- (8) for any other purpose that does not materially and adversely affect the interests of the Owners of the Bonds.

Defeasance

Bonds may be paid by the District in any of the following ways:

- (a) by paying or causing to be paid the Bond Obligations of and interest on such Outstanding Bonds, as and when the same become due and payable;
- (b) by depositing with the Trustee, an escrow agent or other fiduciary, in trust, at or before maturity, money or securities in the necessary amount to pay or redeem such Outstanding Bonds; or
 - (c) by delivering to the Trustee, for cancellation by it, such Outstanding Bonds.

Upon the deposit with the Trustee, escrow agent or other fiduciary, in trust, at or before maturity, of money or securities in the necessary amount to pay or redeem any Outstanding Bond (whether upon or prior to its maturity or the redemption date of such Bond), provided that, if such Bond is to be redeemed prior to maturity, notice of such redemption shall have been given or provision satisfactory to the Trustee shall have been made for the giving of such notice, then all liability of the District in respect of such Bond shall cease, terminate and be completely discharged, provided that the Owner thereof shall thereafter be entitled to the payment of the principal of and premium, if any, and interest on the Bonds, and the District shall remain liable for such payment, but only out of such money or securities deposited with the Trustee as aforesaid for their payments.

The District may at any time surrender to the Trustee for cancellation by it any Bonds previously issued and delivered, which the District may have acquired in any manner whatsoever, and such Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired.

Whenever in the Indenture it is provided or permitted that there be deposited with or held in trust by the Trustee money or securities in the necessary amount to pay or redeem any Bonds, the money or

securities so to be deposited or held may include money or securities held by the Trustee in the funds and accounts established pursuant to the Indenture and shall be:

- (a) lawful money of the United States of America in an amount equal to the principal amount of such Bonds and all unpaid interest thereon to maturity, except that, in the case of Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption shall have been given or provision satisfactory to the Trustee shall have been made for the giving of such notice, the amount to be deposited or held shall be the principal amount or Redemption Price of such Bonds and all unpaid interest thereon to the redemption date; or
- (b) Investment Securities described in clauses (i), (ii) or (v) of the definition thereof, the principal of and interest on which when due will, in the opinion of an independent certified public accountant delivered to the Trustee (upon which opinion the Trustee may conclusively rely), provide money sufficient to pay the principal or Redemption Price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Bonds to be paid or redeemed, as such principal or Redemption Price and interest become due, provided that, in the case of Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as required by the Indenture or provision satisfactory to the Trustee shall have been made for the giving of such notice; provided, in each case, that the Trustee shall have been irrevocably instructed (by the terms of the Indenture or by Request of the District) to apply such money to the payment of such principal or Redemption Price and interest with respect to such Bonds.

APPENDIX D

PROPOSED FORMS OF CO-BOND COUNSEL OPINION AND SPECIAL TAX COUNSEL OPINION

PROPOSED FORM OF CO-BOND COUNSEL OPINION

Upon the delivery of the Series 2017 Bonds, Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel, propose to render their final approving opinion with respect to the Series 2017 Bonds in substantially the following form:

[Closing Date]

East Bay Municipal Utility District Oakland, California

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California)

Series 2017A (Green Bonds)

Water System Revenue Bonds, Water System Revenue/Refunding Bonds, Series 2017B

Ladies and Gentlemen:

We have acted as co-bond counsel to the East Bay Municipal Utility District (the "District") in connection with the issuance of its \$_____ aggregate principal amount of Water System Revenue Bonds, Series 2017A (Green Bonds) (the "Series 2017A Bonds") and \$_____ aggregate principal amount of Water System Revenue/Refunding Bonds, Series 2017B (the "Series 2017B Bonds" and, together with the Series 2017A Bonds, the "Series 2017 Bonds"). The Series 2017 Bonds are being issued pursuant to the Municipal Utility District Act (constituting Division 6 of the Public Utilities Code of the State of California, as amended) and the Revenue Bond Law of 1941 as made applicable by Article 6a of Chapter 6 of Division 6 of the Municipal Utility District Act, and with respect to such portion of the Series 2017 Bonds issued to refund outstanding bonds of the District, Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California, as amended (collectively, the "Act"), and a Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Series 2017 Bonds (collectively, the "Indenture").

In our capacity as co-bond counsel, we have reviewed the Act, the Indenture, certifications of the District, the Trustee, and others, opinions of counsel to the District and the Trustee, and such other documents, opinions and instruments as we deemed necessary to render the opinions set forth herein. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Indenture.

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We have assumed the genuineness of all documents and signatures presented to us. We have not undertaken to verify independently, and have assumed, the accuracy of the factual matters represented, warranted or certified in the documents. Furthermore, we have assumed compliance with all covenants and agreements contained in the Indenture. In addition, we call attention to the fact that the rights and obligations under the Series 2017 Bonds and the Indenture are subject to bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other similar laws affecting creditors' rights, to the application of equitable principles, to the possible unavailability of specific performance or injunctive relief, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California. Furthermore, the imposition of certain fees and charges by the District relating to the Water System may be subject to the provisions of Articles XIIIC and XIIID of the California Constitution.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions:

- 1. The Series 2017 Bonds constitute the valid and binding special limited obligations of the District.
- 2. The Indenture has been duly authorized, executed and delivered by, and constitutes the valid and binding obligation of, the District. The Indenture creates a valid pledge, to secure the payment of the principal of and interest on the Series 2017 Bonds, of the Subordinated Water Revenues of the District, and certain other amounts held by the Trustee under the Indenture, as and to the extent set forth in the Indenture and subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein.
- 3. The Series 2017 Bonds are special limited obligations of the District and are payable exclusively from and are secured by a pledge of Subordinated Water Revenues of the District and certain other amounts held by the Trustee under the Indenture, as and to the extent set forth in the Indenture and subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein. The general fund of the District is not liable, and neither the credit nor taxing power of the District is pledged, for the payment of the Series 2017 Bonds or the interest thereon.
- 4. Other bonds and parity debt of the District have been and may from time to time hereafter be issued under the Indenture which are payable from Subordinated Water Revenues on a parity basis with the Series 2017 Bonds.

We express no opinion as to any federal, state or local tax consequences of the ownership or disposition of the Series 2017 Bonds or the receipt of interest thereon.

Our opinions are based on existing law, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may hereafter come to our attention or to reflect any changes in any law that may hereafter occur or become effective. Moreover, our opinions are not a guarantee of result and represent our legal judgment based upon our review of existing law that we deem relevant to such opinions and in reliance upon the representations and covenants referenced above.

No opinion is expressed herein on the accuracy, completeness or sufficiency of the Official Statement or other offering material relating to the Series 2017 Bonds.

Respectfully submitted,

Respectfully submitted,

PROPOSED FORM OF OPINION OF SPECIAL TAX COUNSEL

Upon the delivery of the Series 2017 Bonds, Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Underwriters, proposes to render its tax opinion with respect to the Series 2017 Bonds in substantially the following form:

[Closing Date]

East Bay Municipal Utility District Oakland, California

East Bay Municipal Utility District Water System Revenue Bonds, Series 2017A (Green Bonds) and Water System Revenue/Refunding Bonds, Series 2017B (Special Tax Opinion)

Ladies and Gentlemen:

We have acted as special tax counsel in connection with the issuance by the East Bay Municipal Utility District (the "District") of \$_____ aggregate principal amount of its Water System Revenue Bonds, Series 2017A (Green Bonds) and \$____ aggregate principal amount of its Water System Revenue/Refunding Bonds, Series 2017B (collectively, the Bonds). The Bonds are being issued pursuant to a Water System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as supplemented by supplemental indentures, including a Twenty-Eighth Supplemental Indenture, dated as of June 1, 2017 (collectively, the "Indenture"), between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Indenture.

In such connection, we have reviewed the Indenture, the Tax Certificate of the District, dated the date hereof and relating to the Bonds (the "Tax Certificate"), opinions of counsel to the Trustee and the District, certificates of the District, the Trustee and others, and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein. In particular, we have relied on the opinion of Norton Rose Fulbright US LLP and Curls Bartling P.C., co-bond counsel to the District (the "Bond Counsel Opinion"), regarding, among other matters, the validity of the Bonds. In rendering the opinions expressed herein, we expressly have relied on the Bond Counsel Opinion that, among other matters, the Bonds are valid and binding obligations of the District. We call attention to the fact that the interest on the Bonds may not be excluded from gross income for federal income tax purposes or exempt from State of California personal income taxes if the Bonds are not valid, binding and enforceable in accordance with their terms.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after the date hereof. We have not undertaken to determine, or to inform any person, whether any such actions are taken or omitted or events do occur or any other matters come to our attention after the date hereof. Accordingly, this opinion is not intended to, and may not, be relied upon in connection with any such actions, events or matters. Our engagement with respect to the Bonds has concluded with their issuance, and we disclaim any obligation to update this letter. We have assumed the genuineness of all documents and signatures presented to us (whether as

originals or copies) and the due and legal execution thereof by, and validity against, all parties. We have assumed, without undertaking to verify, the accuracy of the factual matters represented, warranted or certified in the documents, and of the legal conclusions contained in the opinions, referred to in the second paragraph hereof. Furthermore, we have assumed compliance with all covenants and agreements contained in the Indenture and the Tax Certificate, including (without limitation) covenants and agreements compliance with which is necessary to assure that future actions, omissions or events will not cause the interest on the Bonds to be included in gross income for federal income tax purposes. We call attention to the fact that the rights and obligations under the Bonds, the Indenture and the Tax Certificate and their enforceability may be subject to bankruptcy, insolvency, receivership, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against municipal utility districts in the State of California. Our advice did not include financial advice or non-legal advice. Finally, we undertake no responsibility for the accuracy, completeness or fairness of the Official Statement or other offering material relating to the Bonds and express no opinion with respect thereto.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and is exempt from State of California personal income taxes. Interest on the Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although we observe that it is included in adjusted current earnings when calculating corporate alternative minimum taxable income. We express no opinion regarding other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of such interest on, the Bonds.

Faithfully yours,

ORRICK, HERRINGTON & SUTCLIFFE LLP

APPENDIX E

DTC AND THE BOOK-ENTRY ONLY SYSTEM

The information in this Appendix E concerning The Depository Trust Company, New York, New York ("DTC"), and DTC's book-entry system has been obtained from DTC and the District and the Trustee take no responsibility for the completeness or accuracy thereof. The District and the Trustee cannot and do not give any assurances that DTC, Direct Participants (as defined below) or Indirect Participants (as defined below) will distribute to the Beneficial Owners (a) payments of interest, principal or premium, if any, with respect to the Series 2017 Bonds, (b) certificates representing ownership interest in or other confirmation of ownership interest in the Series 2017 Bonds, or (c) redemption or other notices sent to DTC or Cede & Co., its nominee, as the registered owner of the Series 2017 Bonds, or that they will do so on a timely basis, or that DTC, Direct Participants or Indirect Participants will act in the manner described in this Appendix E. The District and the Trustee are not responsible or liable for the failure of DTC or any DTC Direct or Indirect Participant to make any payment or give any notice to a Beneficial Owner with respect to the Series 2017 Bonds or an error or delay relating thereto. The current "Rules" applicable to DTC are on file with the Securities and Exchange Commission and the current "Procedures" of DTC to be followed in dealing with DTC's Direct and Indirect Participants are on file with DTC.

DTC will act as securities depository for the Series 2017 Bonds. The Series 2017 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of each Series of the Series 2017 Bonds of the same terms and bearing interest at the same coupon rate, in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to Direct and Indirect Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com. The information on such website is not incorporated herein by reference.

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Purchases of Series 2017 Bonds under the DTC book-entry system must be made by or through Direct Participants, which will receive a credit for the Series 2017 Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2017 Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2017 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2017 Bonds, except in the event that use of the book-entry system for the Series 2017 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2017 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Series 2017 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2017 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2017 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Series 2017 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2017 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Series 2017 Bond documents. For example, Beneficial Owners of the Series 2017 Bonds may wish to ascertain that the nominee holding the Series 2017 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series 2017 Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2017 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the District as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2017 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal of, premium, if any, and interest on the Series 2017 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants" accounts upon DTC's receipt of funds and corresponding detail information from the District or the Trustee, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Direct or Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee, or the District, subject to any statutory or regulatory

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requirements as may be in effect from time to time. Payment of principal of, premium, if any, and interest on the Series 2017 Bonds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the District or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Series 2017 Bonds at any time by giving notice to the Trustee and the District. Under certain circumstances, in the event that a successor depository is not obtained, Series 2017 Bond certificates are required to be printed and delivered.

The District may decide to discontinue use of the system of book-entry transfers for the Series 2017 Bonds through DTC (or a successor securities depository). In that event, Series 2017 Bond certificates will be printed and delivered as provided in the Indenture. In addition, the following provisions would apply: the principal or redemption price of the Series 2017 Bonds will be payable upon presentation thereof, at the principal corporate trust office of the Trustee, in San Francisco, California; interest on the Series 2017 Bonds will be payable by check mailed on each interest payment date to the registered owners thereof as shown on the registration books of the Trustee as of the close of business on the 15th day of the calendar month immediately preceding the applicable interest payment date (the "record date"), except that in the case of an owner of \$1,000,000 or more in aggregate principal amount of Series 2017 Bonds, upon written request of such owner to the Trustee received at least 10 days prior to the record date for the payment of interest, specifying the account or accounts to which such payment shall be made (which request shall remain in effect until revoked by such owner in a subsequent writing delivered to the Trustee), such interest shall be paid in immediately available funds by wire transfer to such account or accounts on the following interest payment date; and the Series 2017 Bonds will be transferable and exchangeable on the terms and conditions provided in the Indenture.

The information in this Appendix E concerning DTC and DTC's book-entry system has been obtained from sources the District believes to be reliable, but the District takes no responsibility for the accuracy thereof.

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APPENDIX F

FORM OF CONTINUING DISCLOSURE AGREEMENT

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APPENDIX G

ANTICIPATED SERIES 2017A GREEN BOND PROJECTS

The District anticipates funding or reimbursing CIP expenditures for the following Water System projects using proceeds of the Series 2017A Bonds:

[List of Projects to Come]

[All of] the proceeds of the Series 2017A Bonds are to be allocated to costs of the projects identified above. The District does not anticipate providing any future information respecting the particular "green" projects for which the expenditure of proceeds of the Series 2017A Bonds will be made. See also "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF FUNDS" in the front part of this Official Statement and "THE WATER SYSTEM – Capital Improvement Program" in APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)" to this Official Statement.

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APPENDIX A

THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM)



The East Bay Municipal Utility District occupies 332 square miles of the San Francisco – Oakland metropolitan region. The Water System serves approximately 1.4 million people, or approximately 51% of the population of Alameda and Contra Costa Counties.

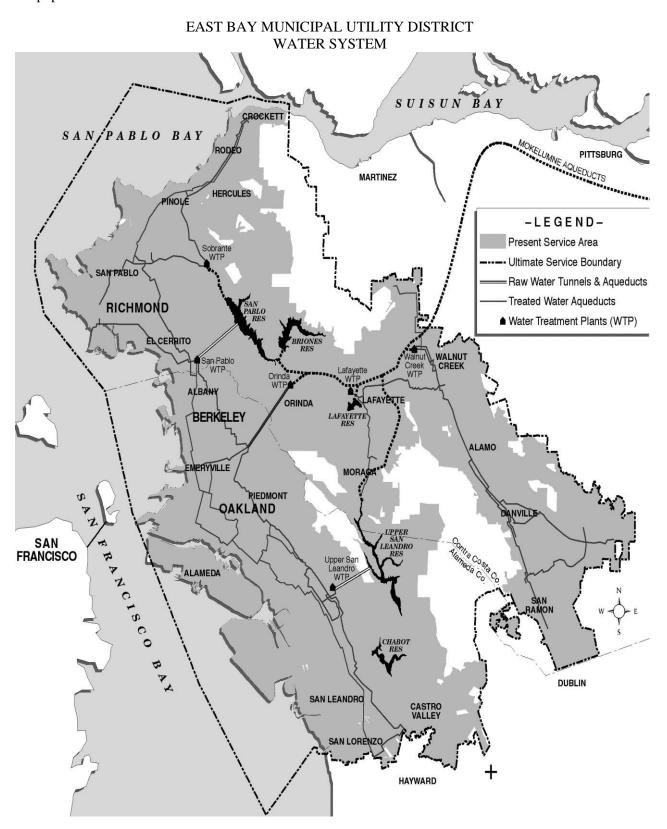


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THE DISTRICT

Organization

In May 1923, voters in cities along the eastern shore of the San Francisco Bay located in portions of Alameda and Contra Costa Counties (known throughout the San Francisco Bay Area as the "East Bay") elected to create the East Bay Municipal Utility District (the "District") under the provisions of the Municipal Utility District Act. Under the Municipal Utility District Act, municipal utility districts are empowered to acquire, construct, own, operate or control works for supplying the district and public agencies in the territory of the district with light, water, power, heat, transportation, telephone service or other means of communications, means for the collection, treatment or disposition of garbage, sewage or refuse matter, and public recreation facilities appurtenant to its reservoirs and may do all things necessary and convenient to the full exercise of powers granted in the Municipal Utility District Act. The District presently exercises only those functions relating to water supply, power generation and recreational facilities through its Water System, and sewerage and wastewater interception, treatment and disposal and power generation through its Wastewater System, within an area known as Special District No. 1. Special District No. 1 covers only a portion of the service area of the District. The District presently does not intend to exercise other functions. Such other functions and the related facilities, if exercised, would not constitute part of the Water System or the Wastewater System.

District Board

The District, a public agency, is governed by an elected seven-member Board of Directors (the "Board" or "District Board") which determines such matters as rates and charges for services, approval of contracts and District policy. Voters elect directors by ward to four-year terms. There are seven wards which together cover the entire service area of the District. Each year, the Board elects from among its members persons to serve as Board officers (President and Vice President). The current members of the District Board have an average service tenure of approximately 17 years. Each of the multi-term Board members has served one or more years as an officer of the Board and has chaired one or more of the Board's standing committees that review financial, long-range planning, and legislative matters. The following persons currently serve on the Board:

Lesa R. McIntosh has served on the Board since 1999 and represents Ward 1, which includes the Contra Costa County cities of Crockett, Hercules, Rodeo and San Pablo; portions of Richmond and Pinole, and the communities of North Richmond and Selby. Ms. McIntosh is currently President of the Board. She also currently serves as the chair of the District's Legislative/Human Resources Committee. Ms. McIntosh also represents the District on the Special Districts Association of Contra Costa County and is also serving as an elected member of the ACWA Region 5 board. She served on the 2014 ACWA Federal Affairs Committee. Ms. McIntosh is a member of the Contra Costa County Bar Association, the Charles Houston Bar Association, NAACP – Richmond Chapter, Black Women Lawyers of Northern California, and Black Women Organized for Political Action. Ms. McIntosh is an attorney currently specializing in business, estate planning and probate. She has a Bachelor of Science degree in Political Science from the University of California, Berkeley and a law degree from John F. Kennedy University. Ms. McIntosh's current term expires on December 31, 2020.

William B. Patterson has served on the Board since 1997 and represents Ward 6, which includes portions of Oakland, including East Oakland and the area south of Park Boulevard/5th Avenue to the San Leandro city boundary, in Alameda County. Mr. Patterson is currently Vice President of the Board. Mr. Patterson represents the District on the boards for the Upper Mokelumne River Watershed Authority and the Freeport Regional Water Authority. Mr. Patterson has served as a member of the Oakland Workforce Investment Board. He retired several years ago, after working

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for many years as the City of Oakland Manager of Parks and Recreation. Mr. Patterson has Bachelor's and Master's degrees from San Francisco State University and a Social Services Certificate from the University of California, Berkeley. His current term expires on December 31, 2020.

John A. Coleman has served on the Board since 1990 and represents Ward 2, which includes the Contra Costa County cities of Alamo, Lafayette and Walnut Creek, the Town of Danville, the communities of Blackhawk and Diablo, and portions of Pleasant Hill and San Ramon. Mr. Coleman represents the District on the governing boards of the Upper Mokelumne River Watershed Authority (for which he currently serves as Chair), the Freeport Regional Water Authority and the DSRSD/EBMUD Recycled Water Authority (DERWA). Mr. Coleman is immediate past president of the Association of California Water Agencies (ACWA) board of directors, and serves as a board member of Contra Costa Leadership Council and as a member of the San Francisco Bay Restoration Authority Advisory Committee. He is also a past president of the California Association of Sanitation Agencies, a past Chair of ACWA's Federal Affairs Committee and a past Chair of ACWA's California Finance Water Task Force. Mr. Coleman is employed as the Chief Executive Officer of the Bay Planning Coalition, which represents maritime and shoreline interests and issues in northern California. He has a Bachelor of Science degree in Natural Resources from the University of California, Berkeley and a certificate in management from the University of Pacific School of Business and Public Administration. His current term expires on December 31, 2018.

Andy Katz has served on the Board since 2006 and represents Ward 4, which includes Albany, Berkeley, Emeryville and North Oakland in Alameda County, and El Cerrito and Kensington in Contra Costa County. Mr. Katz is employed as an attorney and public health advocate for Breathe California, and is a former Chair of Sierra Club California. Prior to his election to the District Board, he served for five years as a member of the City of Berkeley Zoning Adjustments Board. Mr. Katz has a Bachelor of Arts degree and a Master of City Planning degree from the University of California, Berkeley, and a law degree from Santa Clara University. His current term expires on December 31, 2018.

Doug A. Linney has served on the Board since 2000 and represents Ward 5, which includes the Alameda County cities of Alameda and San Lorenzo, the West Oakland and Oakland Airport Area, and a portion of San Leandro. He is active in a number of community and environmental organizations, including the California League of Conservation Voters and the California Interfaith Power and Light. Mr. Linney is employed as President of The Next Generation, a public relations firm providing services that emphasize achieving environmental protection. Mr. Linney has a Bachelor of Science degree in Environmental Science and Public Policy from the University of California, Davis. His current term expires on December 31, 2020.

Frank G. Mellon has served on the Board since 1994 and represents Ward 7, which includes the areas of Castro Valley, communities of Cherryland and Fairview; portions of San Leandro and Hayward in Alameda County, and a portion of San Ramon in Contra Costa County. Mr. Mellon also currently serves on the District's Retirement Board. Mr. Mellon represents the District on the governing board of the DSRSD/EBMUD Recycled Water Authority (DERWA) and on the Special District Association of Alameda County. Mr. Mellon is currently a consultant specializing in human resources and labor relations and has taught labor law in the California State University East Bay Human Resources Certificate Program. Mr. Mellon has a Bachelor of Arts degree in Management from the University of Hawaii and a Master's Degree in Business Administration from St. Mary's College in Moraga. His current term expires on December 31, 2018.

Marguerite Young was elected to the Board in 2014 and represents Ward 3, which includes the City of Piedmont and a portion of the City of Oakland in Alameda County, and the Contra Costa County cities of Orinda and El Sobrante, the Town of Moraga, and portions of Pinole and Richmond. She also currently serves on the District's Retirement Board. Ms. Young is currently the Corporate Responsibility Director and Senior Policy Analyst for the Service Employees International Union (SEIU) Capital Stewardship Program. Ms. Young was co-chair of the CALFED Bay-Delta Program's Water Quality Committee, which instigated regional cooperation among water agencies to address drinking water quality issues related to Bay-Delta water supplies. As California Director of Clean Water Action, her work also included service as an appointed member of California's Source Water Assessment Advisory Committee, the United States Environmental Protection Agency ("USEPA") Federal Advisory Committee on the Multiple Disinfection By-product Rule, and California's Recycled Water Task Force. She cofounded the League of Conservation Voters-East Bay and is a former board member of Friends of the River. Ms. Young has a Bachelor of Science degree in Natural Resource Economics from the University of California, Berkeley. Her current term expires on December 31, 2018.

District Management

Alexander R. Coate joined the District in 1993 and was appointed General Manager in 2011. Mr. Coate has 30 years of experience with public agencies, engineering consulting firms, research and law. He has worked for the District for more than 23 years. Prior to his appointment as General Manager, he was Director of Water and Natural Resources with responsibility for water supply planning, water rights, and watershed management including recreation and fisheries. Mr. Coate is a member of the American Water Works Association and the Association of California Water Agencies. He currently serves on the boards of the California Urban Water Agencies, the California WateReuse Association, the Western Urban Water Coalition and the Water Research Foundation. Mr. Coate has a Bachelor's degree in Neurobiology and a Master's degree in Civil Engineering, both from the University of California, Berkeley.

Craig S. Spencer joined the District in 1995 and was appointed General Counsel effective January 28, 2015. Previous to his current appointment, Mr. Spencer was Assistant General Counsel at the District and previously served as Chief Trial Attorney. Before joining the District, he was a partner at the law firm of Hassard Bonnington in San Francisco. Mr. Spencer has over 22 years of experience in public law. He has a Bachelor's degree in Economics from the University of California, Santa Barbara and a law degree from Southern Methodist University.

Sophia D. Skoda joined the District in 2006 and was appointed Director of Finance effective November 30, 2015. Prior to her appointment as Director of Finance, Ms. Skoda served as Treasury Manager. In addition, Ms. Skoda has previously served as a Senior Civil Engineer for the District, in which position she was responsible for managing all aspects of the District's resource recovery program. Before joining the District, Ms. Skoda spent nine years with consulting firms providing a range of financial consulting services to water and wastewater utility clients throughout California. She has a Bachelor of Science degree in Civil Engineering from Stanford University and a Master's degree in Civil Engineering from the University of California, Berkeley.

Xavier J. Irias joined the District in 1986 and was appointed Director of Engineering and Construction in 2006. Prior to that appointment, he held progressively more responsible positions managing engineering design and engineering services, and he has over 30 years of experience in the engineering field. Mr. Irias has a Bachelor of Science degree in Civil Engineering from the University of California, Berkeley.

Richard G. Sykes joined the District in 1989 and was appointed Director of Water and Natural Resources in 2011. Mr. Sykes has held progressively more responsible positions over that time; he has broad knowledge of the District's operations and is very experienced in water quality and regulatory issues. He has a Bachelor's degree in Conservation of Natural Resources and English and a Master's degree in Environmental Engineering from the University of California, Berkeley.

Michael J. Wallis joined the District in 1985 and was appointed Director of Operations and Maintenance in 1996. Prior to his current appointment Mr. Wallis held progressively more responsible positions in the District's Wastewater Department, and served as Director of Wastewater for several years. Mr. Wallis has over 37 years of water and wastewater related experience. He serves on the Board of Directors for the Association of Metropolitan Water Agencies and currently holds the position of Secretary. He has a Bachelor of Science degree and a Master's degree in Civil Engineering from North Carolina State University.

Eileen M. White joined the District in 1987 and was appointed Director of Wastewater in 2017. Prior to that appointment, she held progressively more responsible positions managing the operations of the water system and managing engineering design and construction projects in the Wastewater and Water Departments. Prior to joining the District, Ms. White worked as a design engineer for Pacific Gas and Electric Company. She has over 30 years of experience in the engineering field. Ms. White has a Bachelor of Science degree in Civil Engineering from the University of California, Berkeley and is a licensed Civil Engineer in California.

Rischa S. Cole joined the District in 1997 and was appointed Secretary of the District in March 2017. Ms. Cole has served in a variety of lead administrative roles at the District during her career including Executive Assistant II in the Office of the Secretary and most recently as Assistant to the General Manager. Ms. Cole received her Bachelor of Science degree in Business Administration from California State University, East Bay. She has a Certificate of Completion in Advanced Coursework for the California Special Districts Association's Special District Board Secretary/Clerk Program and is an Associate Member of the International Institute of Municipal Clerks.

D. Scott Klein joined the District in 1992 and was appointed Controller in 2003. He has over 33 years of experience in the accounting field. Prior to his appointment, he held progressively more responsible positions in the District's Accounting division. He also chairs the State Controller's Office of California 7-member Advisory Committee on Financial Reporting. Mr. Klein has a Bachelor of Science degree in Industrial Relations and a Bachelor of Arts degree in Accounting from San Francisco State University, a Master's degree in Finance from California State University Hayward, and holds an active accreditation as a Certified Management Accountant.

Dari Barzel joined the District in 2013 and was appointed Treasury Manager effective March 7, 2016. Prior to her appointment as Treasury Manager, Ms. Barzel served as Principal Management Analyst (Debt Administrator) for the District. She has over 27 years of experience in public finance, including over 13 years as a rating analyst in the Public Finance Department of Moody's Investors Service. Ms. Barzel has a Bachelor of Arts degree in English from Barnard College and a Master's degree in Business Administration (Finance concentration) from Columbia University. She is a past President of the California Society of Municipal Analysts and a past member of the Board of the National Federation of Municipal Analysts.

Travis George joined the District in 2016 as the District's Debt Administrator. Prior to this role, Mr. George was a rating analyst in the Public Finance Department of Moody's Investors Service. While at Moody's, he covered local government issuers in all of the western states, with a particular focus on public utilities. Prior to this, Mr. George held positions in the finance

departments of Con Edison Company of New York and Bonneville Power Administration. Mr. George has a Bachelor of Arts degree in Economics from Portland State University and Master's degree in Public Administration and Policy from New York University.

Employees and Employee Relations

As of January 1, 2017, the District had 1,601 (full-time equivalent) employees in the Water System and 249 (full-time equivalent) employees in the Wastewater System.

The District has four unions representing approximately 1,705 workers out of a total full-time equivalent workforce of 1,850 employees: Local 2019 of the American Federation of State, County and Municipal Employees ("AFSCME") represents white collar workers including professionals; Local 444 of AFSCME represents blue collar workers; Local 21, International Federation of Professional and Technical Engineers represents supervisory employees; and Local 39, International Union of Operating Engineers represents water treatment/distribution workers.

Locals 2019, 444, 21 and 39 are each operating under a Memorandum of Understanding (collectively, "MOUs"), approved by the District Board in 2013. Each of the current MOUs expired on April 16, 2017. The District and the labor unions are continuing to negotiate successor MOUs. Until successor contracts are executed, the terms of the expired MOUs will continue to govern. {monitor for update} The MOUs are comprehensive in scope and provide for binding arbitration for the resolution of grievances. The District has not had a strike or work stoppage since 1985.

For a discussion of the District Employees' Retirement System, see "WATER SYSTEM FINANCES – Employees' Retirement System."

Service Area

Originally formed to include nine cities covering 92.6 square miles, the District has grown by more than 450 separate annexations to a present area of 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 on the north to and including San Lorenzo on 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 51% of the combined population of Alameda County and Contra Costa County. Approximately two-thirds of the population within the District's service area resides in the cities of Alameda, Berkeley, Oakland, San Leandro, Richmond and Walnut Creek.

The land area between the present service area boundary and the ultimate service area boundary, approximately 69 square miles, includes some areas of potential development. However, a large part of this land area is parklands and other undeveloped lands that are not anticipated to be developed in the foreseeable future. Another 81 square miles within the ultimate service area boundary outside the District's present service area boundary is under the waters of the San Francisco and San Pablo Bays. The ultimate service area boundary is limited on the west and north by the shorelines of the San Francisco and San Pablo Bays. The ultimate service area boundary is limited on the south and northeast by adjoining water agencies which have sources of supply independent of the District. There is limited potential for new development at the southern end of the San Ramon Valley, now in the early stages of land use planning and environmental documentation, which is located just outside the ultimate service area boundary. The District's service area population, currently 1.4 million, is projected to grow by 2035 to a population of 1.65 million, with much of that growth expected to come from infill development within the urbanized parts of the service area.

The Municipal Utility District Act was amended in 1941 to enable formation of special districts for wastewater service provision. In 1944, voters elected to form the District's Special District No. 1 to treat wastewater released into the San Francisco Bay. The District's Wastewater System presently serves approximately 685,000 people in an 88-square-mile area of the two counties along the east shore of the San Francisco Bay, extending from Richmond on the north, southward to Oakland's border with San Leandro. Domestic, commercial and industrial wastewater is treated for the six participating cities of Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont, and for the Stege Sanitary District (which includes El Cerrito, Kensington and part of Richmond). Each of these participating agencies operates a sewer collection system that discharges into the District's intercepting sewers. In addition to treating waste received from the participating agencies' sewer collection systems, the District accepts high-organic waste streams delivered in trucks. The wastes include domestic waste from septic tanks, fat, oil and grease from restaurants, and other food and drink wastes. The District's trucked-waste program continues to expand in the scope of wastes accepted. The District anaerobically digests the high-organic wastes with municipal solids to create renewable energy. This energy is used to power the wastewater treatment facility, with excess energy sold to the Port of Oakland under a power purchase agreement.

Taxation of the District

All property of the District within the District's boundaries generally is exempt from property taxation. District-owned land outside of the District's boundaries is taxable, but improvements constructed on that land by the District are not taxable. As a public agency, the District is exempt from the payment of State of California (the "State") income taxes and federal income taxes.

THE WATER SYSTEM

General

The District supplies water for major parts of Alameda and Contra Costa Counties. Approximately 1.4 million people are served by the District's Water System in an approximately 332 square-mile area extending from Crockett on the north, southward to and including San Lorenzo, encompassing the major cities of Oakland and Berkeley, and eastward from San Francisco Bay to Walnut Creek.

The District's Water System currently serves the incorporated communities of Alameda, Albany, Berkeley, Danville, El Cerrito, Emeryville, part of Hayward, Hercules, Lafayette, Moraga, Oakland, Orinda, Piedmont, Pinole, part of Pleasant Hill, Richmond, San Leandro, San Pablo, San Ramon, and part of Walnut Creek, and the unincorporated communities of Alamo, Ashland, Blackhawk, Castro Valley, Cherryland, Crockett, Diablo, El Sobrante, Fairview, Kensington, North Richmond, Olium, Rodeo, San Lorenzo and Selby.

Table 1 shows the population trends for the six largest cities in the District, Alameda and Contra Costa Counties and the State for the five years 2012 to 2016.

Table 1
SIX LARGEST DISTRICT CITIES
ALAMEDA, CONTRA COSTA COUNTIES AND CALIFORNIA
Population Trends⁽¹⁾

	2012	2013	2014	2015	2016
Oakland	400,281	408,822	413,626	419,539	422,856
Berkeley	115,199	116,074	117,399	118,923	119,915
Richmond	105,842	107,563	108,447	109,568	110,378
San Leandro	85,889	85,847	86,453	87,209	87,700
Alameda	75,210	76,074	76,785	77,657	79,277
Walnut Creek	65,594	67,225	67,954	68,652	70,018
Total Six Cities	848,015	861,605	870,664	881,548	890,144
Alameda County	1,543,027	1,566,339	1,587,637	1,610,765	1,627,865
Contra Costa County	1,069,977	1,083,340	1,097,172	1,111,143	1,123,429
California	37,881,357	38,239,207	38,567,459	38,907,642	39,255,883

⁽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, 2011-2016, with 2010 Census Benchmark. Sacramento, California, May 2016.

Water Supply

The amount of water available to the District from its water supply sources for delivery to customers of the Water System can be constrained by hydrology, physical facilities, and operational considerations, including required releases for environmental protection. See "– Water Rights and Related Proceedings." While the District has ample stable resources to meet demands in most years, stored water in District reservoirs is a critical component of the District's annual water supply and year-to-year operations. See "– Water Supply Operations." Storage capacity provides the Water System with year-to-year water supply carry-over capability and a mechanism to assist the District in assuring consistent water supply reliability within its service area notwithstanding fluctuations in available supply.

Hydrology in California can be highly variable from year to year. The recent drought of 2012 through 2015 represents one of the driest sequences in the hydrologic record in California. Following such period, in Water Year 2016, weather conditions moderated significantly in the northern part of the State, with near normal runoff and above average precipitation in the Mokelumne watershed, the primary source of the District's water supply. (A Water Year begins on October 1 and ends on the following September 30). Water Year 2017 is on pace to be the wettest year on record in the Mokelumne watershed. As of March 1, 2017, stored water in the District's reservoirs is at or near capacity. See "– Current Water Conditions."

Through its multi-year strategic planning efforts, the District has developed long-term and dry-year water supplies that are designed to maximize the District's ability to reliably deliver water supply and responsive service to its customers and the community, while also achieving its environmental stewardship goals and obligations. See "– Water Supply Management Plan" and "– Drought Response Actions."

During wet and normal rainfall years, the District's water supply is obtained from three sources: the 627-square mile Mokelumne River watershed in the Sierra Nevada mountains, runoff from streams within the District, and recycled water produced at various locations in the service area. During drought times, the District has access to substantial additional supplies from the Sacramento River via the Freeport Regional Water Project and has secured, and may also seek to secure, additional supplemental water supply under contractual arrangements such as water transfers. The District can also utilize water stored within a local aquifer. Each of these supply sources is more fully described below.

Mokelumne River Watershed. The District holds permits and licenses issued by the State Water Resources Control Board (the "SWRCB") which enable the District to utilize waters of the Mokelumne River as the primary source of the water supply for the District's service area. The average annual runoff of the Mokelumne River is about 745,000 acre-feet. (An acre-foot is the amount of water that will cover one acre to a depth of one foot and equals approximately 326,000 gallons, which represents the needs of two average families in and around the home for one year.) As described below under "– Water Rights and Related Proceedings," the District's water rights permit the total diversion of approximately 364,000 acre-feet per year from the Mokelumne River, subject to certain prior water rights. Annual water production in the District to serve its customers has not exceeded 252,000 acre-feet. 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.

Annual water production in the District since Fiscal Year 2007 is shown in Table 2.

Table 2
WATER PRODUCTION BY FISCAL YEAR⁽¹⁾

Annual Production (Acre-Feet)	Annual Production (Thousands of Ccf)	Annual Production (Million Gallons)	Average Production Per Day (Million Gallons per Day)
236,111	102,850	76,932	211
230,363	100,346	75,059	205
203,423	88,611	66,281	182
195,158	85,011	63,588	174
194,642	84,786	63,420	174
200,220	87,216	65,242	178
205,889	89,685	67,089	184
209,467	91,244	68,255	184
174,411	75,974	56,832	156
162,562	70,812	52,971	145
	Production (Acre-Feet) 236,111 230,363 203,423 195,158 194,642 200,220 205,889 209,467 174,411	Production (Acre-Feet) Production (Thousands of Ccf) 236,111 102,850 230,363 100,346 203,423 88,611 195,158 85,011 194,642 84,786 200,220 87,216 205,889 89,685 209,467 91,244 174,411 75,974	Production (Acre-Feet) Production (Thousands of Ccf) Production (Million Gallons) 236,111 102,850 76,932 230,363 100,346 75,059 203,423 88,611 66,281 195,158 85,011 63,588 194,642 84,786 63,420 200,220 87,216 65,242 205,889 89,685 67,089 209,467 91,244 68,255 174,411 75,974 56,832

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.

As reflected in the table above, water production in the last eight fiscal years has been approximately 10-29% lower than Fiscal Year 2008 levels due to factors that include increased water conservation, reduced consumption during drought and post-drought periods and the effects of State and local economic conditions.

See also "- Water Supply Operations" below.

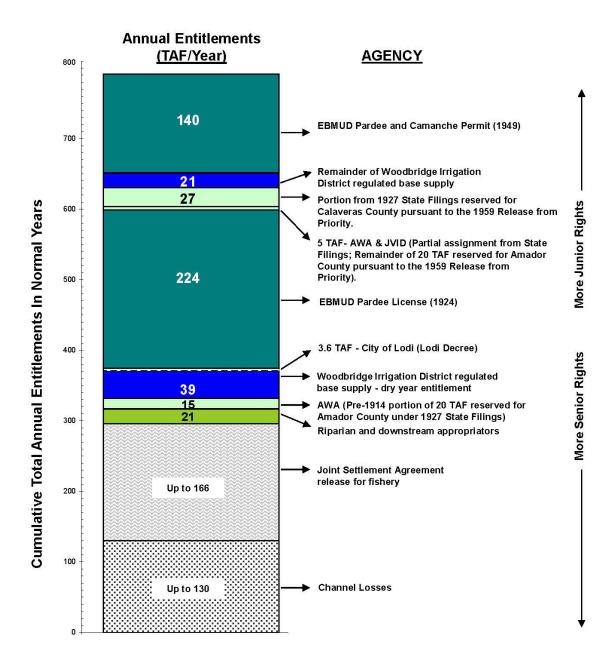
Runoff is water that enters the District reservoir system naturally from precipitation. Each of the District's reservoirs receives runoff, and the runoff is broadly categorized as Mokelumne River runoff or terminal reservoir runoff. In an average year, the Mokelumne River runoff represents approximately 95% of the total runoff. Runoff provides the water storage that is used for water production. During the tenyear period from 2007 to 2016, the annual Mokelumne River runoff has ranged from a low of approximately 222,000 acre-feet in Water Year 2015 to a high of 1.4 million acre-feet in Water Year 2011. In 1977, the lowest year of record since records have been kept, the annual runoff from the Mokelumne River was 129,000 acre-feet. Faced with fluctuating runoff volumes and periodic drought conditions, the District has developed a comprehensive approach to ensuring a reliable water supply. The District's Water Supply Management Plan utilizes demand management and multiple supply options to meet long-term water needs. The plan is discussed under "– Water Supply Management Plan" below.

The Mokelumne River watershed also serves municipal, industrial and agricultural water needs in three Sierra Nevada foothill counties (Amador, Calaveras and San Joaquin), in addition to the municipal and industrial needs of the District's service area. The agencies and individual diverters on the Mokelumne River each operate and divert water under separate entitlements, permits and licenses, along with a number of contracts and agreements among various agencies and under certain court decrees.

In the Mokelumne River watershed there are entities with water rights that are junior and senior to those of the District as illustrated on the graphic below. The most senior water rights are those of riparian landowners and senior appropriators who diverted water prior to 1914, including Amador County and Woodbridge Irrigation District, or rights issued by court decree as with the City of Lodi. Amador Water Agency and Jackson Valley Irrigation District divert water appropriated by Amador County up to 20,000 acre-feet per year; Woodbridge Irrigation District diverts 60,000 acre-feet in normal and wet years and 39,000 acre-feet in dry years in San Joaquin County. The City of Lodi has a prior right to 3,600 acrefeet if certain conditions under the Lodi Decree are met. Calaveras County Water District and Calaveras Public Utility District may divert up to a total of 27,000 acre-feet per year in Calaveras County, Pacific Gas and Electric Company ("PG&E") also has water rights which it uses to operate its hydropower facilities. Because those rights are non-consumptive, they are not depicted in the graphic on the next page. For a discussion of potential effects of projected increased use of senior water rights holders on District water supplies and the District's efforts to increase future supply through multiple water supply projects, see "- Water Supply Management Plan." In addition, the District's water rights from the State for the Camanche Reservoir, including the District's obligations under a 1998 Joint Settlement Agreement incorporated therein (the "1998 Joint Settlement Agreement"), among the District, the U.S. Fish and Wildlife Service and the California Department of Fish and Game (now the California Department of Fish and Wildlife), require that minimum releases be made from Camanche Reservoir for the protection of downstream fisheries before the District can exercise its water rights. Pursuant to the 1998 Joint Settlement Agreement, the District's required minimum releases from Camanche Dam are adjusted to reflect the time of year and type of Water Year (e.g., Normal/Above Normal, Below Normal, Dry and Critically Dry). In critically dry and dry years, a minimum average of from 22,500 to 65,000 acre-feet per year must be released downstream by the District to satisfy its obligations for the protection of fisheries resources. In wet years, a minimum of 166,000 acre-feet must be released. See also "- Water Rights and Related Proceedings."

The following graphic summarizes the priorities of Mokelumne River water rights and other flow commitments with respect to the Mokelumne River water supply in a normal Water Year. "TAF" as used in the graphic refers to thousand acre-feet.

Hierarchy Of Mokelumne River Water Rights And Other Flow Commitments



Note: Total does not include storage rights or power rights which are non-consumptive (e.g. PG&E).

Local Runoff. In normal Water Years, District reservoirs in the East Bay receive an additional 30,000 acre-feet of water from local watershed runoff. Much of the local runoff is stored in the East Bay reservoirs for system use. In dry years, evaporation and other reservoir losses can total more than the runoff. Thus, there is no firm yield from local watersheds.

Supplemental Supply-United States Bureau of Reclamation Central Valley Project Contract. In December 1970, the District entered into its original Central Valley Project Contract ("CVP Contract") with the United States Bureau of Reclamation (the "Bureau"), entitling the District to take up to a specified quantity of American River water from the Folsom-South Canal Unit of the Bureau's Central Valley Project ("CVP") annually. The CVP Contract was superseded on July 20, 2001 by an Amendatory Contract, which, in turn, was superseded on April 10, 2006 by a Long-Term Renewal Contract ("Long-Term Renewal CVP Contract"). The Long-Term Renewal CVP Contract has a term of 40 years, with a right of renewal for an additional 40 years available to the District. Historically, the District did not have permanent infrastructure in place to receive CVP water. The Freeport Regional Water Project (hereinafter, the "FRWP"), which was placed in commercial operation on November 15, 2011, provides the permanent infrastructure to allow the District to receive water deliveries pursuant to the Long-Term Renewal CVP Contract. Water can also be delivered through the FRWP from other supplies such as water transfers (any such supplemental supply water delivered from sources outside the District's normal watershed being hereinafter referred to as "Supplemental Supply"). When the FRWP is not being used by the District, the facilities can also be made available to other water providers to "wheel" water through the FRWP/FSCC system to interties with neighboring agencies. See "- Water Facilities - Freeport Regional Water Project" for a description of the FRWP.

The Long-Term Renewal CVP Contract provides the District with a Supplemental Supply source which helps meet projected drought year needs. Under the Long-Term Renewal CVP Contract, the District is entitled to receive deliveries of up to 133,000 acre-feet per year (119 million gallons per day ("MGD")) of CVP water in a single dry year, and no more than 165,000 acre-feet over the course of any three consecutive dry-years. Similar to other CVP contractors, the maximum quantity of water made available to the District in any dry year pursuant to this contractual entitlement is subject to shortages in CVP supply and potential reductions in allocations by the Bureau as required to meet the environmental requirements of the Central Valley Project Improvement Act. See "–Water Rights and Related Proceedings – Central Valley Project Improvement Act."

The District was entitled to receive an allocation of CVP water under its Long-Term Renewal CVP Contract in 2014 and 2015 to provide a source of Supplemental Supply to meet the water demands of its service area since the District's projected total system storage at the end of each of these Water Years was less than 500,000 acre-feet as a result of ongoing drought conditions. Due to the severity of the ongoing drought and reduced levels of storage in federal reservoirs, the Bureau reduced allocations of CVP water in 2014 and 2015. Under 2014 allocations of CVP water by the Bureau, the District was entitled to receive up to 50% of its dry year entitlement (i.e., up to 66,500 acre-feet) at any time during the federal water year contract period of March 1, 2014 through February 28, 2015 under the Long-Term Renewal CVP Contract. In 2014, the District requested and received 18,641 acre-feet of CVP supplies through the FRWP. The District also purchased 5,000 acre-feet of transfer water from other sources (described below). Under 2015 allocations of CVP water by the Bureau, the District was entitled to receive up to 25% of its dry year entitlement (i.e., up to 33,250 acre-feet) under its Long-Term Renewal CVP Contract at any time during the federal water year contract period of March 1, 2015 through February 29, 2016. The District sought a public health and safety adjustment from the Bureau in an effort to increase its allocation but was denied. In 2015, the District received 33,250 acre-feet of CVP supplies through the FRWP and purchased an additional 25,000 acre-feet of transfer water from other sources. Even though California's drought continued in 2016, there was sufficient runoff in the Mokelumne River and local watersheds that the District's projected total system storage at the end of the Water Year was more than 500,000 acre-feet so the condition for utilization of CVP water under the District's Long-Term

Renewal CVP Contract was not triggered and such Supplemental Supply was not needed for the District to meet the water demands of its service area in 2016.

Supplemental Supply-Water Transfers and Other Arrangements. As contemplated by its Water Supply Management Plan, the District seeks to identify and secure other sources of Supplemental Supply that may be purchased in dry years through water transfers. Placer County Water Agency ("PCWA") and the District have been working on the development of a potential long-term transfer agreement under which the District would purchase 10,000 to 47,000 acre-feet of water released from PCWA reservoirs to the lower American River under certain conditions during dry years pursuant to PCWA's obligations under the Sacramento-area Water Forum Agreement to which it is a party. The water purchased would be diverted to the District at the FRWP intake on the Sacramento River. PCWA and the District executed a memorandum of understanding on August 15, 2013 to develop the terms of the potential long-term water transfer agreement and to guide short term (annual) water transfers in the interim period until the long term agreement is executed. The District utilized the memorandum of understanding with PCWA in 2014 and 2015 to provide an additional source of Supplemental Supply through one-year water purchase agreements. The District has developed a number of other transfer partners who either have senior water rights on the Sacramento River or have sufficient water supplies and water storage to provide dry year water to the District if needed. The District purchased transfer water in 2015 from two of these entities, Reclamation District 1004 and the Sycamore Mutual Water Agency.

As discussed herein, the FRWP (and certain integrated District-only facilities) is utilized by the District during dry years when the District's contractual right to CVP water is made available. The FRWP system also provides a means of transport to allow the District to take deliveries of other sources of Supplemental Supply from outside the District's normal watershed when secured by the District during dry years through negotiated contractual arrangements such as water transfers. Operation of the FRWP results in additional costs of water supply to the District as compared to water from the District's Mokelumne River supply. These costs include: (i) the purchase cost of the water, payable to the Bureau for CVP water or to another party in connection with any water transfer or other contractual arrangement for Supplemental Supply that may be secured by the District; (ii) the costs to convey the water from the FRWP intake to the District's Water System, which include operations costs and energy for pumping; and (iii) additional treatment costs as this supply is typically treated at the District's full conventional treatment plants which are more expensive to operate than the District's largest direct filtration plants. These incremental costs are generally anticipated to be funded though drought rate surcharges and/or use of the District's Rate Stabilization Fund reserves.

See also "WATER SYSTEM FINANCES – District Management's Discussion of Fiscal Year 2016 Operating Results" and "– Discussion of Projected Operating Results for Fiscal Year 2017" for information regarding the impact of the recent California drought on the District's water rates and revenues.

Bayside Groundwater Project. In December 2009, the District completed a local supplemental supply project, the Bayside Groundwater Project Phase 1. The Bayside Groundwater Project consists of facilities designed to store treated drinking water in a deep aquifer during wet years for future recovery, re-treatment and distribution to customers during times of drought. Implementation of the project is planned in two phases. The Bayside Groundwater Project Phase 1, completed in December 2009, provides a modest, locally available supplemental water supply that helps reduce the need for rationing in the event of a prolonged drought. Phase 1 is used to store an annual average of one MGD (1,120 acre-feet per year) of water within a deep aquifer that extends beneath the community of San Lorenzo. Storage operations take place when water can be made available (during wet years). The District stored (injected) water for an eight week period beginning on June 2, 2011 and ending at the end of July 2011. The estimated volume of water stored is in the range of 30-40 million gallons (92-123 acre-feet). Due to the drought, no additional water was stored from 2012 through 2016. Storage operations are scheduled to

resume in 2017. Primary Phase 1 facilities include an injection/extraction well (and pump), a treatment plant, a groundwater monitoring network and instruments used to measure minute changes (if any) in ground surface elevation (subsidence) during Phase 1 operations. The District intends to continue to operate Phase 1 facilities in either a storage mode or possibly an extraction mode (based on water supply available for storage and/or drought conditions coupled with the need for water). Information gathered from Phase 1 operations will be used in part to determine the feasibility of Phase 2 and inform its future determinations on how to proceed with Phase 2 (which could provide an additional 9 MGD of supply). Significant planning activities for Phase 2 are not expected to begin for approximately 10 years.

Water Recycling. The District has undertaken a Water Recycling Program to develop and implement projects that reduce demands on potable water supplies. Recycled water has been used for landscape irrigation, cooling, equipment washdown and construction purposes at the District's Main Wastewater Treatment Plant since the early 1970s, as well as at a number of golf courses in the District's service area, beginning in 1984. Since 1993, the District has implemented various other recycled water projects that are designed to produce in the aggregate 9.3 MGD of additional supply. The District's Water Recycling Program currently includes six operating recycled water projects.

The District's Nonpotable Water Policy was adopted by the District Board on April 9, 1996. The Nonpotable Water Policy requires customers of the District to use nonpotable water (recycled water and other nonpotable water sources) for nondomestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and not injurious to plant life, fish and wildlife. The District has undertaken or will undertake in the future several water recycling project expansions in accordance with the long-term water recycling goal of 20 MGD by the year 2040. See "– Water Supply Management Plan" below.

The District's largest recycled water project in terms of numbers of customers served is a joint project with the Dublin San Ramon Services District ("DSRSD"). The DSRSD/EBMUD Recycled Water Authority ("DERWA"), a joint exercise of powers agency formed by the District and DSRSD, was created to produce and deliver recycled water to the District and DSRSD for their distribution within portions of their existing and future service areas. This project began deliveries in 2006 and currently serves 49 irrigation customers in the District's service area in the San Ramon Valley. The District continues to expand recycled water service to customers in the San Ramon Valley. Ultimately, the recycled water system is expected to extend north to the community of Blackhawk.

The District and DSRSD have entered into an agreement for the sale of recycled water by DERWA to the District and DSRSD pursuant to which each of the District and DSRSD are responsible for paying their respective share of the costs incurred by DERWA in implementing the DERWA recycled water program (including among other things, administrative costs, construction costs, operation and maintenance costs and costs of debt service on any obligations issued or incurred by DERWA for the purposes of the recycled water program). Payments to be made by the District under such recycled water sales agreement for the purchase of recycled water are payable as a Water Operation and Maintenance Cost of the District regardless of whether any recycled water is made available to the District from such facilities. The District's aggregate annual payment obligation to DERWA in connection with the DERWA recycled water program is currently approximately \$1.2 million per year.

The largest single user of recycled water in the District's service area is the Chevron Oil Refinery in Richmond. The District's recycled water project serving the Chevron Oil Refinery comprises two distinct elements. The first project was the North Richmond Recycled Water Project, which provides approximately 4 MGD of recycled water to cooling towers at the refinery. Service from this project began in 1996. An additional project, the Richmond Advanced Recycled Expansion ("RARE") Water Project, became operational in 2011. The RARE Water Project consists of a high-purity recycled water treatment plant at the refinery, an influent pump station, flow equalization and a standby generator. The RARE

Water Project provides 3.5 MGD of recycled water for boiler feedwater at the refinery. Chevron reimbursed the District approximately \$55 million in the aggregate for capital costs of the RARE Water Project.

Another significant recycled water project of the District is the East Bayshore Recycled Water Project. The East Bayshore Recycled Water Project became operational in 2008. The project currently serves 25 commercial and governmental customers in the Oakland area. The District continues to expand this system to serve additional customers. When fully implemented, the East Bayshore Recycled Water Project is designed to provide up to 2.3 MGD of recycled water for delivery to customers.

Water Rights and Related Proceedings

Mokelumne River Rights. The District's appropriative rights to its Mokelumne River water supply include a license, which has a priority date of 1924, entitling the District to divert up to 200 MGD (approximately 224,000 acre-feet per year) to its service area from the Mokelumne River, and a permit, which has a 1949 priority date, entitling the District to divert up to an additional 125 MGD (approximately 140,000 acre-feet per year) of Mokelumne River water to the service area. In August 2016, the District's Mokelumne River permit was extended to 2040.

In addition to the water rights described above, the District also has a series of rights for the production of hydroelectric power at Pardee and Camanche Dams. Three of the six petitions filed by the District with the SWRCB and mentioned above are associated with the non-consumptive hydropower rights at Pardee Reservoir. The District also holds rights associated with its local reservoirs.

As previously noted, the State has placed conditions on operations in the District's Mokelumne River water rights requiring that minimum releases be made from Camanche Reservoir for the protection of anadromous fisheries. The District has entered into a series of agreements with State and federal agencies which are incorporated into its water rights and implemented through the annual Water System operations plan. Notably, the 1998 Joint Settlement Agreement is a multi-party agreement that provides for mitigation of the impact of the construction of Camanche Dam and Reservoir on historical spawning grounds for anadromous fish. Pursuant to the 1998 Joint Settlement Agreement, the District's required minimum releases from Camanche Dam are adjusted to reflect the time of year and type of Water Year (e.g., Normal/Above Normal, Below Normal, Dry and Critically Dry). In critically dry and dry years, a minimum average of from 22,500 to 65,000 acre-feet per year must be released downstream by the District to satisfy its obligations for the protection of fisheries resources. The recent four-year drought from 2012 through 2015 included both dry and critically dry years. The District met all obligations under its water rights with very good results for anadramous fish protection. In spite of the drought, near record fall run chinook salmon returns occurred on the Mokelumne River. See also "– Water Supply – Mokelumne River Watershed."

Central Valley Project Improvement Act. In 1992, Congress enacted the Central Valley Project Improvement Act ("CVPIA") which provides environmental protections for fish and wildlife in the operation of the CVP. In 2000, the Bureau issued a Record of Decision on the CVPIA Programmatic Environmental Impact Statement ("PEIS"). The PEIS identified the impacts to CVP contract water supplies as a result of implementing the new fish and wildlife protection provisions of the CVPIA. The CVPIA requires that all CVP contracts contain provisions consistent with the CVPIA, including provisions for conservation and tiered prices. The District's executed Long-Term Renewal CVP Contract is consistent with the CVPIA provisions. All CVP contractors are subject to shortages in CVP supply and potentially reduced allocations during dry years. Due to the then ongoing statewide drought and the resulting reduction in available water supplies, the District's CVP allocation was reduced by 50% in 2014 and by 75% in 2015. Even with the reduced allocations, the District did not need delivery of its full CVP allocation in 2014. In 2015, the District supplemented its reduced CVP allocation through the purchase of

Supplemental Supply under water transfers. See "- Water Supply - Supplemental Supply-United States Bureau of Reclamation Central Valley Project Contract" above.

Current Water Conditions

Following four consecutive drought years from 2012 through 2015, precipitation and runoff in Water Year 2016 were sufficient to restore the water storage levels in the District's reservoirs to more normal levels. The District began Water Year 2017, which commenced on October 1, 2016, with 608,110 acre-feet in total system storage (Pardee, Camanche and East Bay terminal reservoirs), representing 79% of capacity or 109% of average. The District monitors precipitation and reservoir levels daily. Water Year 2017 is currently the wettest year on record in the Mokelumne watershed. As of March 1, 2017, the District had 744,190 acre-feet of water stored in all of its reservoirs combined. As of such date, the District's reservoirs were approximately 96% of capacity, or approximately 126% of average (based on 10-year average from 2001-2011). Season-to-date precipitation in the Mokelumne basin was 68.73 inches, or approximately 201% of average (based on 60-year average from 1952-2012).

Table 3 sets forth the capacity and water storage levels at the District's water reservoirs as of March 1, 2017.

Table 3
DISTRICT WATER RESERVOIRS
Current Capacity and Storage Levels

{table to be updated to current date at time of mailing}

	Current					
Data as of March 1, 2017	Capacity (acre-feet)	Storage (acre-feet)	% of Capacity	% of Average ⁽¹⁾		
Mokelumne	_					
Pardee	203,795	204,340	100%	112%		
Camanche	417,120	390,980	94	143		
Total Mokelumne	620,915	595,320	96	131		
Terminal Reservoirs						
Briones	58,960	57,110	97	103		
Upper San Leandro	38,905	39,150	101	125		
San Pablo	38,600	38,020	98	111		
Chabot	10,350	10,680	103	117		
Lafayette	4,250	3,910	92	102		
Total Terminal Reservoirs	<u>151,065</u>	<u>148,870</u>	99	111		
Total System Storage	771,980	744,190	96	126		

⁽¹⁾ Based on 10-year average from 2001-2011.

Source: District Water Operations Department.

For a description of the District's reservoirs and other Water System facilities, see "- Water Facilities." See also "- Dam Licensing and Safety Issues" and "-Water Supply Operations."

Water Supply Management Plan

In 2012, the District updated its long range planning with its Water Supply Management Plan, extending the planning horizon from 2020 to 2040 ("WSMP 2040"). WSMP 2040 serves as the plan to ensure an adequate supply of water through the year 2040 for District customers. The primary objectives of WSMP 2040 are to maintain and improve the District's water supply reliability to its customers and

help meet the growing need for water in the future. WSMP 2040 also guides adaptation of the District's water planning approach to circumstances that have changed since its prior Water Supply Management Plan, WSMP 2020, was adopted, such as competing and changing demands for water, the availability of water from the completed FRWP and Bayside Groundwater Project Phase 1, and long-term climate change. Further, the goal of the WSMP 2040 continues to be to examine what the District has done historically and what it can do in the future to ensure optimal use of the District's water resources.

WSMP 2040 assesses the supplemental supplies that are expected to be needed to serve a projected increase in water demand in the District's service area of approximately 0.8% per year between 2010 and 2040 (an additional 60 MGD from 2010 to 2040). WSMP 2040 provides for sufficient water supply reliability by making the conservative assumption that all senior water rights holders along the Mokelumne River are using their full allotment of water. Current use is far below that full allotment.

WSMP 2040 provides for the District to meet its future drought year needs for water through 2040 by:

- (1) achieving a water conservation target of 62 MGD by the year 2040;
- (2) increasing water recycling to 20 MGD;
- (3) continued rationing during times of drought by up to 15%; and
- (4) securing an additional 115,000 acre-feet (35 MGD annual average) of supplemental water supplies for use during extended droughts. Potential supplemental supplies identified include water transfers, additional surface water storage facilities, development of groundwater banking projects, and development of a desalination project.

WSMP 2040 addresses the uncertainties posed by future climate change through its multi-element approach of demand management and a wide array of potential future supply options. In 2008, the District incorporated climate change into its Strategic Plan and issued its first Climate Change Monitoring and Response Plan. The Strategic Plan and Climate Change Monitoring and Response Plan are reviewed and updated every two years. An interdisciplinary staff committee reviews the evolving science of climate change, assessing potential water supply impacts and vulnerabilities, and developing strategies for adaptation and mitigation. This information will continuously inform the implementation process for projects and programs under WSMP 2040. See also "– Climate Change" below.

As contemplated by WSMP 2040, the District is undertaking efforts to identify and secure sources of supplemental water supply. Certain of these activities are further discussed below:

Water Transfer Agreements. As a part of the District's supplemental supply efforts, the District has pursued opportunities to develop additional dry-year supplies through water transfer agreements and other collaborative arrangements with other agencies. These efforts are primarily focused on opportunities with various entities within Northern California, and specifically within the Sacramento River watershed, with a view toward utilizing the FRWP to move supplies as secured via water transfers. As described under "– Water Supply – Supplemental Supply—Water Transfers and Other Arrangements," in 2013, the District executed a memorandum of understanding with PCWA to develop the terms of a potential long-term-water transfer agreement under which the District would purchase 10,000 to 47,000 acre-feet of water released from PCWA reservoirs to the lower American River under certain conditions during dry years. The memorandum of understanding also guides short-term (annual) water transfers in the interim period until the long-term agreement is executed. The District utilized the memorandum of understanding with PCWA in Water Years 2014 and 2015 to provide additional sources of supplemental supply through one-year water purchase agreements. The District has developed a number of other potential transfer partners who either have senior water rights on the Sacramento River or have sufficient water supplies and water storage to provide dry year water to the District if needed. Future supplemental water supply

initiatives expected to be undertaken by the District include pursuing similar long-term arrangements with additional sellers that can provide certainty and flexibility to purchase transfer water during drought periods.

<u>Potential Storage Sharing Arrangement</u>. As part of WSMP 2040, the District identified a possible contractual relationship and/or partnership opportunity with Contra Costa Water District ("CCWD"), an adjacent water agency, to secure from 20,000 to 30,000 acre-feet of storage in CCWD's Los Vaqueros Reservoir (the expansion of which was completed in 2012 to increase its total storage from 100,000 acre-feet to 160,000 acre-feet). The District is currently conducting planning studies and preparing a grant application with CCWD and other agencies for a further enlargement of Los Vaqueros Reservoir. That application will be submitted to the California Water Commission for consideration in the summer of 2107.

Regional Groundwater Banking Options. The District has been exploring groundwater resource development in San Joaquin County. The overdrafted aquifer within San Joaquin County, which is traversed by the Mokelumne River and the District's Mokelumne aqueducts, presented an opportunity for a joint project of mutual benefit. In 2013, a memorandum of agreement was developed and executed by San Joaquin County and the District which outlines the roles and responsibilities of the two agencies in connection with implementation of a groundwater banking demonstration project. In 2014, the parties entered into a Cost Share Agreement to share the expenses associated with the preliminary engineering, planning and environmental review of the demonstration project. Operation of the demonstration project will enable potential project proponents and participants to evaluate the feasibility of a permanent banking project in San Joaquin County. Environmental documentation and preliminary design of this banking project are now complete. In February 2017, the San Joaquin County Advisory Water Commission voted unanimously to recommend the project to the San Joaquin County Board of Supervisors who will consider approval of a groundwater export permit for the project in April 2017. Construction of the project would follow approval of that permit, if it occurs.

<u>Bay Area Regional Desalination Project</u>. Since 2003, the District has been working with other Bay Area water agencies, specifically the San Francisco Public Utilities Commission ("SFPUC"), CCWD and Santa Clara Valley Water District, and since 2010, the Alameda County Flood Control and Water Conservation District, Zone 7, to explore the development of regional desalination facilities that could (1) provide additional source(s) of water during emergencies, (2) provide an alternative water supply that would allow major facilities to be taken out of service for an extended period of time for inspection, maintenance or repairs, and (3) provide a supplemental supply during drought periods.

In the spring of 2010, the District and its partners finalized a report on the completed pilot testing of a desalination facility. The test was conducted in 2009 within the CCWD service area along Mallard Slough. In 2012, a study was initiated to review how water would be conveyed from a regional plant to the various water supply agencies. That study work was completed in March 2014, and will be used in the evaluation of the feasibility of developing a full scale regional desalination project. In 2015, the partners expanded the group of agencies involved in this regional water supply effort and began evaluation of alternative opportunities to improve regional water supply reliability. Specifically, the five regional desalination partner agencies, together with Alameda County Water District, Marin Municipal Water District and the Bay Area Water Supply and Conservation Agency, have joined forces to advance the concept of Bay Area Regional Reliability ("BARR"). A BARR Feasibility Study is contemplated that will review how the construction of mutually beneficial projects (such as system interties, expanded water treatment capabilities and/or enhanced water transmission systems, among others) could result in regional benefits that would be realized during times of drought and/or unforeseen emergencies. In the late spring of 2014, all eight agencies adopted a Principles document outlining their interest in furthering the BARR concept. In 2015, the eight agencies secured federal funding to support the BARR Feasibility Study effort.

That effort is now underway and the first work effort will be a Drought Contingency Plan to be finalized in 2017.

Water Conservation

The District has developed a Water Conservation Master Plan, most recently updated in 2011 (the "WCMP"), which directs the District's comprehensive water conservation strategies and initiatives to promote water efficiency and conservation toward long-term water supply reliability. The WCMP serves as a blueprint for implementation strategies, goals and objectives for achieving additional water savings consistent with the targets identified in the District's 2015 Urban Water Management Plan ("UWMP"). The District provides educational, technical and financial assistance to encourage customers to use water efficiently to help assure an adequate water supply. The District advises customers on water-efficient technology, best management practices, and water-saving opportunities. Water conservation services include water use surveys, landscape water budgets, home water reports, new services plan check reviews, incentives for high-efficiency plumbing fixtures, appliances, process equipment, landscaping and irrigation systems, and free distribution of conservation self-survey kits and water efficient devices (*i.e.*, showerhead, faucet aerators, hose nozzles) that save water. The District is also very active in new water conservation technology research and the development of education and demonstration projects.

The WCMP incorporates elements of the State Water Conservation Act of 2009 (Senate Bill 7x 7) toward a statewide goal of a 20% reduction in urban per capita water use by the year 2020. All urban water agencies in the State were required to report their baseline per capita water use and reduction targets in their 2015 UWMP. The District has determined its base daily per capita use utilizing a State-approved methodology which applies a 5% reduction from the District's 2003 to 2007 baseline usage. The resulting District target for the year 2020 is 153 gallons per capita per day with an interim target for the year 2015 of 158 gallons per capita per day.

Drought Response Actions

Droughts are common in California and have occurred several times in the last few decades including 1976-1977, 1987-1992, 2007-2008, and most recently, 2012-2015. In dry periods, the District will generally meet demands through a combination of voluntary water conservation efforts, utilization of available storage (not below certain threshold levels) and Supplemental Supply resources, including its Long-Term Renewal CVP Contract, and when appropriate, implementation of mandatory use restrictions. See also "–Water Supply Operations."

Historically, the District plans for and implements drought response in accordance with its Water Shortage Contingency Plan ("WSCP"), which includes Drought Management Program ("DMP") Guidelines, as outlined in the District's UWMP. The District's declarations of drought have been typically driven by local conditions, relying on the District's "projected total system storage at the end of a Water Year." Under a drought scenario, declaration of a drought and its associated severity, or drought stage, is tied to the District's projected total system storage at the end of the Water Year. As the District's projected total system storage at the end of the Water Year decreases, the severity of the drought increases, with a corresponding "ramp up" in drought actions, including the acquisition of supplemental water supplies and increasing levels of customer demand reduction.

The District updated its DMP Guidelines twice during the recent drought: (i) in 2015, to reflect the District's successful experiences using the FRWP facilities and to incorporate a new drought rate structure (see "WATER SYSTEM FINANCES – Rates and Charges" and "–Drought Surcharges"); and (ii) in 2016, to allow flexibility in the first year of a drought to account for customer demand reduction levels, availability of CVP water, and mandatory conservation requirements imposed by the SWRCB through adoption of an emergency regulation in response to statewide drought conditions.

The DMP Guidelines are designed to be used by District staff in evaluating the District's annual water supply as part of the Water Supply Availability and Deficiency Report prepared by staff for presentation to the Board each Spring. The DMP Guidelines, as revised, provide established parameters for the level of rationing the District may consider and the amount of Supplemental Supply that the District may require based on the District's projected total system storage at the end of a Water Year. The revised DMP Guidelines incorporate a four-stage system for classifying the level of drought severity, consistent with the rate design structure adopted by the Board in 2015.

The District adopted its updated WSCP on June 28, 2016. The WSCP, as updated, provides the District with additional flexibility to consider earlier drought actions and to address potential scenarios in which State-mandated water use reduction requirements exceed water use reductions that would otherwise be called for based upon the District's end-of-September total system storage. The WSCP defines an orderly process for collecting information on water supply availability, assessing conditions, determining fiscal actions, allocating resources, enforcing regulatory water use restrictions, monitoring customer response, and planning and implementing drought communications. The WSCP describes the District's actions to implement and enforce regulations and restrictions for managing a water shortage when it declares a water shortage emergency under the authority of the Water Code. It also describes the District's planned actions to manage supply and demand before and during a water shortage to ensure a reliable water supply. The WSCP identifies the types of programs and actions that the District might undertake at each state of drought (and targeted level of voluntary or mandatory water use reduction applicable) for the applicable total system storage scenario. Such programs and actions include, among other things, customer outreach and public information campaigns, distribution of water saving devices, water use restrictions, and imposition of corresponding drought surcharges and excess use penalties.

The District's comprehensive approach to drought response planning includes managing the fiscal challenges posed by multi-year drought conditions. See "WATER SYSTEM FINANCES – District Management's Discussion of Fiscal Year 2016 Operating Results" and "– Discussion of Projected Operating Results for Fiscal Year 2017" for information regarding the impact of the recent California drought on the District's water rates and revenues and the District's strategies for addressing the effects thereof.

The District has been undertaking capital investment and planning activities for decades in order to position itself to manage through droughts. The District's investments in conservation, recycling and the construction of the Freeport facilities to deliver water from the Sacramento River to the East Bay were key in successfully managing the District's water supply through the recent drought, the driest four year period in the history of the District.

Water Facilities

Pardee Reservoir. The District's Mokelumne River water is collected and stored at Pardee Reservoir, located in the Sierra Nevada foothills approximately 90 miles east of the District and 38 miles northeast of Stockton. Pardee Reservoir has a storage capacity of 203,795 acre-feet.

Camanche Reservoir. Camanche Reservoir is located ten miles below Pardee Reservoir on the Mokelumne River. Camanche Reservoir has a capacity of 417,120 acre-feet and serves to control floods and to regulate the river flow in order to satisfy downstream water rights.

Terminal Reservoirs. Five terminal reservoirs located within the District's service area provide combined usable storage of approximately 151,065 acre-feet: San Pablo (with a capacity of 38,600 acre-feet), Briones (with a capacity of 58,960 acre-feet), Lafayette (with a capacity of 4,250 acre-feet), Upper San Leandro (with a capacity of 38,905 acre-feet) and Chabot (with a capacity of 10,350 acre-feet).

Aqueducts. Raw untreated water is transported 91.5 miles from Pardee Reservoir, through the Pardee Tunnel, the Mokelumne Aqueducts and the Lafayette Aqueducts, to the District's service area, where it is stored in terminal reservoirs or delivered directly to treatment plants prior to distribution. The Pardee Tunnel is an 8-foot high horseshoe structure 2.2 miles long. The three Mokelumne Aqueducts have a combined capacity of 200 MGD under gravity flow, and approximately 325 MGD with existing pumping facilities. The first Mokelumne Aqueduct is 5-feet, 5-inches in diameter, the second is 5-feet, 7-inches in diameter, and the third is 7-feet, 3-inches in diameter. All are steel pipelines extending 81 miles from the Pardee Tunnel to the east end of the two Lafayette Aqueducts in Walnut Creek. Approximately nine miles of pipeline is above-ground and the balance is below-ground.

Lafayette Aqueduct No. 1 is a 9-foot in diameter circular concrete pipe and three tunnels that extend 7.1 miles from Walnut Creek to the Orinda Filter Plant. Lafayette Aqueduct No. 2 is a 9-foot in diameter concrete pipe with seven tunnels extending 7.3 miles from the Walnut Creek Water Treatment Plant to the Briones Diversion Works near Orinda. The supply is then pumped (or diverted) through the 7-foot, 6-inch diameter steel Briones Aqueduct into Briones Reservoir, discharged into San Pablo Reservoir, or diverted through the 7-foot, 6-inch diameter steel Orinda Raw Water Line to Orinda Filter Plant. Either or both Lafayette Aqueducts can be used to divert Mokelumne River water from Pardee directly or indirectly to all of the District's water treatment plants.

The Mokelumne Aqueducts cross the Sacramento-San Joaquin Delta for about fifteen miles and are protected by 51 miles of levees maintained by five reclamation districts governing Lower Roberts and Woodward Islands, Orwood and Palm, Upper Jones, and Lower Jones Tracts. The District has established a multi-pronged approach to protect the aqueducts from flooding and to recover from failures. These strategies include levee strengthening, aqueduct interconnections, and standby materials and supplies to respond to an emergency.

The District worked with the five reclamation districts to obtain \$33.5 million in funding for levee strengthening and to purchase emergency supplies and the District provided the \$6 million local cost share. This funding was used to bring forty-one miles of levees, adjacent to the Mokelumne Aqueducts, up to the U.S. Army Corps of Engineers standards and to purchase materials and supplies to facilitate emergency response. These levee improvements substantially improve the stability of the levees and help protect the District's water supply and the region's agriculture, cultural, and historical resources, as well as the ecosystems in the Delta.

At a cost of \$14 million, the District constructed interconnections to the three Mokelumne Aqueducts on each side of the Delta. These interconnections are designed to allow the District to restore 77% of the raw water system capacity with only one pipe in operation across the Delta. The District has six months of storage locally to serve its customers during an outage of the raw water system resulting from a failure in the Delta. This will bolster the resilience of the District's water supply system by enabling a rapid return to service after a failure with sufficient capacity to meet customer needs and begin to recover local storage.

Freeport Regional Water Project. The 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 Bureau, the District and SCWA formed the Freeport Regional Water Authority (hereinafter, "FRWA") under a joint powers agreement to develop the FRWP. As described above, the FRWP provides the permanent infrastructure to allow the District to receive water deliveries pursuant to the Long-Term Renewal CVP Contract at a new point of diversion along the Sacramento River. See "—Water Supply —Supplemental Supply—United States Bureau of Reclamation Central Valley Project Contract. The capacity of the FRWP is designed to provide up to 100 MGD (112,000 acre-feet per year) of supplemental water supplies to the District in dry years and up to 85 MGD to SCWA in all years. The combined FRWP system was placed into commercial operation in November 2011.

The District has entered into a Dedicated Capacity Purchase Agreement, dated as of May 1, 2007 (the "Dedicated Capacity Purchase Agreement"), by and between FRWA and the District, relating to the FRWP. Pursuant to the Dedicated Capacity Purchase Agreement, FRWA sells to the District and the District acquires 100 MGD of capacity in the FRWP ("Dedicated Capacity") in accordance with the Second Amended Joint Exercise of Powers Agreement Concerning the Freeport Regional Water Authority dated as of November 20, 2006 (the "FRWA JPA Agreement"). The purchase price of the Dedicated Capacity has been paid by the District as a portion of the District's capital cost of the FRWP in accordance with the FRWA JPA Agreement. In the event of future capital improvements to the FRWP, the District may be required to make additional capital contributions for its share of such costs pursuant to the FRWA JPA Agreement.

The FRWP diverts water from the Sacramento River near the community of Freeport and conveys this water through pipelines and the existing Folsom South Canal ("FSC") to the District's Mokelumne Aqueduct near Camanche Reservoir. A turnout in the pipe within central Sacramento County delivers water to SCWA. Water available to the District pursuant to its Long-Term Renewal CVP Contract is delivered through the FRWP. Water can also be delivered to the District through the FRWP from other Supplemental Supply such as water transfers. CVP or transfer water received by the District is treated at existing District treatment facilities prior to delivery to customers. Short-term storage, if needed, is provided at the District's terminal reservoirs, including its San Pablo, Upper San Leandro and Briones Reservoirs.

The FRWP includes a number of significant components. Chiefly, the components consist of an intake and pumping plant, approximately 16 miles of pipeline and a communications system. The capacity of the intake and pumping plant is 185 MGD. The pipeline includes a 7-foot diameter segment which runs from the intake to the SCWA turnout, a 5-foot, 6-inch diameter pipeline segment which feeds a SCWA Treatment Plant and a 6-foot diameter pipeline segment which discharges to the FSC. Fiber optic and radio systems link project facilities and key outside agencies.

Water flows within the FSC for 14 miles and, in turn, is recaptured by the District and directed via pipeline along a route which leads to the District's Mokelumne Aqueducts. That southern system (known as the FSC Connection or the "FSCC") is a District-only element, and includes two 100 MGD pumping plants (an intake and a pumping plant at the terminus of the FSC and a high head pumping plant near Camanche Reservoir) and approximately 19 miles of 6-foot diameter pipeline.

Raw Water Pumping Plants. The majority of the Water System is gravity-fed, with seasonal pumping. Walnut Creek No. 1, No. 2 and No. 3 Pumping Plants increase the capacities of the Mokelumne Aqueducts. When operating, these three pumping plants increase the combined capacity of the aqueducts to approximately 325 MGD. The Moraga Pumping Plant and Aqueduct supply water from the Lafayette Aqueducts to Upper San Leandro Reservoir. The plant's four pumps have a combined delivery capacity of 105 MGD; however, the configuration of the existing outlet limits delivery to a maximum rate of 58 MGD. The Moraga Aqueduct is six miles of 5.5-foot, 5-foot and 4-foot diameter steel and concrete pipe between Lafayette and the Upper San Leandro Reservoir near Moraga. The Briones Pumping Plant and Aqueduct were placed in service following completion of Briones Reservoir. These facilities supply Briones Reservoir with Mokelumne River water. The four pumps in the Briones No. 2 Pumping Plant can deliver up to a total of 60 MGD.

Tunnels. Untreated water from San Pablo Reservoir is delivered to Sobrante Treatment Plant through a 5-foot, 6-inch diameter steel pipe; water from the Upper San Leandro Reservoir is delivered to the Upper San Leandro Treatment Plant through a 1.35 mile, 6-foot, 6-inch diameter horseshoe tunnel. The San Pablo Tunnel is 5-feet in diameter and can carry water 2.57 miles from the San Pablo Reservoir to the standby San Pablo Water Treatment Plant.

Treatment Plants. Water delivered to the District's customers is first treated at one of six treatment plants. The six water treatment plants in the District's Water System are capable of filtering and processing a combined total of approximately 390 MGD. The water treatment plants are Upper San Leandro in Oakland, San Pablo in Kensington (standby only), Sobrante in El Sobrante, and plants located in and named for Orinda, Lafayette and Walnut Creek. Orinda Water Treatment Plant is the largest, with a peak capacity of 175 MGD.

Distribution Facilities. From the Orinda Water Treatment Plant treated water is carried 3.41 miles through the Claremont Tunnel, a 9-foot diameter horseshoe bore to three distribution aqueducts. The water distribution network includes over 4,100 miles of pipe, 132 pumping plants and 171 neighborhood reservoirs (including approximately 143 above-ground concrete or steel reservoirs), having an operating capacity of 636 million gallons. The District's service area is divided into 124 pressure zones, ranging in elevation from sea level to 1,450 feet. About 60% of treated water is distributed to customers by gravity flow.

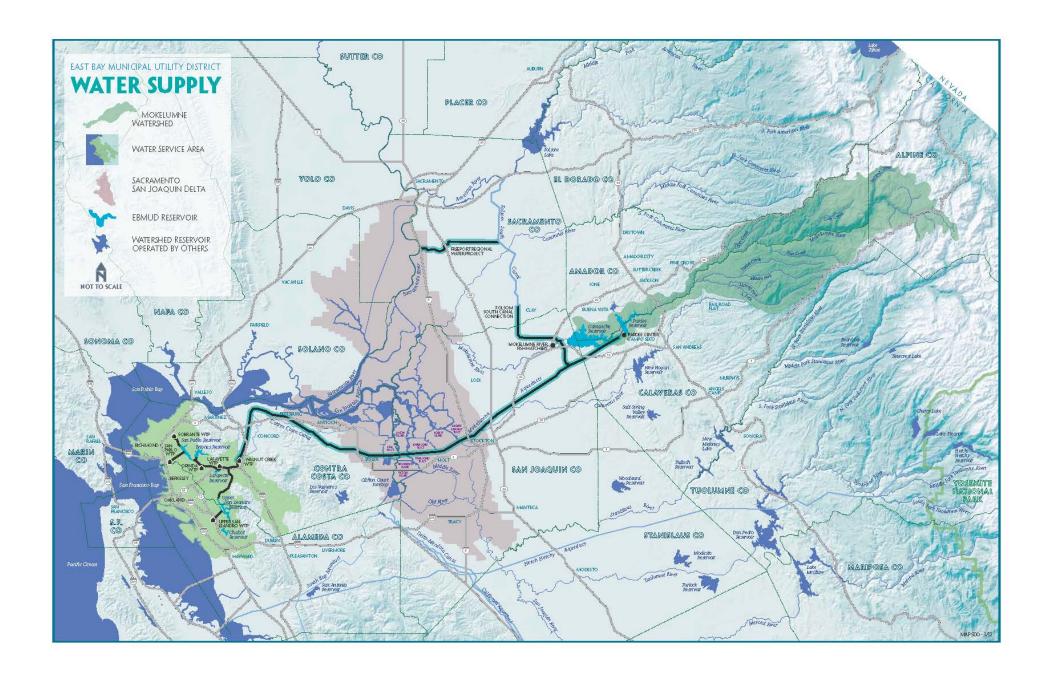
Pardee and Camanche Power Plants. The District operates hydropower plants at Pardee and Camanche Reservoirs pursuant to a Federal Energy Regulatory Commission ("FERC") license. The District's Pardee and Camanche hydropower plants are licensed as one project, the Lower Mokelumne River Project No. 2916. The current FERC license for these hydropower plants expires on March 31, 2031. These plants generate 185 million kilowatt hours of electricity in normal rainfall years. Other than a small amount of power being used at the District facilities at Pardee and Camanche, the power produced is currently being sold by the District to Marin Clean Energy, under a 10-year power purchase agreement which expires on June 30, 2025. See "WATER SYSTEM FINANCES – Power Sales Revenues."

Regional Intertie. In 2007, the District, the City of Hayward ("Hayward") and SFPUC completed an intertie to allow for 30 MGD of water to be conveyed between the District and SFPUC water systems via Hayward's distribution system. This project, which was funded by the participating agencies and the State through a Proposition 50 grant, provides the District and neighboring agencies increased flexibility to provide water throughout the region during an emergency. The intertie allows sharing of water among the parties during emergencies or planned critical work on facilities that would be difficult to remove from service without an alternative water source. The project consisted primarily of improvements within Hayward's water system, although there were associated minor improvements in the District and SFPUC systems.

See also "- Capital Improvement Program" for a discussion of the District's current five-year capital plan for the maintenance and improvement of its infrastructure and facilities.

Water Supply Operations

General. As described above, the District's water supply system consists of an integrated network of reservoirs, aqueducts, raw water pumping plants, treatment plants, and distribution facilities that extend from its principal water source, the Mokelumne River watershed basin in the Sierra Nevada range, across the San Francisco Bay/Sacramento-San Joaquin Delta (the "Bay-Delta"), to the East San Francisco Bay Area. Set forth on the following page is a location map depicting the District's water supply system facilities.



Streamflow from the Mokelumne River is collected and stored in the District's Pardee and Camanche Reservoirs, located in the Sierra foothills. Raw water from Pardee Reservoir is transported to the East Bay terminal reservoirs and treatment plants through the Pardee Tunnel, the three Mokelumne Aqueducts, and the Lafayette Aqueducts. The raw water is treated at one of the District's treatment plants before being delivered to customers.

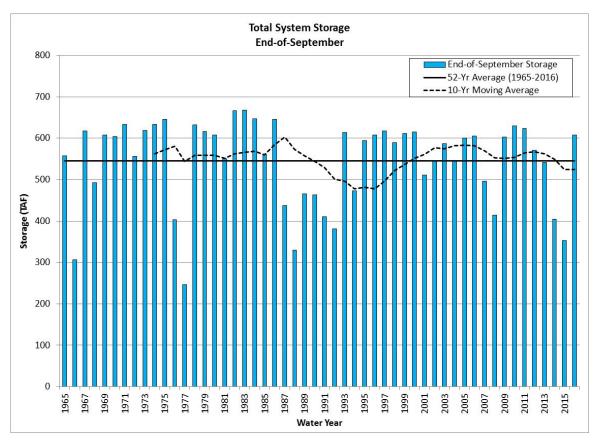
The District operates the Water System to achieve multiple objectives. These objectives are to provide municipal water supply benefits, stream flow regulation, fishery/public trust interests, flood control, temperature management and obligations to downstream diverters. All of the components of the system, including Pardee and Camanche Reservoirs, the Mokelumne Aqueducts, and the East Bay terminal reservoirs are interdependent; for this reason, the District develops an annual operations plan for the entire water supply system. The annual water supply operations plan includes scheduled operations from April through September and identifies all District requirements.

The District plans its operations according to three projections: the California Department of Water Resources ("CDWR") April 1st Water Supply Forecast, the District's End-of-September (the end of the Water Year) projected total system storage, and the District's projected November 5th combined storage for Pardee and Camanche Reservoirs. Reservoir storage levels are required to be reduced by November 5th of each year to maintain the minimum level of available space necessary for flood control purposes. The projected November 5th combined storage for Pardee and Camanche is also utilized in determining the required releases for fish flows for the October through March period each year. The District monitors projections throughout the year and adjusts reservoir operations, as conditions change, to meet its goals, objectives and requirements.

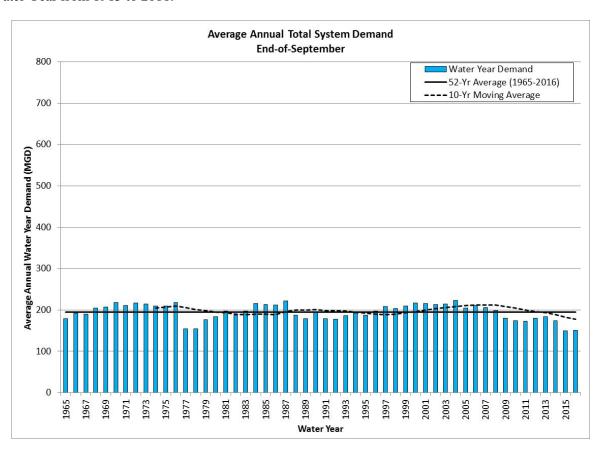
The District begins the Water Year by committing to provide the required minimum fish flows, associated with the projected November 5th storage levels for Pardee and Camanche Reservoirs, for the period October through March. Through fall and winter, the District continues to track rainfall, runoff, storage and demand to reassess reservoir operations as needed. By April, the District has a good indication of projected storage conditions for End-of-September total system storage and November 5th Pardee and Camanche reservoir storage.

On April 1st of each year, CDWR releases its snow survey water supply forecast of runoff for the Mokelumne River. The District uses the forecast to develop its Annual Water Supply Operations Plan, in which it schedules operations to meet all requirements according to the forecast for the period April through September. Scheduled operations include Camanche Reservoir releases in accordance with the prescribed flow requirements. As required by the District's Water Supply Availability and Deficiency Policy, the District Board is informed of the forecasted water supply condition for the end of the Water Year on September 30th. The September 30th storage forecast is used to determine if drought management measures will need to be implemented to reduce demand to ensure sufficient carryover storage for the following year. If dry year conditions exist (*i.e.*, projected total system storage on September 30th is less than 500,000 acre-feet), the Board will typically consider implementing demand management measures for the rest of the Water Year if the projected storage is significantly below 500,000 acre-feet. Projected End-of-September storage is required to be less than 500,000 acre-feet for the District to be able to utilize the Supplemental Supply made available under the Long-Term Renewal CVP Contract.

The graph on the following page shows historical End-of-September storage from 1965 to 2016. As shown on the below graph, the driest period for the District was 1976 to 1977. The longest dry period during such time frame was the extended drought from 1987 to 1992.



Set forth below is a graph depicting the average annual total Water System demand for each Water Year from 1965 to 2016.



The District was able to provide water to its customers during the 1976-1977 drought, and during the extended five year drought from 1987 to 1992, without Supplemental Supply by relying on available storage. The completion of the FRWP facilities in 2011 provides the District with a Supplemental Supply during dry periods of up to 165,000 acre-feet of water under its Long-Term Renewal CVP Contract over a three-year period as described herein. See "— Water Supply — Supplemental Supply—United States Bureau of Reclamation Central Valley Project Contract." In dry periods, the District will generally meet demands through a combination of voluntary water conservation efforts, utilization of available storage (not below certain threshold levels), available Supplemental Supply resources, including FRWP, and, when appropriate, implementation of mandatory use restrictions. See also "— Drought Response Actions."

Water Quality and Treatment; Other Regulatory Matters

Federal and State regulatory agencies continually monitor and establish new water quality standards. New water quality standards could affect availability of water and impose compliance costs on the District. The federal Safe Drinking Water Act ("SDWA") establishes drinking water quality standards, monitoring, public notification and enforcement requirements for public water systems. To achieve these objectives, the USEPA, as the lead regulatory authority, promulgates national drinking water regulations and develops the mechanism for individual states to assume primary enforcement responsibilities. The California Department of Public Health ("CDPH"), formerly known as the Department of Health Services, has lead authority over California water agencies. On July 1, 2014, the Drinking Water Program transferred from the CDPH to the SWRCB. The Division of Drinking Water ("DDW") regulates public drinking water systems in California.

Currently, the State and the federal government regulate over 100 potential contaminants. Because the District's water supply comes primarily from a remote, semi-protected watershed, the raw water requires minimal treatment to meet or surpass all health and aesthetic standards. The District's drinking water is sampled and tested on an ongoing basis from all parts of the Water System to ensure that it meets or surpasses all primary (health related) and secondary (aesthetic) regulatory standards established by the USEPA and the DDW. Test results on the District's water consistently show that regulated constituents of drinking water either are not detected at all, or they are present in amounts far below limits permitted by State and federal drinking water standards.

The District is actively involved with professional organizations at the federal and State levels related to water quality, including the American Water Works Association, ACWA and the Association of Metropolitan Water Agencies. The District serves on technical advisory committees that interact with the USEPA during regulatory development or alteration, and worked with the USEPA on updates to the Total Coliform Rule. In addition to working with the EPA, the District has developed its own water quality initiatives, including developing State and federal legislation to limit lead levels in household plumbing fixtures. The District also sits on national standards organizations which set standards for all aspects of water quality. The District was a founding member of the Water Research Foundation ("WRF") and actively participates in research projects; with the WRF, the District participates on numerous project advisory committees and carries out funded research.

As part of routine operations and maintenance activities of the Water System, the District may discharge some treated water to the environment. Public water system discharges to State and federal waters are regulated under a Statewide General National Pollutant Discharge Elimination System ("NPDES") Permit for Drinking Water System Discharges. The statewide permit is administered by the SWRCB and enforced by the San Francisco and Central Valley Regional Water Quality Control Boards (the respective "Regional Board") for parts of the system in the San Francisco Bay Area and Central Valley, respectively. This permit imposes discharge limitations, monitoring, reporting, notification requirements, and application of Best Management Practices to mitigate any potential impacts to the

environment. The permit was issued in 2014, the District applied for coverage in June 2015, and received notice from the SWRCB of coverage under the statewide Permit in October 2015.

The District is generally operating and maintaining the Water System treatment, distribution, and transmission facilities in compliance with the NPDES permit requirements. Most recently, in October 2015, November 2015, and May 2016, the District experienced unplanned emergency potable water discharges associated with water main breaks. In each of these cases, the potable water releases reached local waterways and resulted in fish kills despite rapid staff response and deployment of industry best management practices to the maximum extent practicable to minimize impacts. The District is in the process of enforcement negotiations with regulatory agencies for these incidents, but is unable to predict the fines that may be imposed by the San Francisco Regional Board and the California Department of Fish and Wildlife in connection with these incidents.

As described herein, the operation of the Water System is subject to a variety of federal and State statutory and regulatory requirements concerning matters such as water quality, dam safety, instream fishery flows, discharges and endangered species. The District's failure to comply with applicable laws and regulations could result in significant fines and penalties. In addition to claims by private parties, changes in the scope and standards for public agency water systems such as the Water System may also lead to administrative orders issued by federal or State regulators. Future compliance with such orders could also impose substantial additional operating expenses on the Water System.

Statewide Water Issues

Recent Drought. Even though most of California has seen far higher than normal precipitation in Water Year 2017, following the drought period of 2012-2015 Governor Jerry Brown and the SWRCB maintained in place the declaration of a drought state of emergency until April 2017. On April 7, 2017, the Governor signed Executive Order B-40-17 ending the drought state of emergency in most of California (excluding the counties of Fresno, Kings, Tulare and Tuolumne), while maintaining water reporting requirements and prohibitions on wasteful practices, such as watering during or right after rainfall. The primary objective of this is to ensure that California continues the water saving behaviors undertaken in response to the drought. The SWRCB is expected to maintain many of the conservation actions mandated during the drought as new conservation standards to remain in place at all times. Further direction and rules from the SWRCB in this area are expected in 2017.

Bay-Delta Proceedings. Over the last 20 years, there has been ongoing attention at the State and federal level on restoring the Bay-Delta. In 2006, multiple State and federal resource agencies, water agencies, and other stakeholder groups entered into a planning agreement for the Bay-Delta Conservation Plan ("BDCP"). The BDCP was originally conceived as a comprehensive conservation strategy for the Bay-Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework to be implemented over a 50-year time frame with corresponding long-term permit authorizations from fish and wildlife regulatory agencies. The BDCP includes both alternatives for new water conveyance infrastructure and extensive habitat restoration in the Bay-Delta.

In 2015, the State and federal lead agencies proposed an alternative implementation strategy and new alternatives to the BDCP to provide for the protection of water supplies conveyed through the Bay-Delta and the restoration of the ecosystem of the Bay-Delta, termed "California WaterFix" and "California EcoRestore," respectively. California WaterFix is a proposal for new water conveyance that would be built to divert Sacramento River water into a tunnel system that would bypass the Bay-Delta (through twin tunnels following a fairly direct alignment between several intake facilities on the Sacramento River and south to the Clifton Court Forebay, a reservoir on the Bay-Delta in Contra Costa County, approximately 17 miles southwest of Stockton). California EcoRestore is an assortment of ecosystem restoration measures to improve habitat and ecosystem function to benefit fish and wildlife.

CDWR is currently completing both environmental documentation and state permitting for the California WaterFix.

The Mokelumne River, the District's primary source of water supply, is a small Delta tributary that originates in the Sierra Nevada mountains. Although the District does not deliver Bay-Delta water to customers, approximately 15 miles of the District's aqueducts cross the Bay-Delta. See also "– Water Supply Operations." The District's water rights are not directly affected by the California WaterFix and California EcoRestore proceedings because the SWRCB will only be granting permits under water rights held by the Bureau and CDWR, and the SWRCB has explicitly indicated that other water rights holders are not intended to be harmed by any permits granted to the BDCP. Nonetheless, the District submitted detailed comments on the California WaterFix and the associated draft environmental impact report/statement, with an emphasis on the following concerns:

- the District's fishery restoration efforts on the Mokelumne could be impacted by operation of the WaterFix;
- the BDCP tunnels will intersect the District's aqueduct alignment and potential future District tunnel alignment through property owned by the District, and any construction impacts will need to be mitigated;
- Operation of the WaterFix will result in degraded water quality at the Freeport Intake by increasing the frequency of reverse flows at that location, thereby impacting the District's use of that facility;
- the District's aqueducts cross the Bay-Delta and are protected by miles of levees which the District believes should continue to be maintained as part of any "Delta Fix;"
- the BDCP process will likely result in new flow requirements for the State and federal pumping facilities and the District believes that upstream water users should remain unharmed by any mitigations required to maintain Delta outflows;
- the District is interested in ensuring that its ratepayers are not required to subsidize BDCP conveyance and mitigation costs that only benefit the State and federal water contractors who receive water pumped from the South Delta.

The SWRCB is currently conducting hearings on the California WaterFix in phases which will occur throughout 2017. These hearings will inform and influence any permit provided for California WaterFix.

Another proceeding of significance to the Bay-Delta is the update to be conducted by the SWRCB on its Water Quality Control Plan ("WQCP"). On January 24, 2012, the SWRCB published a Supplemental Notice of Preparation announcing its intention to review the 2006 WQCP for the Bay-Delta. The WQCP sets flow standards and other water quality objectives that must be met to protect beneficial uses. The Notice of Preparation also provided that the SWRCB will prepare a substitute environmental document to evaluate potential modifications to current, and the establishment of new, objectives for the WQCP. The SWRCB also plans to approve a program of implementation that would modify water rights, which could include the District's Mokelumne water rights, to help meet WQCP objectives. The new or revised objectives and program of implementation will have regulatory effect when implemented. The program of implementation, which will occur over a series of years, may address flow requirements for the Mokelumne River, Sacramento River, and San Joaquin River and tributaries thereto. The SWRCB's schedule for adopting updated WQCP has initially focused on the San Joaquin River and its tributaries as Phase 1. SWRCB hearings on Phase 1 are currently underway. Phase 2 proceedings which will include the Mokelumne River are expected to commence later in 2017. The District is a party to this proceeding, which updates the current WQCP and aims to improve the

conditions for fish and the environment in the Central Valley streams and in the Delta. The District is already party to a collaborative operating agreement on the Mokelumne River that includes resource agencies. This operation is widely acknowledged by non-governmental organizations as successful. The District does not anticipate substantial changes in operations or significant impacts to water rights as a result of the proceeding.

Climate Change

Global climate change is expected to create greater uncertainty in water supplies and demands in the future. The District has developed mitigation and adaptation strategies to deal with the changing climate and its effect on water resources. In 2008, the District incorporated climate change into its Strategic Plan, and developed an adaptable and flexible plan that considers many uncertainties, including climate change, in its Water Supply Management Plan. The District also prepared a climate change monitoring and response plan to inform future water supply, water quality, and infrastructure planning.

The District's response to climate change focuses on:

- keeping current with science and assessing potential effects of climate change in the Mokelumne and East Bay watersheds;
- determining water supply and infrastructure vulnerabilities;
- monitoring and reducing greenhouse gas emissions caused by the District's operations;
- integrating climate change in strategic planning and budgeting decisions;
- advocating for new legislation and regulations that help water and wastewater agencies better respond to climate change; and
- developing adaptation and mitigation strategies as part of a water supply management program, including an ongoing emphasis on water use efficiency on both the supply-side and the demand-side.

Seismic Matters

The District's service area is in a seismically active region of the State. The Hayward Fault runs through the entire western portion of the District and the Calaveras Fault runs through the southeastern portion of the District's service area. The Concord and Mt. Diablo Thrust Faults are located close to the east side of the District's service area and the San Andreas Fault is located to the west. The Pardee and Camanche Dams, and the District's three aqueducts, that carry raw water from Pardee Reservoir to the District's service area, are in other active earthquake fault areas. Even though the District has not experienced significant earthquake-related damage to its facilities, the District's Water System and/or its water supply could be adversely affected by a major local earthquake causing damage to the District's water treatment and distribution system, the Pardee or the Camanche Dams, or the aqueducts delivering raw water to the District's service area.

In the next 30 years, there is a high probability of an earthquake occurring in the San Francisco Bay Area that is greater than magnitude 6.7, according to the United States Geological Survey. A 1994 seismic study prepared for the District examined the likely effects of earthquakes on the Hayward Fault, the Calaveras Fault and the Concord Fault at that time on the District's Water System. The study concluded that a magnitude 7.0 earthquake on the Hayward Fault would likely cause major damage to the water transmission tunnels, substantial damage to distribution pipes, damage to potable water reservoirs and operational disruptions of the District's pumping plants, rate control stations and water treatment plants. The District could also experience significant damage as a result of lesser magnitude earthquakes on the Hayward Fault or earthquakes on the Calaveras or Concord Faults. If damage to the Claremont

tunnel made it unusable, severe water rationing would be required in the western portion of the District's service area during an estimated 26-week repair period. Further, repair efforts on the District's Mokelumne Aqueducts after severe damage could take up to one year before water could be transported again to the District's terminal reservoirs. This would require stringent customer conservation, as the District's terminal reservoirs store roughly six months' supply under normal consumption patterns. A major earthquake could also have a severe adverse impact on the economy of the District's service area.

In response to the 1994 seismic study, the District initiated a multi-year Water System seismic improvement program and by 2007, the District completed a \$200 million Seismic Improvement Program (the "SIP"), which focused on improving seismic performance of the distribution system and facilities, increasing the reliability of water service post-earthquake. The SIP included upgrades to 70 reservoirs, 130 pumping plants, six water treatment plants, three maintenance yards, the Administration Building, and various electrical equipment anchorages throughout the District. It also included completion of an alternate transmission pipeline, the Southern Loop; completion of a fault-line by-pass for the primary transmission tunnel, the Claremont Tunnel; and seismic upgrades of Mokelumne Aqueduct No. 3, which is the aqueduct most relied on by the District to carry water across 15 miles of the Sacramento-San Joaquin Delta. The SIP improvements collectively are designed to allow the District to meet its service restoration goal of providing water service to 70% of its customers within ten days after a major seismic event.

Key projects completed within the SIP included:

Southern Loop Pipeline. The Oakland-Berkeley hills divide the District's service area into two water distribution areas, west-of-hills and east-of-hills. The Southern Loop pipeline is an 11-mile long emergency transmission pipeline that provides an alternate water supply route after a major earthquake. The Southern Loop connects San Ramon and Castro Valley to create a loop at the southern ends of the water distribution system. This benefits customers by providing increased system redundancy, flexibility and reliability in the District's transmission system across the Hayward Fault.

Claremont Tunnel Seismic Improvement Project. This project upgraded the Claremont Tunnel, a vital transmission facility providing service to 800,000 customers west of the Oakland-Berkeley Hills. This tunnel crosses the Hayward Fault and seismic analysis had suggested that in a magnitude 7.0 earthquake the tunnel would be damaged and most likely be out of service for up to six months for tunnel repairs, resulting in severe water rationing and reduced supplies for firefighting. The facility upgrade, completed in March 2007, consisted of a new 1,501-foot bypass tunnel to replace a vulnerable portion of the tunnel through the Hayward Fault zone as well as repair and reinforcement of other areas. The upgraded tunnel affords District customers substantially enhanced post-earthquake reliability.

Mokelumne Aqueduct No. 3 Seismic Upgrade Project. This project involved seismically retrofitting Mokelumne Aqueduct No. 3, the District's largest aqueduct, at a cost of approximately \$40 million, to improve its ability to withstand a maximum credible seismic event.

Building Structures Seismic Improvement Project. The Building Structure Seismic Improvement Project retrofitted occupied District buildings, including, but not limited to, the upgrade of the Administration Building to meet life safety performance goals and to ensure availability of facilities for post-earthquake operation.

Reservoir Seismic Upgrades Project. The Reservoir Seismic Upgrades Project addressed seismic risks to 70 distribution tanks to assure continued water storage following an earthquake and mitigate the risks to life safety that would result from tank failure. Other accomplishments include the completion of landslide mitigations and the installation of seismic isolation valves at reservoirs and valve pit roof anchorages.

Since the completion of the SIP improvements, the District continues to enhance seismic safety as part of its comprehensive capital improvement project planning process. See "– Capital Improvement Program" below. That process includes the integration of seismic upgrades into ongoing facility renewal work, as well as the completion of, and additional planned, major seismic upgrades. A \$76 million seismic upgrade to the San Pablo Reservoir dam, the largest of the local water storage reservoirs, was completed in 2010. Evaluations and/or safety reviews have also been completed at all of the District's dams. Seismic upgrades at Chabot Dam in San Leandro are ongoing and are expected to be completed in Fiscal Year 2018. In addition, as part of the current five-year capital plan, among other things, upgrades are scheduled to begin at Camanche Dam and the seismic retrofit of six reservoir towers is anticipated.

Despite the completed and continuing seismic work, in the event of significant earthquake damage to the Water System and/or the District's service area, there can be no assurance that Subordinated Water Revenues would be sufficient to pay the principal of and interest on any outstanding Water System Revenue Bonds.

Dam Licensing and Safety Issues

As part of its Water System facilities, the District manages a number of dams. These include Pardee Reservoir in the Mokelumne River watershed, its main source of water supply, Camanche Reservoir, which stores water south of Pardee Reservoir and operates to meet regulatory and environmental obligations, including flood control and for downstream users, the District's five local water supply reservoirs, and more than 20 open-cut reservoirs that hold treated water. The dams range from 8 feet to 345 feet tall and were built from the late 1800s to 1990.

Most of the District's dams are under the jurisdiction of the California Department of Water Resources' Division of Safety of Dams ("DSOD"). Pardee and Camanche Dams are also under the jurisdiction of FERC because they produce hydropower. These regulatory agencies perform independent annual dam inspections, which are the basis of annual recertification that allows continued operation of the dams. The regulators also review plans and specifications for the enlargement, alteration, repair or removal of existing dams under their respective jurisdiction. DSOD and FERC also conduct investigations of selected dams and direct the owners to do additional investigations and detailed safety evaluations when necessary.

The District has a comprehensive Dam Safety Program guided by the District's Dam Safety Program policy ("Policy 9.07"). Policy 9.07 requires management of District-owned dams and accompanying facilities to assure dam safety, structural integrity and operational safety for the protection of life, property and the environment. Engineers monitor dams using instruments, and perform monthly visual inspections and periodic reviews to ensure the safety of dams. If any areas of concern arise, repairs are planned and completed. Operations are adjusted if necessary to maintain public safety (e.g., reducing the water level to provide additional space in the reservoir or reduce water loads). In addition, the safety of each dam is reevaluated with advances in geotechnical, structural and earthquake engineering, and also if there is evidence of seepage, ongoing ground movement or other deficiency. Based on the findings of dam safety studies, over the past several decades the District has proactively made numerous capital improvements to its dams to ensure their ongoing safety. Major capital improvement projects include: seismic upgrades at San Pablo and Chabot dams; spillway upgrades, modifications or restoration work at Pardee, Chabot and Upper San Leandro dams; relief wells and drainage improvements at Camanche dam; GPS systems at Camanche and Pardee dams; concrete lining repairs at Lafayette dam; and various opencut dam reservoir replacements and improvements. See also "- Seismic Matters" and "- Capital Improvement Program."

Historically, the District's dam safety program has provided for the continual, safe operation of all of the District's dams, with annual recertification received from the regulatory agencies without interruption.

Security and Emergency Preparedness

The District has implemented a security program to provide a secure work place; maintain safe and reliable water supply and wastewater services; and to prevent or mitigate potential damage or loss of assets from internal and external threats. The District's Security Office manages the security program which includes assessment, capital, operational and coordination elements. These efforts are guided by the Security Vulnerability Assessment (SVA), water/wastewater industry experience, actual experience at District facilities, and industry standards/guidelines. The program's systems, procedures, and personnel are designed to deter, detect, delay and assess potential criminal actions.

The District has a Security Operations Control Center (the "SOCC") that is staffed seven days a week, 24 hours a day. The SOCC houses a proprietary centralized security system to monitor access controls, video cameras and recorders, and security alarms. The dispatchers at the SOCC monitor alarms, assess conditions using the security system, and dispatch security and law enforcement response as needed for alarms and reports of suspicious circumstances or crimes at District facilities. The security system maintains access controls for water and wastewater treatment, administrative and maintenance facilities, its storage yards and service centers, and the reservoirs and pumping plants in its water distribution system. District security includes an internal security staff and security contractors. Contract security officers are also used to supplement automated access controls at certain key facilities.

The District maintains an active emergency preparedness program that includes an Emergency Operations Plan (EOP) to help manage the District's critical operations during any emergency and protect people, property, and the environment. The District also maintains a Business Continuity Program Plan (BCPP) to minimize impacts to critical business functions and enhance its capability to recover operations expediently and successfully following a disruptive incident. Pursuant to state law, District employees are sworn disaster service workers, and staff is trained to use California's Standardized Emergency Management System (referred to as SEMS) and the National Incident Management System (NIMS) in response to emergencies and security incidents. As part of its Emergency Operations Plan, the District maintains two strategically located emergency operations centers and a mobile emergency command center, and has in place an emergency operations team to lead emergency response activities. The District also has adopted business continuity plans for individual work units to ensure the District's ability to respond to, and recover from, any emergency or other event that disrupts its normal business functions.

The District's cyber security program leverages a defense-in-depth approach to maintain the confidentiality, integrity, and availability of the District's business information systems, data, and water and wastewater control systems. There are dedicated IT Security staff who perform a variety of functions, including intrusion detection and prevention, incident response, monitoring for malware, vulnerabilities, and anomalous network traffic, promoting cyber security awareness to District staff, and auditing the environment to ensure that configurations remain consistent with security objectives as well as implementing new security controls as needed to stay ahead of continually evolving security threats. Third party audits and vulnerability assessments are also utilized to identify any potential areas of improvement for the overall cyber security program. The District also maintains a backup data center to facilitate recovery of critical business systems after a disaster.

Capital Improvement Program

Since Fiscal Year 2002, the District has implemented a biennial budget. In the Spring of oddnumbered years, a budget is presented to the Board for consideration for the two ensuing Fiscal Years. The District's biennial budget planning process includes a review of projected long-term (10 years or longer) facilities needs and the development of a capital expenditure forecast for the ensuing five fiscal

years. A series of master plans document the identified facilities needs by asset classes (such as pipes, reservoirs and other assets) and include assessments of the District's key facilities, taking into consideration condition assessments, operational performance and maintenance histories. Facilities in need of rehabilitation or replacement are identified and prioritized. Project scopes are also defined (for example, replacement of aging mechanical or electrical equipment, seismic upgrades, or other defined scopes).

The results of the master plans are considered during the biennial update to the Capital Improvement Program (the "CIP"). The previous CIP update was completed in 2015 in connection with the development of the District's biennial budget for Fiscal Years 2016 and 2017 and included a five-year capital expenditure forecast for Fiscal Years 2016 through 2020. Based upon this CIP forecast, the District's cash expenditures for capital improvements to the Water System for Fiscal Years 2016 through 2020 were estimated to aggregate approximately \$1.376 billion.

An updated forecast of projected CIP expenditures and projects covering the five Fiscal Years 2018 through 2022 has been developed in connection with the District's proposed biennial budget for Fiscal Years 2018 and 2019. The proposed biennial budget, including the five-year capital expenditure forecast for Fiscal Years 2018 through 2022, was presented to the Board on April 11, 2017. The biennial budget for Fiscal Years 2018 and 2019 is scheduled for consideration for adoption by the Board on [June 13,] 2017.

In the Fiscal Year 2018 through 2022 CIP, the District is continuing its focus on investments in infrastructure rehabilitation, repair and replacement. The five-year CIP cash expenditures are projected to aggregate approximately \$1.502 billion, a 9.2% percent increase over the current budget.

Table 4 summarizes the District's Fiscal Years 2018 through 2022 projected CIP cash expenditures by major category as forecast in the proposed biennial budget for Fiscal Years 2018 and 2019.

Table 4
Fiscal Years 2018-2022
Capital Improvement Program
Proposed FY 2018 and FY 2019 Biennial Budget
Forecast – Cash Expenditures
(Thousands)

Fiscal Year ended June 30

	2018	2019	2020	2021	2022	Total ⁽²⁾
Maintaining Infrastructure	\$106,836	\$118,226	\$122,116	\$130,008	\$146,621	\$ 623,806
Extensions/Improvements	37,834	23,206	35,927	54,134	37,702	188,805
Facilities, Services & Equipment	21,275	23,817	17,203	14,274	8,841	85,410
Regulatory Compliance	12,136	12,858	15,705	16,401	13,710	70,809
Water Supply	31,122	26,841	48,736	49,361	41,249	197,308
Resource Management	1,596	1,833	1,713	1,471	4,718	11,331
Water Quality	16,946	23,069	22,779	29,055	24,962	116,811
Admin. & General Expense ⁽¹⁾	40,000	40,000	41,200	42,436	43,709	207,345
Total ⁽³⁾	<u>\$267,746</u>	\$269,849	\$305,379	\$337,140	\$321,511	\$1,501,625

⁽¹⁾ Cash expenditures include spending for projects appropriated in earlier Fiscal Years.

Source: The District.

⁽²⁾ Includes overhead, construction management and other administrative costs which are allocated to individual projects upon their completion.

⁽³⁾ Totals may not add due to rounding.

The cost estimates are subject to revision in connection with the subsequent five-year CIP forecast prepared as part of the biennial budget planning process. See also "– *Construction-Related Risks*" below.

Included in the District's five-year capital plan for Fiscal Years 2018 through 2022 as reflected in the proposed biennial budget for Fiscal Years 2018 and 2019 are the major programs and projects described below:

Maintaining Infrastructure. Projects for maintaining the infrastructure further the District's objectives to improve, rehabilitate and replace aging infrastructure in a cost effective manner to ensure the sustainable delivery of reliable, high quality water service now and in the future. Work in this category focuses on pipeline projects to improve system reliability, and improvements to pumping plants and reservoirs.

The District's Pipelines/Appurtenances program is designed to maintain efficient pipeline operations by replacing appurtenances such as valves, hydrants and meters at the end of their useful life. The New Service Installations project covers installation of services for new customers and includes taps on the main, laterals, and meter sets. In Fiscal Years 2018 and 2019, an estimated 5,000 meters in each of the two years will be replaced with an integrated system of smart meters under the new Advanced Metering Infrastructure pilot project for which the District has received a grant.

The Pipeline Infrastructure Renewals project is an ongoing project to replace deteriorating water distribution pipelines, identified primarily through the evaluation of maintenance histories. In Fiscal Years 2018 through 2022, planned work includes replacing 15 miles of pipelines in Fiscal Year 2018 and ramping up to 20 miles per year by Fiscal Year 2022, in conjunction with the Pipeline Rebuild program which is aimed at implementation of more efficient replacement processes and installation methods. The Large Diameter Pipelines project is similarly an ongoing project to replace the large transmission pipes that form the backbone of the District's distribution system.

The Pipeline System Extensions program is focused on service to new customers. The workload is estimated from projections of land development activity and recent trends in water service estimates in the District's New Business Office.

The Polybutylene Lateral Replacement program previously focused on the replacement of defective polybutylene service laterals, but has been restructured to include replacing corroding copper laterals. Crews will continue the practice of replacing laterals within areas that have suffered high failure rates (planned replacements) at roughly 400 replacements per year.

In Fiscal Years 2018 through 2022, work in the Maintaining Infrastructure category also includes planning, design and construction at 31 of the District's 130 distribution pumping plants; the rehabilitation of three to four steel reservoirs per year; and the rehabilitation of open-cut reservoirs. Reservoir work may also include replacement or demolition to improve water quality and enhance worker safety.

System Extensions and Improvements. System Extensions and Improvements projects further the District's objectives to improve the infrastructure to ensure reliable, high quality service, and update and enhance the District's system modeling capabilities. Work under this category focuses on making improvements to various components of pressure zones by first studying individual pressure zones and compiling the studies into the Distribution System Master Plan. Improvements include upgrading or replacing reservoirs, pumping plants and transmission systems to optimize storage capacity and improve water quality for existing customers, and to provide service to new customers.

Pressure zone work is scheduled to take place at Almond/Fire Trail in Castro Valley; Encinal Cascade in Orinda; Summit in Berkeley; Leland in Lafayette/Walnut Creek; Maloney in El

Sobrante/Pinole/Crockett; Wildcat in Berkeley/El Cerrito; and South 30 in Oakland. Also, a new pressure zone in San Ramon is planned to serve the Faria Preserve Development and includes two new 0.5 million gallon reservoirs, a new 1.6 million gallon per day pumping plant, and the related inlet-outlet pipeline.

Facilities, Services & Equipment. Facilities, Services and Equipment projects further the District's objectives to ensure the security of the water supply and the water system; to evaluate facilities and implement corrective maintenance programs; to implement changes in technology; and to maintain a safe, well-equipped workplace. Work in this category includes making security improvements at various facilities, implementing new computer systems and replacing vehicles and equipment as needed.

The Area Service Center/Building program is comprised of various projects that improve and upgrade District buildings. The planned focus during Fiscal Years 2018 through 2022 will be on the Oakland Administration Building HVAC improvements, overhauling the elevators, and new roofing for the terraces. Other work includes completing the conversion of a property purchased in Walnut Creek into the District's new Fleet Maintenance East facility.

The Communications program is comprised of projects that replace and upgrade computer and communication systems. The Materials Management Information System that is used for purchasing and accounting purposes is expected to be replaced along with the District's Financial Information System. The two systems share data and are required to be integrated. Various modules of the Human Resources Information System are also scheduled to be replaced along with various Work Management Systems such as general work orders, and concrete and paving orders.

The Vehicle Replacements project is ongoing and involves the periodic replacement of vehicles and construction equipment as needed. In Fiscal Years 2018 and 2019, the necessary equipment is expected to be purchased to outfit additional staff and decrease the reliance on fully manned and operated contracts.

Regulatory Compliance. Regulatory Compliance projects further the District's objectives to operate and maintain facilities to meet all air, land and water discharge requirements; implement preventative and corrective maintenance programs; and improve the infrastructure to ensure delivery of reliable, high quality service. The work in this category focuses on upgrades to dams, reservoir outlet towers, clearwells and spillways to meet flood and earthquake safety requirements.

Evaluations and/or safety reviews have been completed at all of the District's dams. Seismic upgrades at Chabot Dam in San Leandro are expected to be completed in Fiscal Year 2018. Upgrades at Camanche Dam are planned to begin in Fiscal Year 2018. The seismic retrofit of six reservoir towers is also scheduled to be undertaken through Fiscal Year 2022.

Trench spoils material is generated from pipeline installations and repairs, and is stockpiled at three disposal sites for future reuse or disposal. The sites are managed in accordance with regulatory requirements, and the spoils are removed periodically. Regulatory Compliance work includes updating the 5-Year Master Plan and off-haul of the Briones site in Fiscal Years 2019 and 2020.

Water Supply. Water supply projects further the District's objectives to ensure a reliable, high quality water supply for the future; to preserve current entitlements and augment the District's water supply; and to reduce the demand for potable water through conservation and recycling. The near-term focus of work in this category is on maintaining the raw water aqueducts and water recycling projects.

The District's Aqueducts program consists of evaluating and improving the raw water aqueduct system. Various portions of Mokelumne Aqueduct No. 1 are planned to be recoated to provide protection from the corrosive Bay-Delta environment. The program also includes replacing the deteriorated cement lining in the Mokelumne Aqueducts that protect the steel pipeline from internal corrosion. Work includes

pilot testing of lining materials, and a comprehensive internal inspection of 75 miles of the aqueducts, followed by design and construction of the aqueduct relining. In addition, the District expects to continue to monitor and retrofit the temperature anchors on Mokelumne Aqueduct No. 1, and to upgrade the Briones Center and the Walnut Creek Raw Water Pumping Plant.

The Water Supply Management program helps to guide decisions for providing a reliable, high quality water supply and meet growing demand though the year 2040, and includes water conservation and recycled water as key elements to offset demand for potable water. Planned water conservation projects are focused on services that allow customers to manage their water use, outdoor landscape water budgets and incentives, and Advanced Metering Infrastructure.

The San Ramon Valley Recycled Water program is a joint project with DSRSD to supply recycled water to portions of San Ramon, Danville, Blackhawk and surrounding areas. See "– Water Supply – Water Recycling" above. Expansion of the tertiary treatment facilities from 9.7 MGD to 16.5 MGD is scheduled for completion in Fiscal Year 2019 to provide capacity as the distribution system is expanded and additional customers are connected.

Resource Management. Resource Management projects further the District's objectives to manage the Mokelumne and East Bay watersheds to ensure a high quality water supply; protect natural resources; provide public access and recreational opportunities compatible with water quality and natural resource protection; and prepare plans to protect natural resources and ensure drinking water quality. Work under this strategy focuses on making improvements to recreational facilities at Camanche, Pardee and East Bay Reservoirs, and updating habitat and watershed management plans.

Planned projects include the periodic replacements and upgrades to the trails, roads, parking lots, fuel docks, launch ramps, docks, berths, stores, picnic areas, visitor centers, campgrounds, and bathroom and shower buildings. In addition, watershed projects include habitat and pond restoration, hazardous tree removal, boundary fence replacement, upgrades at the Orinda Watershed Headquarters and the Mokelumne Watershed Headquarters, as well as water and sewer system upgrades.

Water Quality. Water quality projects further the District's objectives to operate and maintain facilities to surpass federal and state drinking water regulations, and to make system improvements that meet or surpass regulatory requirements. Work in this category is focused on making improvements to water treatment plants to improve water quality. In Fiscal Years 2018 through 2022, work is planned at five water treatment plants and includes the rehabilitation and renovation of systems such as filters, chemicals, air scours, solids handling and removal, wash water reclamation, oxygenation/mixing, controls, and pretreatment.

Other Potential Projects. The District also has appropriated funds to meet unanticipated capital needs and for projects that are seeking grant funding. These funds will be used to pay for capital expenditures such as replacements or repairs to facilities and equipment and to fund new or accelerate existing projects in between budget cycles. Funds will also be available for grant funded projects that normally require the District to advance the costs and then apply for reimbursements. The District also has contingency funds in its capital budget for costs related to the potential implementation of new computer systems.

The District's estimated funding sources for its CIP for Fiscal Years 2018 through 2022 as reflected in the proposed biennial budget for Fiscal Years 2018 and 2019 are set forth in Table 5:

Table 5 Fiscal Years 2018-2022 Proposed FY 2018 and FY 2019 Biennial Budget Sources of Funds for Capital Improvement Program Expenditures

Funding Sources	(Millions)		
Revenues	\$ 624.2		
Bond Proceeds	782.6		
Commercial Paper Proceeds	0.0		
Advances, Contributions and Grants	94.8		
Total	\$1,501.6		

Construction-Related Risks. Construction projects for the Water System are subject to ordinary construction risks and delays applicable to projects of their kind, including but not limited to (i) inclement weather affecting contractor performance and timeliness of completion, which could affect the costs and availability of, or delivery schedule for, equipment, components, materials, labor or subcontractors; (ii) contractor claims or nonperformance; (iii) failure of contractors to execute within contract price; (iv) work stoppages or slowdowns; (v) failure of contractors to meet schedule terms; (vi) errors or omissions in contract documents requiring change orders; (vii) the occurrence of a major seismic event; or (viii) unanticipated project site conditions, including the discovery of hazardous materials on the site or other issues regarding compliance with applicable environmental standards, and other natural hazards or seismic events encountered during construction. In addition, Water System construction projects may require scheduling system shutdowns to avoid impacting water deliveries and many shutdown windows are inflexible. Increased construction costs or delays could impact the Water System's financial condition in general and the implementation of its CIP in particular. Construction bids may also be higher than anticipated for budgeting purposes.

WATER SYSTEM FINANCES

Basis of Accounting

The District reports operations on a Fiscal Year basis (currently July 1 through June 30). Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises, where the costs of providing goods and services to the general public are financed or recovered primarily through user charges. Enterprise funds are accounted for using the accrual basis of accounting. The accounting policies of the District conform to generally accepted accounting principles for municipal water and wastewater utilities. The accounts are maintained substantially in accordance with the Uniform System of Accounts prescribed for investor-owned and major municipally-owned water and wastewater utilities.

Sources of Funds

The Water System's principal source of revenues is water sales. In Fiscal Year 2016, approximately 79.7% of the Water System's \$528.5 million in total sources of funds was provided from water sales. Sources of funds other than water sales include taxes, income from the sale of energy from the District's hydroelectric power plants, investment income, and grants and contributions in aid of construction. In Fiscal Year 2016, the District's share of the countywide 1% *ad valorem* property tax levy contributed approximately 5.6%, or \$29.9 million of the total sources of funds. In Fiscal Year 2016, the Water System's hydroelectric power plants produced power revenues of approximately \$3.5 million and the District's income on investments was approximately \$2.2 million. Contributions in aid of construction totaled \$60.8 million, including \$39.3 million of system capacity charges collected during such year, \$17.0 million of contributions for facility relocations, main extensions and service installations, \$4.4

million of grants and other reimbursements, and \$0.4 million of seismic surcharge collections for amounts billed in the preceding Fiscal Year prior to the sunset of the seismic surcharge effective July 1, 2015.

Table 6 sets forth the District's Water System sources of funds for the five most recent Fiscal Years ended June 30, 2016. The sources of funds in Table 6 include certain funds which do not constitute Subordinated Water Revenues for purposes of funds pledged under 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. See "- Property Tax Revenues." 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. See "SECURITY FOR THE SERIES 2017 BONDS - Pledge of Subordinated Water Revenues." Comparative summaries of the Water System's historical operating results and debt service coverage ratio for each of the last five Fiscal Years appear in Table 18.

Table 6
WATER SYSTEM SOURCES OF FUNDS
Five Fiscal Years Ended June 30, 2016
(Millions)

_	Fiscal Year Ending June 30					
	2012	2013	2014	2015	2016	
Operating Revenue and Other Income:						
Water sales	\$306.2	\$336.1	\$367.5	\$362.1	\$421.2	
Power sales	4.6	3.6	1.4	2.2	3.5	
Interest ⁽¹⁾	5.5	3.7	1.7	3.5	2.2	
Taxes	23.4	26.4	25.5	27.9	29.9	
Other ⁽²⁾	16.2	12.8	19.9	<u> 15.3</u>	14.0	
Total Operating Revenue and						
Other Income	<u>\$355.9</u>	<u>\$382.6</u>	<u>\$416.0</u>	<u>\$411.0</u>	<u>\$470.8</u>	
Capital Contributions:						
Seismic Surcharge ⁽³⁾	\$ 19.2	\$ 20.6	\$ 22.6	\$ 22.2	\$0.1	
System Capacity Charge ⁽⁴⁾	16.1	22.7	20.4	29.7	39.3	
Earned contributions on construction ⁽⁵⁾	5.8	4.5	5.2	17.1	17.0	
Grants and reimbursements	4.1	8.0	0.8	2.5	4.4	
Total Contributions	<u>\$ 45.2</u>	<u>\$ 55.8</u>	\$ 49.0	<u>\$ 71.5</u>	<u>\$60.8</u>	
Total	<u>\$401.1</u>	<u>\$438.4</u>	<u>\$465.0</u>	<u>\$482.5</u>	<u>\$528.5</u>	

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

Source: The District.

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.

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. However, a small amount of Fiscal Year 2015 collections were made in Fiscal Year 2016.

⁽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.

Water Sales Revenues

Water sales to residential accounts provide approximately 53.8% of the District's water sales revenues. Approximately 89.2% of the District's accounts are residential, but because residential consumption per account is lower than for other customer types, residential sales account for only 49.1% of consumption. The ten largest customers of the District's Water System consumed approximately 15.1% of the District's water in Fiscal Year 2016 and accounted for approximately 11.1% of water sales revenues. The largest account consumed 7.0% of the District's water sold and contributed 4.3% of total water sales revenues and the smallest of the ten largest accounts consumed 0.3% of the total water sold and accounted for approximately 0.2% of water sales revenues.

Table 7 sets forth water sales revenues, consumption and number of connections by customer type for the Fiscal Year ended June 30, 2016.

Table 7
WATER SALES REVENUES, CONSUMPTION AND NUMBER
OF CONNECTIONS BY CUSTOMER TYPE
Fiscal Year Ended June 30, 2016

Type of Customer	Sales Revenues ⁽¹⁾	Percent of Revenues	Consumption (MGD)	Percent of Consumption	Number of Connections ⁽²⁾	Percent of Connections
Residential	\$226,701,598	53.8%	62.8	49.1%	347,238	89.2%
Commercial	141,000,937	33.5	43.2	33.8	38,201	9.8
Industrial	36,529,423	8.7	16.6	12.9	1,459	0.4
Other ⁽³⁾	17,007,687	4.0	5.4	4.2	2,403	0.6
Total ⁽⁴⁾	<u>\$421,239,645</u>	100.0%	<u>128.0</u>	<u>100.0%</u>	<u>389,301</u>	<u>100.0%</u>

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

Source: The District.

Rates and Charges

The District's rates and rate structure are established by the District's Board after a public hearing process, and are not subject to regulation by any other agency. Under California law, the imposition of, or any increase in, a property-related fee or charge, including fees and charges for ongoing water service, is subject to specified procedural requirements (including notice, hearing and protest procedures). In addition, pursuant to California law all such property-related fees and charges meet certain substantive standards, including that such fees and charges must be proportional to the cost of providing service. See "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS – Proposition 218" for a discussion of the procedural and substantive requirements to which the District's rate increases are subject.

From Fiscal Year 2013 through Fiscal Year 2017, residential rates for water service have increased by an average of approximately 7.9% 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 8.1%. The District's most recent increases in water service rates and charges included the adoption on June 9, 2015 of overall average rate increases (including meter, volume, elevation charges, non-potable (recycled) water and private fire service) of 8.0% for Fiscal Year 2016 and 7.0% for Fiscal Year 2017.

⁽²⁾ Connections as of June 30, 2016.

⁽³⁾ Includes public agencies, recycled water customers and late charges.

⁽⁴⁾ Totals may not add due to rounding.

In conjunction with the Board's consideration for adoption of the District's proposed biennial budget for Fiscal Years 2018 and 2019, the Board will consider for adoption proposed system-wide rate increases of 9.25% and 9.00% for Fiscal Years 2018 and 2019, respectively, following a public hearing on the proposed rate increases to be held on such date.

The following table sets forth the average residential and overall average rate increases enacted by the District for Fiscal Years 2013 through 2017 and the proposed average residential rate increases for Fiscal Years 2018 and 2019:

Table 8
WATER RATE INCREASES

Average Residential Rate Increase	Overall Average Rate Increase ⁽¹⁾
6.00%	6.00%
9.79	9.75
9.43	9.50
$7.35^{(2)}$	$8.00^{(2)}$
$7.02^{(3)}$	$7.00^{(3)}$
$9.21^{(4)}$	$9.25^{(4)}$
$8.99^{(4)}$	$9.00^{(4)}$
	6.00% 9.79 9.43 7.35 ⁽²⁾ 7.02 ⁽³⁾ 9.21 ⁽⁴⁾

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

Source: The District.

The District's water rate structure is based on a cost of service methodology.

The District updates the Water System's rates and charges biennially in conjunction with the development of its budget. The rates and charges are designed to cover the expenditures identified in the biennial budget for the two ensuing Fiscal Years and to meet identified Board policy goals. In connection with the development of proposed rates and charges for Fiscal Years 2016 and 2017, the District completed a cost of service study aimed toward ensuring that its rates and charges equitably and appropriately recover costs. In addition, during the course of the year preceding the adoption of rates and charges for Fiscal Years 2016 and 2017, the District has held a series of public workshops relating to long-term strategies designed to assure its continued financial stability. One of the goals of these activities was the development of a long-term water shortage strategy.

As a result of this planning process, including the cost of service study, a number of changes to the Water System's rates and charges were approved by the Board on June 9, 2015. The adopted revisions to the Water System schedule of rates and charges became effective on bills issued on or after July 1, 2015 for Fiscal Year 2016 and became effective on bills issued on or after July 1, 2016 for Fiscal Year 2017. The adopted revisions included a number of elements, among them: (i) overall average rate increases (including meter, volume, elevation charges, non-potable (recycled) water and private fire

⁽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⁾ Adopted overall average rate increase that took effect on bills issued on and after July 1, 2016. Excludes drought surcharge.

⁽⁴⁾ A public hearing on the proposed rate increases for Fiscal Years 2018 and 2019 is scheduled for [June 13], 2017 at which time the Board will consider the proposed Fiscal Year 2018 and 2019 rate increases for adoption. If adopted, the proposed rate increase for Fiscal Year 2018 would be effective on bills issued on or after July 1, 2017 and the proposed rate increase for Fiscal Year 2019 would be effective on bills issued on or after July 1, 2018.

service) as described above; (ii) certain adjustments to individual meter, volume, elevation, non-potable and private fire service rates and charges designed to implement the results of the updated cost of service study completed by the District; (iii) the sunset of the District's seismic surcharge which had been imposed on each customer's water bill since May 1996, which sunset was approved following the determination by the District that seismic surcharge revenues collected to date are sufficient to cover the remaining costs of construction of the recommended seismic improvements undertaken as part of the SIP; and (iv) implementation of a new system of drought surcharges (hereinafter discussed).

Prior to the adopted revisions to the Water System schedule of rates and charges in 2015, approximately 70% of the District's rate revenue was generated from volumetric-based charges and approximately 30% of the District's rate revenue was generated from fixed charges. Taking into account the potential effects on the rate structure resulting from the sunset of the District's seismic surcharge, the revised rate structure and adopted schedule of rates and charges were designed to maintain a similar ratio of approximately 70%/30% between volumetric charge revenues and fixed charge revenues.

The District's rate structure consists of two components: a monthly service charge and a commodity charge for water delivered. With the exception of single family residential customers, commodity charges for water delivered are based on a uniform volume rate. Single family residential customers are billed on a three-tier inclining block rate structure.

Table 9 shows the rate schedule effective July 1, 2016 for Fiscal Year 2017 and the proposed rate schedule to be effective July 1, 2017 for Fiscal Year 2018, if approved. The monthly water bill for a typical residential account consuming 8000 cubic feet (8 Ccf or 5,980 gallons) per month, excluding any drought surcharge, is currently \$47.15. The District has previously used 10 Ccf as the typical residential account monthly consumption but is now using 8 Ccf as the typical residential account monthly consumption to reflect the current trend of lower water use. As noted above, the District's proposed rates for Fiscal Year 2018, if adopted, would become effective on July 1, 2017, and represent an average increase of 9.2% for residential customers from Fiscal Year 2017 rates. See also Table 19 under "– Projected Operating Results" for a description of projected future rate increases.

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Table 9 WATER SYSTEM RATES AND CHARGES

Service Charge

	Effective July 1, 2016	Proposed July 1, 2017
Meter Size	Per Month	Per Month
5/8-inch and ³ / ₄ -inch	\$20.69	\$22.60
1-inch	31.24	34.13
1 ½-inch	57.65	62.98
2-inch	89.32	97.58
Over 2-inch	Various	Various

Charge for Water Delivered

	Effective July 1, 2016	Proposed July 1, 2017
Rate Class	Per Hundred Cubic Feet (Ccf)	Per Hundred Cubic Feet (Ccf)
Basic Rate – Single Family ⁽¹⁾	\$3.16	\$3.45
Basic Rate – Multi Family	4.46	4.87
Basic Rate – Other	4.44	4.85
Elevation Band Surcharges ⁽²⁾ –		
Band 2: Pressure Zones 2 through 5	0.64	0.70
Band 3: Pressure Zones 6 and higher	1.33	1.45

Applies to first 172 gallons per day (7 Ccf) for single family residential customers. Additional monthly consumption by residential customers is billed at \$4.34 per Ccf for consumption between 173 and 393 gallons per day (16 Ccf), and \$5.74 for all water used in excess of 393 gallons per day. For a household using 8 Ccf in Fiscal Year 2017, the water usage charge for the first 7 Ccf at the first tier rate of \$3.16 per Ccf would be \$22.12 and the water usage charge for the additional 1 Ccf at the second tier rate of \$4.34 per Ccf would be \$4.34, for a total charge for water delivered of \$26.46; the monthly service charge would be \$20.69, resulting in a total monthly bill of \$47.15.

Source: The District.

Drought Surcharges

On December 9, 2014, the Board approved the design structure for a potential new system of drought surcharges using drought stages corresponding to the District's Drought Management Program (DMP) Guidelines (see "THE WATER SYSTEM – Drought Response Actions"). The adopted Fiscal Year 2016 and 2017 rates and charges included drought surcharges for four stages of drought. The adopted drought surcharges 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 surcharges do not apply to non-potable water. The District's adopted schedule of drought surcharges is set forth below.

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.

Staged System of Drought Surcharges

Drought Stage:	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	\geq 65,000 acre-feet
Rates and Charges	Normal rates	Normal rates	Normal rates	Normal rates	Normal rates
			+ Up to 8% surcharge	+ Up to 20% surcharge	Up to 25% surcharge

The District's proposed rates and charges for Fiscal Years 2018 and 2019 include maintenance of the currently adopted system of drought surcharges.

The adopted system of drought rates includes a supersaver recognition program to be applicable to the single family residential customer class. Supersaver recognition is to be given to single family households in drought stages 3 and 4 that use less than 100 gallons per day (gpd)/per month, or who are saving 10% more than the District's designated conservation goal at that stage.

The adopted system of drought rates also includes a penalty on excessive water use in stages 3 and 4 to be applicable to the single family residential customer class. The penalty is \$2 per Ccf for monthly use over 60 Ccf per month in a drought declared to be stage 3 by the Board and for use over 40 Ccf per month in a drought declared to be stage 4 by the Board. The water use penalty was adopted by ordinance approved by the Board on April 28, 2015.

During Fiscal Year 2016, as a result of the declaration on April 14, 2015 by the District Board of Stage 4 "Critical" Drought within the District's service area, the applicable drought surcharges for a Stage 4 drought were in effect for District customers. Commencing with bills issued on and after July 1, 2016, there are no drought surcharges currently in effect for District customers. See "THE WATER SYSTEM – Drought Response Actions."

Comparison of Annual Water Service Charges

Table 10 shows comparative average annual water service charges by various Bay Area water agencies for a typical residential account with a 5/8-inch meter using 800 cubic feet of water (5,980 gallons) per month. Charges are for the minimum cost zone or area served by the agency based on rates effective as of July 1, 2016.

Table 10 COMPARATIVE ANNUAL RESIDENTIAL WATER CHARGES For 10 Ccf/Month and 5/8" Meter Effective Rates as of July 1, 2017⁽¹⁾

Average Annual Household Water Service Charge
\$927
861
734
717
688
685
668
658
637
632
608
556
467

⁽¹⁾ Reflects charges based on rates applicable as of July 1, 2017 regardless of characterization as base rates, drought rates or other characterization.

Source: The District.

Billing and Collection Procedures

All water service customers are billed directly by the District bimonthly, with the exception of approximately 1,000 accounts consisting of the largest users in the District, which are billed monthly. Billing is staggered throughout the billing cycle by geographic location within the District. Service may be discontinued if an overdue account is not paid after appropriate customer notification. The District considers its rates of payment delinquency, service discontinuance for non-payment, and write-offs for uncollectible accounts to be low by water industry standards for urban areas. Following retention of a new collection vendor and implementation of a new delinquent payment process, write-offs for uncollectible revenues have been further reduced. Write-offs for uncollectible accounts for the last five Fiscal Years are set forth in Table 11.

Table 11
WATER SALES UNCOLLECTIBLE REVENUES
Last Five Fiscal Years

Fiscal Year Ended June 30	Uncollectible Revenues	Percent of Gross Billings		
2012	\$1,344,226	0.44%		
2013	1,898,610	0.57		
2014	1,638,731	0.42		
2015	1,257,822	0.33		
2016	971,828	0.23		

Source: The District.

⁽²⁾ Proposed rates applicable as of July 1, 2017.

System Capacity Charge

The District's system capacity charge ("SCC") is designed to recover from new accounts a portion of the costs of existing facilities, as well as the costs of additional facilities (primarily water supply projects) to be constructed in the future to provide water service to new customers based on land use plans. Under the existing SCC policy, funds collected from SCCs are applied toward the costs of the District's capital program for such facilities, and in the case of future water supply projects, to reimburse the Water System for the payment of debt service on Water System Revenue Bonds issued to finance such facilities.

The SCC includes both a "buy-in" portion and a "future water supply" portion. The "buy-in" portion includes the costs of existing District storage, treatment and distribution facilities, as well as existing water supply facilities (including reservoirs and aqueducts) and administration facilities. As the "buy-in" portion of the SCC, new accounts are charged for their share of the costs of these existing District facilities (escalated to current dollars). The "future water supply" portion of SCC receipts is collected to fund the costs of additional facilities required to serve new accounts. The "future water supply" portion of SCC receipts when collected are deposited in the Future Water Supply Fund, a segregated account of the Revenue Fund, to be applied to offset debt service costs attributable to SCC-related capital facilities. In Fiscal Year 2016, SCCs collected totaled \$39.3 million (the "buy-in" portion of \$27.7 million and the "future water supply portion" of \$11.6 million).

For purposes of the Indenture, the District has included in the SCC Revenues as shown in Table 18 for Fiscal Years 2012 through 2015, the "buy-in" portion of SCC charges when collected and the debt service repayment component of the "future water supply" portion of SCC charges when applied from the Future Water Supply Fund to offset debt service costs attributable to SCC-related capital facilities. Beginning with Fiscal Year 2016, all SCC Revenues are treated as Water Revenues when collected for purposes of the Indenture.

For financial statement purposes, however, the District has elected to account for both the "buy-in" portion of SCC charges when collected and the debt service repayment component of the SCC when applied as part of capital contributions. As a result, no SCC amounts are reflected as operating revenues in the District's financial statements.

Property Tax Revenues

The District's share of the countywide 1% *ad valorem* property tax levy has provided approximately 5% to 6% of the revenues of the Water System in each of the past five Fiscal Years for the District. The District's share of the countywide 1% *ad valorem* property tax is not pledged as a source of payment for the Water System Revenue Bonds, although such amounts are applied to pay Water Operation and Maintenance Costs in accordance with the Indenture.

Table 12 shows a five-year record of assessed valuations, secured roll levies and delinquencies for the taxable property included within the District. Assessed valuations are expressed by county assessors as "full cash value" as defined by Article XIIIA of the State Constitution. The tax levy shown is the District's allocated share of the maximum *ad valorem* tax levy by each county of 1% of full cash value.

Pursuant to California Revenue and Taxation Code Sections 4701 *et seq.*, Contra Costa County and Alameda County each maintain a reserve fund for the purpose of guaranteeing 100% of the secured levies of the electing governmental jurisdictions for which such county collects taxes (commonly referred to as the "Teeter Plan"). The District has elected to participate in Contra Costa County's Teeter Plan program but has elected not to participate in Alameda County's Teeter Plan program. Consequently, the

District is exposed to the effect of delinquencies in collections only for property located in Alameda County.

A Teeter Plan remains in effect unless the board of supervisors of the county that has established a Teeter Plan orders its discontinuance or unless, prior to the commencement of any fiscal year of such county, such board of supervisors receives a petition for its discontinuance joined in by a resolution adopted by at least two-thirds of the participating revenue districts within the county, in which event the such board of supervisors is to order the discontinuance of the Teeter Plan effective at the commencement of the subsequent fiscal year. If the Board of Supervisors of the Contra Costa County, or in the event that the District elects to participate in Alameda County's Teeter Plan, the Board of Supervisors of Alameda County, is to order the discontinuance of the Teeter Plan, only those secured property taxes actually collected would be allocated to political subdivisions (including the District) for which such county acts as the tax-levying or tax-collecting agency.

Table 12 TAXABLE PROPERTY WITHIN THE WATER SYSTEM Assessed Valuation and Tax Collection Record

Fiscal Year Ending June 30

	1 isom 1 cm Enang white 50								
	<u> 2012</u>		<u> 2013</u>		<u>2014</u>		<u> 2015</u>		<u> 2016</u>
\$ 94	4,461,089,218	\$ 98	3,956,612,301	\$103	3,645,001,482	\$11	2,041,019,464	\$119	9,325,397,941
8	1,219,124,927	83	3,087,433,870	89	9,671,760,809	9	6,462,650,792	102	2,552,109,724
\$173	5,680,214,145	\$182	2,044,046,171	\$193	3,316,762,291	\$20	8,503,670,256	\$221	1,877,507,665
\$	12,463,643	\$	14,417,608	\$	13,669,336	\$	14,943,333	\$	16,136,648
	10,921,960		12,018,366		11,823,055		12,978,787		13,732,785
\$	23,385,603	\$	26,435,974	\$	25,492,391	\$	27,922,120	\$	29,869,433
\$	353,191	\$	260,612	\$	211,831	\$	198,418	\$	239,980
	1.51%		0.99%		0.83%		0.71%		0.80%
	\$ \$175 \$ \$	\$ 94,461,089,218 81,219,124,927 \$175,680,214,145 \$ 12,463,643 10,921,960 \$ 23,385,603 \$ 353,191	\$ 94,461,089,218 \$ 98 81,219,124,927 83 \$175,680,214,145 \$183 \$ 12,463,643 \$ 10,921,960 \$ \$ 23,385,603 \$ \$ 353,191 \$	2012 2013 \$ 94,461,089,218 \$ 98,956,612,301 81,219,124,927 83,087,433,870 \$175,680,214,145 \$182,044,046,171 \$ 12,463,643 \$ 14,417,608 10,921,960 12,018,366 \$ 23,385,603 \$ 26,435,974 \$ 353,191 \$ 260,612	2012 2013 \$ 94,461,089,218 \$ 98,956,612,301 \$103 81,219,124,927 83,087,433,870 89 \$175,680,214,145 \$182,044,046,171 \$193 \$ 12,463,643 \$ 14,417,608 \$ \$ 10,921,960 \$ 12,018,366 \$ \$ 23,385,603 \$ 26,435,974 \$ \$ 353,191 \$ 260,612 \$	2012 2013 2014 \$ 94,461,089,218 \$ 98,956,612,301 \$103,645,001,482 81,219,124,927 83,087,433,870 89,671,760,809 \$175,680,214,145 \$182,044,046,171 \$193,316,762,291 \$ 12,463,643 \$ 14,417,608 \$ 13,669,336 10,921,960 12,018,366 11,823,055 \$ 23,385,603 \$ 26,435,974 \$ 25,492,391 \$ 353,191 \$ 260,612 \$ 211,831	2012 2013 2014 \$ 94,461,089,218 \$ 98,956,612,301 \$103,645,001,482 \$11.823,055 \$ 81,219,124,927 \$83,087,433,870 \$89,671,760,809 9 \$175,680,214,145 \$182,044,046,171 \$193,316,762,291 \$20 \$ 12,463,643 \$ 14,417,608 \$ 13,669,336 \$ \$ 10,921,960 \$ 12,018,366 \$ 11,823,055 \$ \$ 23,385,603 \$ 26,435,974 \$ 25,492,391 \$ \$ 353,191 \$ 260,612 \$ 211,831 \$	2012 2013 2014 2015 \$ 94,461,089,218 \$ 98,956,612,301 \$103,645,001,482 \$112,041,019,464 81,219,124,927 83,087,433,870 89,671,760,809 96,462,650,792 \$175,680,214,145 \$182,044,046,171 \$193,316,762,291 \$208,503,670,256 \$ 12,463,643 \$ 14,417,608 \$ 13,669,336 \$ 14,943,333 \$ 10,921,960 \$ 12,018,366 \$ 11,823,055 \$ 12,978,787 \$ 23,385,603 \$ 26,435,974 \$ 25,492,391 \$ 27,922,120 \$ 353,191 \$ 260,612 \$ 211,831 \$ 198,418	2012 2013 2014 2015 \$ 94,461,089,218 \$ 98,956,612,301 \$103,645,001,482 \$112,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,019,464 \$119,041,049,049 \$10,042,050,079 \$10,042,099 \$10,042,099 \$208,503,670,256 \$221,043,049 \$12,0463,643 \$14,041,008 \$13,669,336 \$14,943,333 \$14,943,333 \$14,041,009 \$12,018,366 \$11,823,055 \$12,978,787 \$12,978,787 \$12,3385,603 \$26,435,974 \$25,492,391 \$27,922,120 \$12,018,366 \$12,018,366 \$12,018,366 \$13,049,209 \$12,018,366 <t< td=""></t<>

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.

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

Historically, from time to time, legislation was enacted as part of the State budget to provide for the reallocation of local governments' shares of the countywide 1% ad valorem tax, including by shifting a portion of the property tax revenues collected by the counties from special districts (such as the District) to school districts or other governmental entities. Subsequently, certain amendments to the State Constitution have been enacted to reduce the State Legislature's authority over local revenue sources by placing restrictions on, among other things, the State's access to local governments' property tax revenues. For example, on November 2, 2004 voters within the State approved Proposition 1A, which prevented the State from reducing local government's share of the 1% ad valorem property tax below levels in effect as of November 3, 2004, except in the case of fiscal emergency. Proposition 1A provided

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Minor differences in assessed valuation numbers from amounts previously reported can occur from time to time due to a change in source data used.

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

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

that in the case of fiscal emergency, the State could borrow up to 8% of local property tax revenues to be repaid within three years. Following the exercise by the State of its authority to borrow such local property tax revenues as part of the 2009-10 State budget act, on November 2, 2010, voters within the State approved Proposition 22, which prohibits any future action by the State Legislature to take, reallocate or borrow money raised by local governments for local purposes, and prohibits changes in the allocation of property taxes among local governments to aid State finances or pay for State mandates. Proposition 22 thereby effectively repealed the provisions of Proposition 1A allowing the State to borrow local property tax revenues from local governments, and prohibits any such future borrowing.

There can be no assurances that legislation or voter initiatives enacted or approved in the future will not reduce or eliminate the District's share of the 1% countywide *ad valorem* property tax revenues. See also "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS."

The tax rolls for property located within the District's Water System service area for the Fiscal Year ended June 30, 2016, aggregated a total assessed valuation of approximately \$221.9 billion, including redevelopment project areas incremental valuations of which the taxes payable were due to the redevelopment agency. In 2011, the State enacted legislation commonly referred to as "AB1X 26," which required the dissolution of California redevelopment agencies and the dissolution and winding up of the operations of those agencies, which dissolution occurred on February 1, 2012. AB1X 26 provides a framework for the management of the remaining obligations of the dissolved redevelopment agencies by their respective successor agencies and oversight boards to oversee those successor agencies. Pursuant to AB1X 26, tax increment will continue to flow to the payment of "enforceable obligations" (such as tax allocation bonds) of the dissolved redevelopment agencies.

Power Sales Revenues

The District operates hydropower plants at Pardee and Camanche Reservoirs. These plants generate 185 million kilowatt hours of electricity in normal rainfall years. Commencing July 1, 2015, the energy is being sold to Marin Clean Energy ("MCE") under a 10-year power purchase agreement which expires on June 30, 2025. This power purchase agreement includes the sale of up to 120 million kilowatt hours of hydroelectric energy, and renewable energy credits ("RECs") (i.e., credits, benefits, offsets, reductions or allowances resulting from the generation of renewable energy). Purchases of generation and RECs in excess of 120 million kilowatt hours annually will be at MCE's option. Generation greater than 120 million kilowatt hours annually and not sold to MCE may be sold to another entity. The District negotiated a five-year power purchase option agreement with Shell Energy for the sale of the additional generation and RECs not purchased by MCE as well as the sale of Resource Adequacy (Capacity). This agreement provides the District with an alternate purchase of hydroelectricity (and related RECs) produced at its Pardee and Camanche Reservoirs. Annual revenues to the District from power sales have ranged from approximately \$1.4 million to \$4.6 million over the last five fiscal years. Power sales revenues were reduced during the drought due to less available runoff. Revenues from power sales vary depending on power prices and the volume of water available for release from the reservoirs. In its biennial budget for Fiscal Years 2016 and 2017, the District budgeted \$3.5 million annually in hydropower revenue based upon an assumed average rainfall year. Power sales revenues for Fiscal Year 2016 totaled \$3.5 million.

Developer Contributions

Cash contributions for main extension and other facilities to serve new customers depend on the level of development. In addition to collection of its SCC (as described under "System Capacity Charge" above), District policy requires new applicants for service to pay direct charges for mains, hydrants, and services necessary to serve them. In Fiscal Year 2016, developer contributions collected for facility

relocation charges, mains and hydrants and service installations totaled \$17.0 million. These developer contributions are treated as capital contributions and are not included in Subordinated Water Revenues for purposes of the Indenture.

Grants and Other Reimbursements

Grants and reimbursements are received for specific projects. In Fiscal Year 2016, the District collected approximately \$4.4 million in grants and other reimbursements for the Water System. Approximately \$3.2 million in grants and reimbursements is estimated to be received by the District in Fiscal Year 2017. Grant receipts and other reimbursements budgeted for Fiscal Years 2018 and 2019 are \$1.7 million and \$1.5 million, respectively. Grants and other reimbursements are treated as capital contributions and are not included in Subordinated Water Revenues for purposes of the Indenture.

Operation and Maintenance Costs

The primary component of the District's Operation and Maintenance Costs is labor costs, including wages, salaries and benefits. Operation and Maintenance Costs also include materials, supplies and services such as costs of chemicals for water treatment and electrical power, costs of purchased water such as water delivered to the District under the Long-Term Renewal CVP Project and/or water purchased by the District under other negotiated water purchase agreements, when applicable, and other general and administrative expenses.

Outstanding Debt

Table 13 shows the District's Water System debt outstanding as of May 1, 2017. As provided in the Municipal Utility District Act, prior to the exercise by the District of its power to issue Water System revenue bonds, a preliminary resolution is adopted by the Board declaring its intention to authorize the issuance of revenue bonds and specifying, among other things, the maximum principal amount of bonds then proposed to be issued (excluding refunding bonds) pursuant to such resolution. As of May 1, 2017 (prior to the Series 2017 Bonds to be issued), the District has \$995,280,000 of authorized but unissued Water System revenue bonds, including (i) \$342,280,000 remaining authorized but unissued Water System revenue bonds under Resolution No. 33606-07 adopted on June 12, 2007, pursuant to which the Board declared its intention to authorize the issuance of up to \$1,100,000,000 of Water System revenue bonds, to be issued from time to time in one or more series, and (ii) \$653,000,000 of authorized but unissued Water System revenue bonds under Resolution No. 34031-15 adopted on April 28, 2015, pursuant to which the Board declared its intention to authorize the issuance of an additional \$653,000,000 of Water System revenue bonds, to be issued from time to time in one or more series. The issuance of revenue bonds by the District is not subject to prior voter approval, although such resolutions of intention to authorize the issuance of bonds are subject to a 60-day referendum period (which, with respect to Resolution Nos. 33606-07 and 34031-15, expired without challenge). The District may from time to time in the future adopt other resolutions authorizing the issuance of additional Water System Revenue Bonds and Parity Debt, subject to the satisfaction of the conditions set forth in the Indenture. See "SECURITY FOR THE SERIES 2017 BONDS - Issuance of Additional Water System Revenue Bonds and Parity Debt; Junior and Subordinate Obligations."

Low-interest loans were made by the SWRCB and the CDWR to the District under the Safe Drinking Water State Revolving Fund and Clean Water State Revolving Fund loan programs to finance certain drinking water infrastructure projects and certain water reclamation and reuse facilities within the District to conserve fresh water supplies. The District has applied for, and may from time-to-time in the future apply for, additional low-interest loans from the State under State loan programs ("State Loans"). All outstanding State Loans provide that such State Loans shall be either senior to or on a parity with all future debt of the District. For purposes of calculating debt service coverage ratios, the District has treated

all such State Loans as Parity Debt. Any future State Loans received by the District would likely constitute Parity Debt under the Indenture. See "SECURITY FOR THE SERIES 2017 BONDS – Outstanding Water System Revenue Obligations – *Parity State Loans*."

Pursuant to the authority of the Municipal Utility District Act, the Board has declared its intention to authorize the issuance of short-term indebtedness of the District (which may include commercial paper notes and/or other forms of bonds, notes or other evidences of short-term indebtedness, including bank credit) in a maximum outstanding principal amount not exceeding the lesser of (1) the annual average of the District's total revenue for the three preceding years or (2) 25% of the District's total outstanding bonds issued pursuant to Chapters 6, 7 and 8 of the Municipal Utility District Act. The District has determined the maximum authorized principal amount of short-term indebtedness (including short-term indebtedness of both the Water System and the Wastewater System) pursuant to the above limit to be an amount not to exceed \$554,000,000 as of June 30, 2016. Commercial paper notes issued for the benefit of the Water System (and the District's repayment obligation for amounts borrowed, if any, under any applicable bank credit therefor), are payable from and secured by a pledge of Water Revenues on a basis subordinate to the Water System Revenue Bonds. See "– Subordinate Commercial Paper Programs" below.

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Table 13 OUTSTANDING WATER SYSTEM DEBT (as of May 1, 2017)

Issue	Date of Issue	Last Maturity	Amount Issued	Outstanding May 1, 2017
Water System Revenue Bonds				
Revenue Refunding Bonds, Series 2007B ⁽¹⁾	05/23/07	06/01/19	\$ 54,790,000	\$ 19,155,000
Revenue Refunding Bonds, Series 2008A ⁽²⁾	03/20/08	06/01/38	322,525,000	105,250,000
Revenue/Refunding Bonds, Series 2010A ⁽³⁾	02/03/10	06/01/36	192,830,000	183,400,000
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	191,750,000
Revenue Refunding Bonds, Series 2012B	11/13/12	06/01/26	358,620,000	278,810,000
Revenue Refunding Bonds, Series 2013A	03/05/13	06/01/21	48,670,000	34,200,000
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	241,220,000
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
Total Water System Revenue Bonds			\$2,629,640,000	\$2,271,510,000
Parity Debt:				
Safe Drinking Water State Revolving Fund Loan				
(Upper San Leandro Reservoir)	01/01/03	01/01/24	2,188,000	892,619
State Water Resources Control Board Loan				
(East Bayshore Recycled Water Project)	05/22/08	04/01/28	20,100,000	12,057,843
Total Parity State Loans			\$ 22,288,000	\$ 12,950,462
Subordinate Debt:				
Commercial Paper Notes (Water Series)	Various	Various	$359,800,000^{(3)}$	359,800,000
Total Debt			\$3,011,728,000	\$2,644,260,462

The Series 2007B Bonds remaining outstanding are expected to be refunded in connection with the issuance of the Series 2017A Bonds. See "PLAN OF FINANCE" in the front part of this Official Statement.

Source: The District.

Variable Rate and Swap Obligations

As of May 1, 2017, of the District's \$2,271,510,000 aggregate principal amount of outstanding Water System Revenue Bonds, \$105,250,000 principal amount are variable rate obligations which are subject to tender prior to maturity in accordance with their terms, such bonds being the District's Water System Revenue Refunding Bonds, Series 2008A (the "Series 2008A Bonds"). The interest rates for the District's Series 2008A Bonds are re-set on a weekly basis (hereinafter, "Weekly Rate Bonds"), and such bonds are subject to tender prior to maturity, including optional tender by the owners thereof upon seven days' notice. Liquidity support for the purchase of the Weekly Rate Bonds is provided by standby bond purchase agreements between the District and various liquidity providers. A decline in the creditworthiness of a liquidity provider will likely result in an increase in the interest rate of the applicable Weekly Rate Bonds, as well as an increase in the risk of a failed remarketing of such tendered

⁽²⁾ Liquidity support currently provided by Standby Bond Purchase Agreements with Wells Fargo Bank, National Association (Series 2008A-1 Bonds and Series 2008A-4 Bonds) and U.S. Bank National Association (Series 2008A-2 and Series 2008A-3 Bonds). See "Table 14 – Liquidity Facilities and Expiration Dates" below. The District has entered into interest rate swap agreements that provide a hedge for the Series 2008A Bonds. See "Table 15 – Water Interest Rate Swap Agreements" below. See also "SECURITY FOR THE SERIES 2017 BONDS – Outstanding Water System Revenue Obligations – Interest Rate Swap Agreements."

A portion of the outstanding Series 2010A Bonds are expected to be refunded in connection with the issuance of the Series 2017A Bonds. See "PLAN OF FINANCE" in the front part of this Official Statement.

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

Weekly Rate Bonds. The obligation of the District to repay any draws on such liquidity facilities is payable from Subordinated Water Revenues on parity with the outstanding Water System Revenue Bonds to the extent such repayment is not thereafter provided from remarketing proceeds of the related Weekly Rate Bonds. Unreimbursed draws under liquidity facilities supporting such variable rate outstanding Water System Revenue Bonds bear interest at a maximum rate that may be substantially in excess of the current interest rate on the related variable rate outstanding Water System Revenue Bonds. Moreover, in certain circumstances, the failure to reimburse draws on the liquidity facilities may result in the acceleration of the scheduled payment of principal on such variable rate outstanding Water System Revenue Bonds.

Table 14 sets forth a listing of the liquidity providers, the expiration date of each facility and the principal amount of outstanding bonds covered under each facility as of May 1, 2017.

Table 14 LIQUIDITY FACILITIES AND EXPIRATION DATES

Water System Revenue Bond Issue	Outstanding Principal Amount	Liquidity Provider	Facility Expiration
Series 2008A-1	\$32,395,000	Wells Fargo Bank, National Association	December 9, 2019
Series 2008A-2	24,285,000	U.S. Bank National Association	July 2, 2018
Series 2008A-3	24,285,000	U.S. Bank National Association	July 2, 2018
Series 2008A-4	24,285,000	Wells Fargo Bank, National Association	December 9, 2019
Total	\$105,250,000		

Source: The District.

In connection with the District's \$105,250,000 principal amount of outstanding variable rate Water System Revenue Bonds, the District has entered into various interest rate swap agreements (collectively, the "Water Interest Rate Swap Agreements"). By virtue of these Water Interest Rate Swap Agreements, the related variable rate Water System Revenue Bonds are essentially treated by the District as fixed rate debt for the purpose of calculating debt service requirements, although the variable payments that the District receives from the Swap Providers (defined below) do not usually equal the payments that the District makes on associated variable rate debt. There is no guarantee that the floating rate payable to the District pursuant to each of the Water Interest Rate Swap Agreements will match the variable interest rate on the associated Water System Revenue Bonds to which the respective Water Interest Rate Swap Agreement relates at all times or at any time. Under certain circumstances, the Swap Providers may be obligated to make a payment to the District under their respective Water Interest Rate Swap Agreement that is less than the interest due on the associated Water System Revenue Bonds to which such Water Interest Rate Swap Agreement relates. In such event, the District would be obligated to pay such insufficiency from Subordinated Water Revenues.

As of May 1, 2017, the District had outstanding the following Water Interest Rate Swap Agreements relating to variable rate Water System Revenue Bonds with the following counterparties (collectively, the "Swap Providers") in the aggregate notional amount of \$105,250,000.

Table 15
WATER INTEREST RATE SWAP AGREEMENTS

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Related Water System Revenue Bond Issue	Outstanding Notional Amount	Swap Provider or Guarantor	District Pays	District Receives	Scheduled Maturity/ Termination Date
Series 2008A Bonds	\$ 16,195,000	Bank of America Corporation	3.115%	62.3% of 30-day LIBOR	06/01/2038
Series 2008A Bonds	37,240,000	Bank of America, N.A.	3.115%	62.3% of 30-day LIBOR	06/01/2038
Series 2008A Bonds	14,575,000	The Bank of New York Mellon	3.115%	62.3% of 30-day LIBOR	06/01/2038
Series 2008A Bonds	37,240,000	JPMorgan Chase Bank, N.A.	3.115%	62.3% of 30-day LIBOR	06/01/2038
	\$105,250,000				

Source: The District.

Under certain circumstances, the Water Interest Rate Swap Agreements may be terminated and the District may be required to make a substantial termination payment to the respective Swap Providers. Pursuant to the Water Interest Rate Swap Agreements, any such termination payment owed by the District would be payable on a basis that is subordinate to the Water System Revenue Bonds but prior to the District's Water System CP Notes.

Early termination of an interest rate swap agreement could occur due to a default by either party or the occurrence of a termination event. In the event of early termination of any of the Water Interest Rate Swap Agreements, there can be no assurance that (i) the District will receive any termination payment payable to the District by the respective Swap Providers, (ii) the District will at all times have sufficient available cash on hand to pay any termination payment payable by it to the respective Swap Providers, or (iii) the District will be able to obtain a replacement Water Interest Rate Swap Agreement with comparable terms. As of March 31, 2017, the District would have been required to pay to the Swap Providers termination payments if its then outstanding Water Interest Rate Swap Agreements were terminated on that date. The District estimated its net exposure to its Swap Providers for all such termination payments as of March 31, 2017 to be approximately \$24.9 million. As of March 31, 2017, the largest aggregate termination payment that would be owed to a single Swap Provider was estimated by the District to be approximately \$8.8 million. The District does not presently anticipate early termination of any of its Water Interest Rate Swap Agreements due to default by either party or the occurrence of a termination event. The District routinely monitors its Swap Providers' creditworthiness and performance under the Water Interest Rate Swap Agreements and may from time to time replace existing Swap Providers and Water Interest Rate Swap Agreements with new replacement interest rate swap agreements if the District determines such action is warranted. Additional information regarding the terms of the Water Interest Rate Swap Agreements may also be found in Note 6(E) in APPENDIX B - "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

Pursuant to the terms of certain of the Water Interest Rate Swap Agreements, the District is required to post collateral in favor of the respective Swap Provider to the extent that the District's total exposure for termination payments to that Swap Provider exceeds the threshold amount specified in the applicable Water Interest Rate Swap Agreement. The applicable collateral posting threshold amounts specified in such Water Interest Rate Swap Agreements would be lower in the event certain ratings assigned to the Water System Revenue Bonds were to be revised downward or withdrawn. In the case of a ratings withdrawal or significant downward rating revision, such decline in the applicable threshold

amounts could significantly increase the District's collateral posting obligation thereunder. If the District's ratings are revised upward, the amount of collateral required to be posted by the District under certain of the Water Interest Rate Swap Agreements could be reduced.

Under the terms of the Water Interest Rate Swap Agreements, the Swap Providers are required to release collateral to the District as market conditions become favorable to the District and may be required to post collateral for the benefit of the District to the extent that such Swap Provider's total exposure for termination payments to the District exceeds the threshold amount specified in the applicable Water Interest Rate Swap Agreement. The highest amount of collateral the District has been required to post in connection with the Water Interest Rate Swap Agreements on any date was approximately \$24.70 million, as of November 30, 2011 (at which time the District's outstanding notional amount of Water Interest Rate Swap Agreements totaled approximately \$861.97 million). The amount of collateral varies from time to time due primarily to interest rate movements and can change significantly over a short period of time. In the future, the District may be required to post additional collateral, or, if it has previously posted collateral to a Swap Provider, may be entitled to a reduction or return of the required collateral amount. Collateral deposited by the District is held by the respective Swap Provider or an agent therefor. A bankruptcy of any Swap Provider holding collateral posted by the District could adversely affect the return of the collateral to the District. Moreover, posting collateral limits the District's liquidity. If collateral requirements increase significantly, the District's liquidity may be adversely affected. As of [May 1, 2017], the District had \$0.00 in collateral posted in favor of the Swap Providers for its Water Interest Rate Swap Agreements. {to be confirmed as of 5/1}

Subordinate Commercial Paper Programs

The District currently maintains two commercial paper note programs for the benefit of the Water System and the District's Wastewater System. Under the extendable municipal commercial paper program, commercial paper may be issued for the Water System or the Wastewater System 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. Under the District's traditional commercial paper program, commercial paper notes may be issued for the Water System or the Wastewater System at prevailing interest rates for periods of not more than 270 days from the date of issuance. In connection with its traditional commercial paper program, the District has covenanted to procure and maintain in effect for any series or subseries of commercial paper notes issued thereunder one or more liquidity facilities enabling it to borrow an aggregate amount at least equal to the principal amount of such series or subseries of commercial paper notes. As of May 1, 2017, the District had outstanding \$359,800,000 aggregate principal amount of tax-exempt Commercial Paper Notes (Water Series) ("Water System CP Notes") issued under the District's traditional commercial paper program. As of May 1, 2017, the District had outstanding no Extendable Municipal Commercial Paper Notes (Water Series) issued under the District's extendable municipal commercial paper program. The Water System CP Notes, together with any additional commercial paper notes issued by the District for the benefit of the Water System under either the District's extendable municipal commercial paper program or its traditional commercial paper program (and the District's repayment obligation for amounts borrowed, if any, under any applicable liquidity facility therefor), are payable from and secured by a pledge of Water Revenues on a basis subordinate to the Water System Revenue Bonds and Parity Debt.

In order to provide an additional source of repayment for the Water System CP Notes, the District has entered into the following liquidity arrangements for the Water System CP Notes: (i) a standby letter of credit and reimbursement agreement with Sumitomo Mitsui Banking Corporation, acting through its New York Branch, under which up to \$200,000,000 may be advanced to the District to pay the principal of maturing Water System CP Notes, which expires on December 1, 2020, and (ii) a revolving credit agreement with Bank of America, N.A, under which up to \$160,000,000 may be advanced to the District

to pay the principal of maturing Water System CP Notes, which expires on November 30, 2018. The District's repayment obligation for amounts borrowed, if any, under the liquidity facilities for the Water System CP Notes are payable from and secured by a pledge of Water Revenues on a basis subordinate to the Water System Revenue Bonds. The liquidity facilities supporting the Water System CP Notes are subject to early termination upon the occurrence of certain events, including, among other things, the failure of the District to make certain payments, the occurrence of certain bankruptcy or insolvency-related events or the reduction below specified levels or the withdrawal or suspension of ratings on certain obligations of the Water System payable from Water Revenues. Upon the occurrence of such termination or certain other specified events of default, one or more of the following would likely occur: (a) the District would be prohibited from issuing additional commercial paper notes supported by such liquidity facility; (b) any outstanding obligations of the District to the liquidity provider, including any repayment obligation for amounts advanced under any such liquidity facility for the payment of Water System CP Notes, could bear interest at rates substantially higher than the rates borne by the Water System CP Notes; and (c) the amortization of such repayment obligation would be accelerated.

Debt Service Requirements

Table 16 on the following page shows estimated future payments on outstanding debt.

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Table 16
WATER SYSTEM ESTIMATED DEBT SERVICE⁽¹⁾

Fiscal Year Ending	Series 2	007B Through Series	2015C ⁽²⁾	Series 2017	State Parity	Total Water System Revenue Bonds and	Water System	Total Debt
June 30	Principal	Interest ⁽³⁾	Total	Bonds	Loans (4)	Parity Debt	CP Notes ⁽⁵⁾	Service ⁽⁶⁾
2017	\$ 51,795,000	\$ 112,231,069	\$ 164,026,069		\$ 1,400,108	\$ 165,426,176	\$ 1,799,000	\$ 167,225,176
2018	58,025,000	109,750,919	167,775,919		1,400,108	169,176,026	8,995,000	178,171,026
2019	60,445,000	107,168,919	167,613,919		1,400,108	169,014,026	8,995,000	178,009,026
2020	63,165,000	104,265,419	167,430,419		1,400,108	168,830,526	10,794,000	179,624,526
2021	65,970,000	101,206,869	167,176,869		1,400,108	168,576,976	10,794,000	179,370,976
2022	68,770,000	98,127,519	166,897,519		1,400,108	168,297,626	10,794,000	179,091,626
2023	72,000,000	94,827,569	166,827,569		1,400,108	168,227,676	10,794,000	179,021,676
2024	75,265,000	91,315,019	166,580,019		1,400,108	167,980,126	10,794,000	178,774,126
2025	78,895,000	87,681,369	166,576,369		1,260,248	167,836,616	10,794,000	178,630,616
2026	80,510,000	83,857,019	164,367,019		1,260,248	165,627,266	10,794,000	176,421,266
2027	77,605,000	79,854,969	157,459,969		1,260,248	158,720,216	10,794,000	169,514,216
2028	81,415,000	75,979,219	157,394,219		1,260,248	158,654,467	10,794,000	169,448,467
2029	85,405,000	71,909,969	157,314,969			157,314,969	10,794,000	168,108,969
2030	90,825,000	67,679,419	158,504,419			158,504,419	10,794,000	169,298,419
2031	96,520,000	63,147,669	159,667,669			159,667,669	10,794,000	170,461,669
2032	101,155,000	58,505,908	159,660,908			159,660,908	10,794,000	170,454,908
2033	106,020,000	53,639,276	159,659,276			159,659,276	10,794,000	170,453,276
2034	110,845,000	48,813,833	159,658,833			159,658,833	10,794,000	170,452,833
2035	115,840,000	43,796,683	159,636,683			159,636,683	10,794,000	170,430,683
2036	127,445,000	38,309,293	165,754,293			165,754,293	10,794,000	176,548,293
2037	132,995,000	31,868,299	164,863,299			164,863,299	10,794,000	175,657,299
2038	142,520,000	24,962,217	167,482,217			167,482,217	10,794,000	178,276,217
2039	147,855,000	17,126,651	164,981,651			164,981,651	10,794,000	175,775,651
2040	45,580,000	8,623,520	54,203,520			54,203,520	10,794,000	64,997,520
2041	28,415,000	6,135,800	34,550,800			34,550,800	10,794,000	45,344,800
2042	29,720,000	4,825,200	34,545,200			34,545,200	10,794,000	45,339,200
2043	31,095,000	3,453,700	34,548,700			34,548,700	10,794,000	45,342,700
2044	32,530,000	2,018,050	34,548,050			34,548,050	10,794,000	45,342,050
2045	12,885,000	515,400	13,400,400			13,400,400	10,794,000	24,194,400
2046	,,					,,		
2047								
Total ⁽⁵⁾	\$2,271,510,000	\$1,691,596,757	\$3,963,106,757		\$16,241,854	\$3,979,348,611	\$300,433,000	\$4,279,781,611

⁽¹⁾ Debt service is calculated on a cash basis.

Source: The District.

⁽²⁾ Includes Refunded Bonds.

Includes fees to liquidity providers assuming current fee levels. Assumes debt service on outstanding Series 2008A Bonds has been fixed pursuant to interest rates wap agreements. See"-Variable Rate and Swap Obligations" above. Includes gross interest payable before application of any cash subsidy received by the District from the United States Treasury relating to the Series 2010B Bonds ("BABs Interest Subsidy Payments"). Upon the effective date of the amendments to the Indenture pursuant to the Sixteenth Supplemental Indenture, the BABs Interest Subsidy Payments reasonably expected to be received by the District will be treated as an offset to debt service on the Series 2010B Bonds for purposes of the Indenture. See "AMENDMENTS TO THE INDENTURE" in the front part of this Official Statement.

⁽⁴⁾ See "SECURITYFORTHESERIES 2017 BONDS — Outstanding Water System Revenue Obligations — Parity State Loans."

Assumes \$359,800,000 principal amount outstanding at assumed interest rate of 0.50% in Fiscal Years 2017, 2.50% in Fiscal Years 2018 and 2019, and 3.00% thereafter. Includes interest only (no principal amortization). While the commercial paper program is limited by statute to seven years, it is the District's intention to reestablish the commercial paper program prior to the expiration of each seven-year period.

⁽⁶⁾ Totals may not add due to rounding.

Financial Management Policies

The District has detailed management policies that include guidelines for debt, capital planning, investments, derivatives, and formal reserves. It is the current policy of the District to seek to maintain a debt service coverage ratio of 1.6 times on its outstanding Water System Revenue Bonds and to fund no more than 65% of its capital program over each five-year planning period from proceeds of debt. The debt policy also limits unhedged variable rate debt to 25% of the total debt portfolio. Derivatives use is governed by a comprehensive derivatives policy with guidelines for counterparties, termination, and risk exposure. The District budgets for a number of formal reserves for the Water System, including: (i) a working capital reserve equal to three months of operation and maintenance expenses; (ii) a self-insurance reserve equal to 1.25 times the expected annual expenditure; (iii) a workers' compensation reserve of approximately \$3.2 million in Fiscal Year 2016; and (iv) a contingency/rate stabilization reserve (which is included in the Rate Stabilization Fund) of at least 20% of projected annual water volume sales revenues. The aggregate budgeted reserves level for Fiscal Year 2016 for these four formal reserves for the Water System was approximately \$165.3 million, which amount the District maintained in accordance with its reserve policies. The current investment policy dictates investment criteria, reporting, and administrative requirements.

District Investment Policy

Funds of the District are invested in accordance with the Government Code of the State, the Municipal Utility District Act and the District's investment policy. The four primary investment criteria set forth in the District's written investment policy are (in order of priority): (1) preservation of principal; (2) maintenance of liquidity; (3) yield; and (4) diversity. In order to keep funds available to meet commitments, the District's investment policy provides that the maturity date (or put provision) of individual investments shall not exceed five years and that the average maturity of the portfolio shall not exceed 720 days. Investments permitted by the District's current investment policy include U.S. Treasury notes, bonds and bills, the State of California Local Agency Investment Fund, obligations issued by federal agencies and commercial paper rated in the highest short-term rating category, as well as collateralized repurchase agreements, certificates of time deposit and negotiable certificates of deposit, medium term corporate notes, California municipal bonds, and the California Asset Management Program. Monies in the funds and accounts held by the Trustee under the Indenture may be invested only in Investment Securities, as defined therein. The District does not enter into reverse repurchase agreements or otherwise borrow for purposes of investing, and the District does not invest in derivatives. The District has, however, entered into interest rate swap transactions to hedge interest rate exposure on outstanding variable rate Water System Revenue Bonds as described herein.

Pursuant to the District's investment policy, all securities purchased from dealers and brokers are held in safekeeping by the trust department of a state or national bank on a payment vs. delivery basis. Collateral is delivered or assigned under a tri-party agreement for all repurchase agreements. Trade confirmations are reviewed for conformity to the original transaction by an individual other than the one who originated the transaction. Transactions are ratified by the General Manager and reported quarterly to the Finance/Administration Committee of the Board.

Cash and Investments

The District's cash and investments are segregated by restricted and unrestricted amounts. Restricted cash and investments generally include bond proceeds and debt service reserve funds, developer advances and capital contributions, and other miscellaneous restricted amounts. At June 30, 2016, the breakdown between restricted and unrestricted amounts for the Water System is as follows:

Table 17 WATER SYSTEM CASH AND INVESTMENTS (As of June 30, 2016) (Thousands)

Cash and investments included in current and unrestricted assets \$340,431
Cash and investments included in restricted assets 45,710
Total cash and investments \$386,141

Source: The District.

See also "– Cash and Investments by Fund" in the Management's Discussion and Analysis included in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015." Additional information regarding the District's investment portfolio may also be found in Note 2 in the District's financial statements included in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

Insurance

The District uses a combination of self-funding/self-insuring and insurance coverage in the District's risk management program. The program provides protection for the District's buildings and facilities, including their contents and equipment, from fire, explosion and related perils, including flood. The District's insurance program does not currently include earthquake coverage. The District self-insures for liability claims up to \$10 million for bodily injury and property damage that may arise from the District's water and wastewater operations, including but not limited to use of its property, facilities or vehicles.

The District maintains a reserve of approximately \$10 million that is earmarked to pay both liability and workers' compensation claims that may arise from the District's water and wastewater systems' operations. See also "WATER SYSTEM FINANCES – Financial Management Policies."

Selected insurance coverages include the following:

- \$90 million of commercial general and automobile liability insurance, subject to a \$10 million per occurrence self-insured retention for both the Water System and the Wastewater System;
- Statutory limits of excess workers' compensation coverage, subject to a \$5 million selfinsured retention for both the Water System and the Wastewater System;

- \$200 million in coverage for "all risk" property insurance, subject to a \$500,000 deductible, with exclusions including, but not limited to, earthquake, dams, reservoirs, under- and above-ground pipes and aqueducts;
- \$25 million per occurrence/annual aggregate in coverage for flood perils, subject to a \$1.5 million minimum deductible per occurrence/annual aggregate, with the same exclusions as under the "all risk" policy described above other than above-ground aqueducts for which \$2.5 million in coverage is provided; the policy also provides a flood sublimit of \$10 million per occurrence/annual aggregate for losses wholly or partially within the areas of 100-year flooding as defined by FEMA with a deductible of 5% of the total insurable property values at the time of the loss at each location involved in the loss or a minimum deductible of \$1.5 million;
- \$10 million in coverage for boiler and machinery insurance, subject to a \$25,000 deductible (except for Pardee Dam, Camanche Dam and the Main Wastewater Treatment Plant, for which a \$50,000 deductible applies); and
- \$10 million in coverage for crime insurance for protection against fraudulent acts of employees, subject to a \$25,000 deductible.

Historical Operating Results

The District's financial statements for Fiscal Year 2016, and the Report of Maze & Associates, independent accountants, are included as Appendix B, which are incorporated by reference into this Official Statement, and should be read in their entirety. The summary of operating results for Fiscal Years 2012 through 2016 contained in Table 18 is derived from information from the audited financial statements for such Fiscal Years and is qualified in its entirety by reference to such statements, including the notes thereto.

Table 18 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.

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Table 18 WATER SYSTEM

Historical Operating Results and Debt Service Coverage⁽¹⁾ Fiscal Years 2012 through 2016

2012

	2012	2013	2014	2015	2016
WATER REVENUES ⁽²⁾ :					
Water Sales ⁽³⁾	\$306,228,357	\$336,065,516	\$367,547,268	\$362,135,681	\$421,239,645
Power Revenue	4,609,259	3,595,948	1,380,348	2,209,938	3,524,767
Interest	4,551,068	3,731,406	1,691,927	3,449,378	2,196,001
SCC Revenue ⁽⁴⁾	30,733,972	22,673,134	20,365,047	29,725,090	39,323,341
Seismic Rate Surcharge ⁽⁵⁾	19,172,928	20,536,924	22,628,261	22,258,683	38,793
Other Revenue ⁽⁶⁾	16,159,977	12,842,012	19,937,710	15,291,924	13,972,663
TOTAL WATER REVENUES	<u>\$381,455,561</u>	<u>\$399,444,940</u>	<u>\$433,550,561</u>	\$435,070,694	\$480,295,210
RATE STABILIZATION FUND TRANSFERS:					
Deposits to the Rate Stabilization Fund Withdrawals from Rate Stabilization	\$ 0	\$ 0	\$(35,000,000)	\$(10,000,000)	\$ 0
Fund for Inclusion in revenues WATER REVENUES AFTER RATE	0	0	0	0	0
STABILIZATION TRANSFER	<u>\$381,455,561</u>	\$399,444,940	\$398,550,561	\$425,070,694	<u>\$480,295,210</u>
WATER OPERATION & MAINTENANCE COSTS:					
Operating Expenses	\$197,818,566	\$197,249,098	\$213,692,428	\$210,786,463	\$238,624,710
(Less Tax Receipts) ⁽⁷⁾	(23,385,603)	(26,435,974)	(25,492,391)	(27,922,120)	(29,869,433)
TOTAL WATER OPERATION &					
MAINTENANCE COSTS	<u>\$174,432,963</u>	<u>\$170,813,124</u>	\$188,200,037	<u>\$182,864,343</u>	\$208,755,277
NET WATER REVENUES	\$207,022,598	\$228,631,816	\$210,350,524	\$242,206,351	\$271,539,933
PARITY DEBT SERVICE:					
Water System Revenue Bonds ⁽⁸⁾	\$129,330,308	\$132,270,442	\$125,016,887	\$144,320,119	\$162,809,748
Parity State Loans	1,400,105	1,400,105	1,400,107	1,400,108	1,400,108
TOTAL PARITY DEBT SERVICE	\$130,730,413	\$133,670,547	\$126,416,994	\$145,720,227	\$164,209,856
PARITY DEBT SERVICE COVERAGE	1.58	1.71	1.66	1.66	1.65
SUBORDINATE WATER SYSTEM DEBT SERVICE ⁽⁹⁾	\$ 8,495,107	\$ 687,369	\$ 13,562,675	\$ 335,794	\$ 340,580
TOTAL PARITY AND SUBORDINATE DEBT SERVICE	\$139,225,520	\$134,357,916	\$139,979,669	\$146,056,021	\$164,550,436
TOTAL PARITY AND SUBORDINATE DEBT SERVICE COVERAGE	1.49	1.70	1.50	1.66	1.65

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

Source: The District.

⁽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 162.1 MGD in Fiscal Year 2012, 168.4 MGD in Fiscal Year 2013, 167.5 MGD in Fiscal Year 2014, 148.5 MGD in Fiscal Year 2015 and 128.0 MGD in Fiscal Year 2016.

⁽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.

⁽⁶⁾ Includes BABs Interest Subsidy Payments received in connection with the Series 2010B 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 and certain federal and State subordinate loans (which subordinate loans have been retired). Commercial paper notes debt service includes interest and a one-time principal pay down in Fiscal Year 2014 of \$13.1 million.

District Management's Discussion of Fiscal Year 2016 Operating Results

Despite the significant cutback in customer water use during the drought, the operating results for Fiscal Year 2016 were strong largely due to a substantial rate increase and the addition of a 25% stage 4 drought surcharge. With the declaration of a stage 4 critical drought on April 14, 2015, the District adopted a mandatory District-wide reduction goal of 20% compared to the 2013 baseline water use as specified by the State. By the end of Fiscal Year 2016, customers had reduced their water use by 24%, exceeding the District-wide goal of 20%. The net result was average billed consumption of approximately 128 MGD in Fiscal Year 2016, a 20 MGD decrease from Fiscal Year 2015, when the District was under a 10% voluntary conservation declaration. However, due to the 8% rate increase in Fiscal Year 2016 and the 25% stage 4 drought surcharge, the water sales revenue in Fiscal Year 2016 increased by approximately \$37 million from Fiscal Year 2015 water sales revenue including revenue from the seismic improvement surcharge. The seismic improvement surcharge was collected on the water bill from Fiscal Years 1995 through 2015 and was discontinued in Fiscal Year 2016 when the revenue collected was sufficient to pay all of the program's costs. Other revenues in Fiscal Year 2016 increased by approximately \$8 million over Fiscal Year 2015 primarily due to an almost \$10 million increase in System Capacity Charges from the construction of several large scale developments offset slightly by small reductions in several other revenue categories.

The drought contributed to higher overall Operation and Maintenance Costs for Fiscal Year 2016 over Fiscal Year 2015 of approximately \$29 million as the District elected to purchase and treat additional water supply needed during the drought. The higher Operation and Maintenance Costs reflected the increase in raw water expenses as well as increases in water treatment and distribution expenses.

Based on experience in prior drought cycles, the District anticipates that consumption will likely stay below previously projected levels in Fiscal Year 2017 and beyond. The Rate Stabilization Fund provides the District with a tool to maintain stable revenues and policy level coverage as it addresses the current and anticipated future impacts of variable weather conditions. The Rate Stabilization Fund totaled \$95 million as of June 30, 2016.

Parity lien debt service coverage in Fiscal Year 2016 was approximately 1.65 times, above the District's policy target of 1.6 times. This is a slight decline from the prior Fiscal Year's coverage level of 1.66 times. Overall debt service coverage of 1.65 times in Fiscal Year 2016 was in line with typical levels over the prior five years.

See also the "Management's Discussion and Analysis" contained in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

Projected Operating Results

In the preparation of the projections in this section, the District has made certain assumptions with respect to conditions that may occur in the future. While the District believes these assumptions are reasonable for the purpose of the projections, they are dependent on future events, and actual conditions may differ from those assumed. To the extent actual future factors differ from those assumed by the District or provided to the District by others, the actual results will vary from those forecasted. This projected information has not been compiled, reviewed or examined by the District's independent accountants.

Table 19 sets forth the projected operating results and calculation of the debt service coverage ratio for the Water System for the current and next five Fiscal Years. Projected results for Fiscal Year

2017 were originally developed in connection with the District's biennial budget for Fiscal Years 2015 and 2016, and were subsequently updated in connection with the District's semi-annual budget performance review to reflect actual results experienced through December 31, 2016 and expectations as of such date for the remainder of Fiscal Year 2017. Projected results for Fiscal Year 2018 through 2022 were developed in connection with the District's proposed biennial budget for Fiscal Years 2018 and 2019; they have not yet been approved by the Board. The District's proposed biennial budget and rate increases for Fiscal Years 2018 and 2019 are scheduled for consideration for adoption by the Board on [June 13], 2017. In the preparation of the projected operating results, the District developed forecasts of water consumption for the projection period, taking into account historical consumption levels, the continuing effects of conservation measures taken by customers in response to the recent drought in California, limited growth in the service area, and the expectations for the future economic environment. See also "—Discussion of Projected Operating Results for Fiscal Year 2017" and "—Discussion of Budget Projections for Fiscal Years 2018 through 2022" below.

The District does not expect that growth will significantly bolster net revenues. As such, maintaining the District's policy target of 1.60 times for debt service coverage on its Water System Revenue Bonds will require annual rate increases. The projection period reflects the proposed overall rate increases of 9.25% and 9.00% for Fiscal Years 2018 and 2019, respectively. Annual rate increases of 7.00%, 7.00% and 5.00% are assumed for Fiscal Years 2020, 2021 and 2022, respectively. Any such rate increases will be subject to Board approval. Projected Operating Expenses incorporate salary and benefit expectations. The District's service area is mature and significant increases in SCC revenues are not expected. A higher level of cash funded capital spending is planned because of the nature of the District's capital plan which is largely comprised of renewal and replacement projects.

The District's biennial budget for Fiscal Years 2016 and 2017 included a budget forecast for Fiscal Years 2016 through 2020 and rate increases for Fiscal Years 2016 and 2017. The biennial budget for Fiscal Years 2016 and 2017 was approved by the Board on June 9, 2015. The proposed biennial for Fiscal Years 2018 and 2019 includes a budget forecast of projected operating results covering the five Fiscal Years 2018 through 2022. The proposed biennial budget for Fiscal Years 2018 and 2019 was presented to the Board on April 11, 2017, and is scheduled for consideration for adoption by the Board on [June 13,] 2017. No assurance can be given that the proposed biennial budget for Fiscal Years 2018 and 2019 will be adopted in its current form.

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Table 19 WATER SYSTEM Projected Operating Results and Debt Service Coverage (Millions) Fiscal Years 2017 through 2022

Proposed FY 2018 and 2019 Budget Five-Year Financial Forecast

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	$2017^{(1)}$	2018 ⁽²⁾	2019 ⁽²⁾	2020 ⁽²⁾	2021 ⁽²⁾	2022(2)
WATER REVENUES ⁽³⁾ :						
Water Sales ⁽⁴⁾	\$418.3	\$454.7	\$507.5	\$552.6	\$601.0	\$642.4
Power Revenue	6.0	3.7	3.7	3.7	3.7	3.7
Interest Earnings ⁽⁵⁾	3.0	7.3	7.4	9.2	9.3	9.5
SCC Revenue ⁽⁶⁾	27.0	27.0	28.0	28.9	29.9	31.0
Other Revenue ⁽⁷⁾	13.7	13.2	13.3	13.2	13.3	13.4
TOTAL WATER REVENUES	<u>\$468.0</u>	<u>\$505.9</u>	<u>\$559.8</u>	<u>\$607.7</u>	<u>\$657.3</u>	<u>\$700.0</u>
RATE STABILIZATION FUND TRANSFERS:						
Deposits to the Rate Stabilization Fund Withdrawals from Rate Stabilization	\$ 0.0	\$ 0.0	\$ 0.0	\$ 10.0	\$ 17.0	\$ 18.0
Fund for Inclusion in revenues WATER REVENUES AFTER RATE	2.0	26.0	2.0	0.0	0.0	0.0
STABILIZATION TRANSFER	<u>\$470.0</u>	<u>\$531.9</u>	<u>\$561.8</u>	<u>\$597.7</u>	<u>\$640.3</u>	<u>\$682.0</u>
WATER OPERATION & MAINTENANCE COSTS:						
Operating Expense ⁽⁸⁾	\$232.6	\$261.6	\$275.8	\$285.6	\$297.4	\$308.2
(Less Tax Receipts) ⁽⁹⁾ TOTAL WATER OPERATION &	(29.0)	(30.0)	(30.7)	(31.4)	(32.2)	(33.0)
MAINTENANCE COSTS	<u>\$203.6</u>	<u>\$231.6</u>	<u>\$245.1</u>	<u>\$254.2</u>	<u>\$265.2</u>	<u>\$275.2</u>
NET WATER REVENUES	\$266.4	\$300.3	\$316.7	\$343.5	\$375.1	\$406.8
PARITY DEBT SERVICE:						
Water System Revenue Bonds (10)	\$164.4	\$186.3	\$196.3	\$208.4	\$219.8	\$228.2
Parity State Loans	1.4	1.4	1.4	1.4	1.4	1.4
TOTAL PARITY DEBT SERVICE	\$165.8	\$187.7	\$197.7	\$209.8	\$221.2	\$229.6
PARITY DEBT SERVICE COVERAGE	1.61	1.60	1.60	1.64	1.70	1.77
SUBORDINATE WATER SYSTEM CP NOTES DEBT SERVICE ⁽¹¹⁾	2.9	10.7	10.7	12.5	12.5	12.5
TOTAL PARITY AND SUBORDINATE DEBT SERVICE	\$168.7	\$198.4	\$208.4	\$222.3	\$233.7	\$242.1
PARITY AND SUBORDINATE DEBT SERVICE COVERAGE	1.58	1.51	1.52	1.55	1.60	1.68

Fiscal Years 2017 projected results are based upon the District's biennial budget for Fiscal Years 2016 and 2017 which was approved by the Board on June 9, 2015, as subsequently updated in connection with the District's Fiscal Year 2017 semi-annual budget performance review to reflect actual results through December 31, 2016. For a discussion of currently expected operating results based upon performance to date and the effect of the recent drought conditions in California, see "– Discussion of Projected Operating Results for Fiscal Year 2017" below.

(Table footnotes continued on following page.)

Fiscal Years 2018 through 2022 projected results are derived from the District's five-year financial forecast prepared in connection with the proposed biennial budget for Fiscal Years 2018 and 2019 which was presented to the Board on April 11, 2017. The biennial budget for Fiscal Years 2018 and 2019 is scheduled for consideration for adoption by the Board on [June 13], 2017.

Revenues exclude grant receipts, taxes, reimbursements and certain developer contributions which are treated as contributions (not Water Revenues). Revenues as projected do not take into account any amounts to be derived from the drought surcharges. See "– Rates and Charges."

(Footnotes to table continued from prior page.)

- (4) Assumes projected average daily billed consumption per day of 133 MGD in Fiscal Year 2017, 137 MGD in Fiscal Years 2018, 141 MGD in Fiscal Year 2019, 144 MGD in Fiscal Year 2020, 147 MGD in Fiscal Year 2021 and 150 MGD in Fiscal Year 2022. See "- Rates and Charges" above. Reflects adopted average annual rate increase (excluding drought surcharges) of 7.00% in Fiscal Year 2017, and assumes average annual rate increases (excluding any drought surcharges) of 9.25% in Fiscal Year 2018, 9.00% in Fiscal Year 2019, 7.00% in Fiscal Year 2020, 7.00% in Fiscal Year 2021 and 5.00% in Fiscal Year 2022. See "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS."
- Assumes 1.00% earnings rate for Fiscal Year 2017, 2.00% earnings rate in Fiscal Years 2018 and 2019, and 2.50% earning rate thereafter. Excludes non-cash change in fair market value of investments.
- SCC Revenues presented in the table above include both the projected "buy-in" portion of SCC charges and the "future water supply" portion of SCC charges when collected. See "- System Capacity Charge" above. SCC Revenues are capitalized and are not recognized as operating revenues for purposes of the District's audited financial statements.
- Other Revenue includes the anticipated receipt of BABs Interest Subsidy Payments relating to Series 2010B Bonds. In light of the potential effect of ongoing sequestration, the District has assumed cash receipts of approximately 33.25% of the interest payable on the Series 2010B Bonds (95% of the BABs Interest Subsidy Payments of 35% provided for under the American Recovery and Reinvestment Act of 2009).
- Projected Operating Expenses do not take into account the incremental costs of any supplemental water supplies purchased by the District. It is expected that costs associated with the purchase, treatment and delivery of supplemental water supplies, when taken, would be funded from receipts to be derived from the new system of drought surcharges adopted by the Board on June 9, 2015. See "THE WATER SYSTEM Water Supply Operations Current California Drought." See also "WATER SYSTEM FINANCES Drought Surcharges."
- (9) Water Operation and Maintenance Costs exclude those expenses paid from *ad valorem* taxes. Under current District policy, taxes are used to pay for operations allocable to maintenance of fire protection capacity.
- Assumes that interest with respect to the outstanding Series 2008A Bonds have been swapped to fixed rates. See "SECURITY FOR THE SERIES 2017 BONDS Outstanding Water System Revenue Obligations *Water Interest Rate Swap Agreements*." Includes assumed liquidity fees. Assumes issuance of additional Bonds of approximately \$129.0 million in Fiscal Year 2017, \$179.0 million in Fiscal Year 2018, \$151.6 million in Fiscal Year 2029, \$180.0 million in Fiscal Year 2021 and \$133.0 million in Fiscal Year 2022. The actual size and timing of future debt issuances undertaken by the District will be determined by the District based on market considerations and other factors. Also includes additional amount budgeted by the District (not included in Table 16) for estimated basis differential between variable rate bond interest rates and related swap receipts.
- Includes assumed liquidity fees. Assumes interest only at 0.50% per annum in Fiscal Years 2017, 2.50% per annum in Fiscal Years 2018 and 2019 and 3.00% per annum thereafter with no principal amortization. Assumes \$359.8 million of Water System CP Notes outstanding.

Source: The District.

Discussion of Projected Operating Results for Fiscal Year 2017

Total Water System revenues for Fiscal Year 2017 are projected to be \$468.0 million or \$30.9 million less than originally budgeted primarily due to projected low water sales of 133 MGD compared to budgeted water sales of 151 MGD. Budgeted water sales of 151 MGD for Fiscal Year 2017 was set in 2015 prior to the declaration of the Stage 4 drought emergency for Fiscal Year 2016. Projected water sales of 133 MGD for Fiscal Year 2017 is a slight increase from sales of 128 MGD experienced during Fiscal Year 2016's Stage 4 drought emergency. Despite the fact that the drought has ended and water use restrictions have been lifted for Fiscal Year 2017, it is expected that customers will maintain many of their conservation habits. Water sales revenue for Fiscal Year 2017 is projected to be \$418.3 million which is \$34.7 million less than budgeted; however, this is partially offset by other revenues sources that are projected to be higher than budgeted such as power sales and system capacity charges. In addition, projected Fiscal Year 2017 operating expenses are projected to be \$203.6 million which is \$18 million less than budgeted, primarily attributable less spending on operating labor. The projected Fiscal Year 2017 spending on debt service is projected to be \$167.6 million which is \$9.4 million less than budgeted due to low interest rates for commercial paper during most of Fiscal Year 2017 and a postponing the issuance of \$129 million in revenue bonds from the summer of 2016 to June 2017 that will reimburse cash spending for capital projects. If the projections of revenues and expenditures hold true, the District

would end Fiscal Year 2017 with a withdrawal of \$2 million in rate stabilization funds which will be used to maintain the District's policy level for debt service coverage of 1.60.

Discussion of Budget Projections for Fiscal Years 2018 through 2022

The five-year financial forecast for the period between Fiscal Years 2018 and 2022 is based on specified assumptions, reflected in the footnotes to Table 19 and outlined below. These assumptions do not incorporate drought-related costs or revenues, as discussed below. The first two years in the five-year financial forecast are based upon the District's two-year budget. The proposed biennial budget for Fiscal Years 2018 and 2019 was presented to the Board on April 11, 2017. The biennial budget for Fiscal Years 2018 and 2019 is scheduled for consideration for adoption by the Board on [June 13], 2017. In conjunction with the Board's consideration for adoption of the District's proposed biennial budget, the Board will consider for adoption proposed rate increases for Fiscal Years 2018 and 2019, following a public hearing on such proposed rate increases to be held on that date. See "– Rates and Charges" above.

Based upon the base budget assumptions outlined below, revenues are forecast to increase by 8.5% annually over the five-year period between Fiscal Years 2018 and 2022 while forecasted operating expenses are expected to grow by an average of approximately 4.4% per year and debt service increases by an average of 5.1% per year. Capital cash flow spending is projected at \$1.502 billion over the five-year period between Fiscal Years 2018 and 2022. Projected capital expenditures are directed at sustained reinvestments in physical infrastructure, including increasing the annual replacement rate of water distribution pipeline from the projected 15 miles per year in the biennial budget for Fiscal Years 2017 to 20 miles per year over the next five years. Other capital projects include rehabilitating aqueducts, treatment plans, pumping plants and other infrastructure, and rehabilitating reservoirs.

The average percentage of capital funded from debt is projected at 52% over that period, lower than the financial policy maximum of 65%. Revenue bond debt service coverage is projected to meet or exceed the 1.6x policy target each year and increase annually throughout the period. In Fiscal Year 2018 revenue bond debt service coverage ratio is projected to be 1.60x including a \$26 million draw upon the Rate Stabilization Fund reserve. In Fiscal Year 2019 revenue bond debt service coverage ratio is projected to be 1.60x including a \$2 million draw upon the Rate Stabilization Fund reserve. Debt service coverage is projected to increase steadily, with no further draws on the Rate Stabilization Fund reserve, to 1.64x, 1.70x, and 1.77x in Fiscal Years 2020, 2021 and 2022, respectively. This debt service coverage ratios include deposits into the Rate Stabilization Fund reserve of \$10 million, 17 million, and 18 million in Fiscal Years 2020, 2021 and 2022, respectively. Reserve balances, including the Rate Stabilization Fund reserve, are projected to meet or exceed the policy reserve levels throughout the five-year period. Total unrestricted reserves are projected at over \$350 million in each year, and the Rate Stabilization Fund reserve is projected to be \$65 million at the end of Fiscal Year 2018, increasing to \$110 million at the end of the five-year projection period.

The five-year financial forecast for the period between Fiscal Years 2018 and 2022 is based on certain assumptions, which the District believes to be reasonable, incorporating among other factors the decreased demand for water in recent years. The forecast includes conservative assumptions on the rebound of customer water use after the critical drought from 2012-2015, but it does not include the impact of a new drought in the base assumptions; management of drought costs from a new drought during the forecast period is addressed below. Water sales volume is projected at 137 MGD in Fiscal Year 2018 and 141 MGD in Fiscal Year 2019, well below prior years' budget assumptions of 151 MGD in Fiscal Years 2016 and 2017. Water sales volume is projected to increase only modestly to 144 MGD, 147 MGD and 150 MGD in Fiscal Years 2020, 2021, and 2022, respectively. The assumed overall increases to base rates and charges for Fiscal Years 2018 and 2019 are 9.25% and 9.0%, consistent with the proposed budget and Proposition 218 notice. Due to the impact of continued reduced customer water use in response to the recent critical drought in California, the proposed rate increases for Fiscal Years 2018

and 2019 are higher than the assumed rates in the prior five-year financial forecast developed when the biennial budget for Fiscal Years 2016 and 2017 was approved in June 2015. Lower overall rate increases of 7.0%, 7.0% and 5.0% per annum are assumed for Fiscal Years 2020, 2021 and 2022 respectively. The base rates exclude any drought surcharges.

The District has developed a comprehensive approach to managing the financial impacts and recovery of reduced water consumption following the drought. The proposed Fiscal Year 2018 and 2018 biennial budget provides for the long-term financial stability of the District. The five-year financial forecast from Fiscal Year 2018 through 2022 is built on prudent water sales assumptions to address reduced consumption. Proposed Fiscal Year 2018 and 2019 water rates and charges are increasing, in part, to account for reduced water consumption. The Rate Stabilization Fund absorbs a portion of the revenue reduction due to reduced water sales.

Employees' Retirement System

General. The District has a contributory retirement system covering substantially all of its employees (including the Water System and Wastewater System). The East Bay Municipal Utility District Employees' Retirement System ("Retirement System") was established in 1937 to administer a single-employer, contributory, defined benefit pension plan (the "Plan") to provide retirement, disability, survivorship and post-employment health insurance benefits ("HIB") for eligible directors, officers and employees of the District. The Plan is funded by contributions from its members and from the District, and from investment earnings on Plan assets. The payment of benefits earned by Plan members of the Retirement System is an obligation of the District. Employees of the District are also covered by Social Security.

The Retirement System is administered by a Retirement Board composed of three members appointed by the District Board, two members elected by and from the active membership and one (nonvoting) member elected by and from the retired membership of the Retirement System. Ordinance No. 40 of the District, effective October 1, 1937, as amended (the "Retirement System Ordinance"), assigns the authority to establish Plan benefit provisions to the District Board.

Contributions to the Retirement System are made by the members and the District. Each member's contribution is based upon a percentage of that member's covered compensation. The employee contribution rates for 1955/1980 Plan members (i.e., employees first hired prior to January 1, 2013) are prescribed in the Retirement System Ordinance and may be adjusted by the District Board solely pursuant to the terms of a negotiated collective bargaining agreement or MOU with employee bargaining units. Pursuant to applicable provisions of the California Public Employees' Pension Reform Act of 2013 as codified ("PEPRA"), 2013 Tier members (i.e., employees first hired on or after January 1, 2013) are required to contribute at least 50% of the "normal cost" rate (see "- California Pension Reform Act" below). The District employees' contribution rate for 1955/1980 Plan members (which includes a 0.09% contribution to the HIB) was increased from 6.83% to 7.33% effective April 22, 2013, to 7.83% beginning April 21, 2014, to 8.33% beginning April 20, 2015 and to 8.75% on April 18, 2016. The current District employees' contribution rate for 1955/1980 Plan members (including the 0.09% contribution to the HIB) is [8.75%] *(monitor for changes)*. The District employees' contribution rate for 2013 Tier members (which also includes a 0.09% contribution to the HIB) is established by the District Board, and such rates are based upon actuarial valuations. The current District employees' contribution rate for 2013 Tier members (including the 0.09% contribution to the HIB) is 8.84%.

The District (employer) contributions are based upon percentages of the aggregate amount of members' covered compensation. Employer contribution percentages are established by the District Board. Such percentages are based upon actuarial valuations. The District's employer contribution

percentage for 1955/1980 Plan members has been established at 43.22% for Fiscal Year 2016-17 (including a 5.51% contribution to the HIB) and has been established at 35.98% for 2013 Tier members (including a 5.06% contribution to the HIB). For Fiscal Year 2017-18, based upon the June 30, 2016 funding valuation reports prepared by the actuary, the recommended District employer contribution percentage for 1955/1980 Plan members is 43.18% (including a 5.26% contribution to the HIB) and is 36.16% for 2013 Tier members (including a 4.86% contribution to the HIB).

The June 30, 2016 funding valuation reports, which provide the recommended contribution rates for Fiscal Year 2017-18, were presented by the actuary to the Retirement Board at their January 19, 2017 meeting, at which time the reports were adopted by the Board.

The District estimates that approximately 85% of the District's annual contributions are attributable to the Water System and approximately 15% are attributable to the Wastewater System.

As of June 30, 2016, collectively for the Water and Wastewater Systems, there were 1,789 active (non-retired) Plan members, 248 terminated Plan members entitled to but not yet receiving benefits and 1,630 retirees and beneficiaries receiving benefits.

Table 20 sets forth the number of active (non-retired) members, total Plan assets, District and Member contributions and retirement allowances paid in the five Fiscal Years 2012 through 2016.

Table 20
RETIREMENT SYSTEM
Active (Non-Retired) Members, Total Plan Assets, District and Member Contributions and Allowances Paid
Five Fiscal Years Ended June 30, 2016⁽¹⁾

Fiscal Year Ended June 30	Active (Non-Retired) Members ⁽²⁾	Total Plan Assets ⁽³⁾	District Contribution ⁽⁴⁾	Member Contributions	Allowances Paid From Retirement Plan ⁽⁵⁾
2012	1,927	\$ 986,972,000	\$59,651,000	\$10,723,000	\$66,843,000
2013	1,898	1,124,328,000	61,567,000	10,566,000	72,095,000
2014	1,952	1,346,888,000	70,117,000	12,133,000	78,265,000
2015	2,001	1,407,209,000	73,141,000	13,427,000	85,184,000
2016	2,037	1,418,129,000	74,672,000	14,925,000	91,571,000

⁽¹⁾ Includes Health Insurance Benefit.

Source: The District.

The Retirement System is an integral part of the District and, as noted above, the District appoints the majority of the governing body of the Retirement System and provides for its funding. Accordingly, the Retirement System's operations are reported as a Pension and Other Employee Benefit Trust Fund in the District's basic financial statements. The Retirement System also issues separately available financial statements on an annual basis. Such financial statements can be obtained from the District at 375 Eleventh Street, Oakland, California 94607.

⁽²⁾ Includes active plan members and terminated plan members entitled to but not yet receiving benefits.

⁽³⁾ Market value as of June 30 of such Fiscal Year as shown in the audited financial statements of the Retirement System.

The District estimates that approximately 85% of the District's annual contributions are attributable to the Water System and approximately 15% are attributable to the Wastewater System.

⁽⁵⁾ Includes benefits paid and refunds of contributions.

The amounts set forth in this discussion of the District's Retirement System, including, for example, actuarial accrued liabilities and funded ratios, are based upon numerous demographic and economic assumptions, including investment return rates, inflation rates, salary increase rates, cost of living adjustments, postemployment mortality, active member mortality, and rates of retirement. Prospective purchasers of the District's bonds are cautioned to review and carefully assess the reasonableness of the assumptions set forth in the documents that are cited as the sources for such information. In addition, prospective purchasers of the District's bonds are cautioned that such sources and the underlying assumptions are made as of their respective dates, and are subject to change. Prospective purchasers of the District's bonds should also be aware that some of the information presented in this discussion of the Retirement System contains forward-looking statements and the actual results of the Retirement System may differ materially from the information presented herein.

Benefits. All regular full-time employees (as well as certain job share and intermittent employees) of the District are members of the Plan. In accordance with the Retirement System Ordinance, eligible employees become members of the Plan on the first day they are physically on the job. Retirement plan benefits are generally determined by a formula based on the employee's highest two years of compensation (highest 36 months for 2013 Tier members) and the length of employment with the District. Benefits adopted by the District vest in part with members 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.

In addition to retirement benefits, the District provides post-employment health benefits assistance, administered by the Retirement System, for employees who retire from the District or their surviving spouses. As of June 30, 2016, there were 1,478 participants receiving these healthcare benefits. For participants entering the Retirement System prior to July 1, 1996, a monthly allowance of up to \$450 (up to \$550 for married retirees and retirees with domestic partners) is paid to retirees with at least five years of full-time service to reimburse the retiree-paid medical expenses (including any health, dental or long-term care insurance premiums paid by the eligible surviving spouse or domestic partner, or any health, dental or long-term care insurance premiums paid by the eligible surviving spouse or domestic partner of a retiree). Effective July 1, 1996, a 20-year vesting schedule for full benefits was implemented for all new employees. Effective January 1, 1999, retired members who had separated from the District prior to their retirement and who had at least five years of service also become eligible for the post-employment healthcare benefits based on the same vesting schedule.

Actuarial Assumptions and Funding Policy. Under the Retirement System Ordinance, the District is required to have an actuarial study performed at least every two years, but the District's current policy is to have an actuarial study performed each year. The most recent actuarial study of the Retirement System, including the pension and the HIB trusts, was performed by Segal Consulting, as of June 30, 2016.

The actuarial report provides a basis for the District Board's decision regarding the rate of contributions by the District to the Retirement System, including both the pension and the HIB trusts. The District makes its contribution using rates determined by its outside actuaries.

The Governmental Accounting Standards Board ("GASB") has issued two Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 is for plan reporting and Statement 68 is for employer reporting. The information needed to comply with Statement 67 was provided by the actuary in a separate report (*i.e.*, separate from the pension funding valuation report) dated January 11, 2017, and the information needed to comply with Statement 68 was provided by the actuary in a separate report dated August 12, 2016 (for employer reporting as of June 30, 2016). The GASB Statements require much shorter periods for recognition of non-investment gains/losses and actuarial assumption changes, as well as for recognition of investment gains/losses. The GASB

Statements provide for a complete separation between financial reporting and funding requirements for pension plans. Under the GASB statements, the District is required to report the Net Pension Liability (*i.e.*, the difference between the Total Pension Liability and the Pension Plan's Net Position or market value of assets) in its financial statements. See Note 8(G) and the Required Supplementary Information in the audited financial statements of the District included in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015" for additional information regarding the net pension liability of the District for the Retirement System.

To calculate the required contribution for each Fiscal Year, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than assumed (an actuarial loss). If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

A summary of the funding method and assumptions utilized in the actuarial study as of June 30, 2016 are described below.

<u>Funding Method</u>. 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 the ordinance governing the Retirement System. The Entry Age Cost Method is used for this purpose. Under the Entry Age Cost Method, there are two components to the total contributions: (i) the normal cost, which is the amount of contributions required to fund the benefit allocated to the current year of service (associated with active employees only), and (ii) an amortization payment on any unfunded actuarial accrued liability ("UAAL"). The normal cost is calculated on an individual basis where the entry age normal cost is calculated as the sum of the individual normal costs. The UAAL (past service liability) is amortized as a level percentage of payroll on a closed basis over the amortization periods described below. The actuarial accrued liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation.

Amortization Periods. As of June 30, 2016, the UAAL is currently being funded using a layered approach. Each layer of the UAAL established prior to July 1, 2011 is being funded over a separate decreasing 30-year period, starting from the date the layer was originally established. On or after July 1, 2011, changes in the UAAL attributable to plan amendments are amortized over separate decreasing 15-year periods; changes in the UAAL attributable to assumption or method changes are amortized over separate decreasing 25-year periods; and changes in the UAAL attributable to actuarial gains/losses (i.e., the extent to which actual overall experience deviates from the assumptions) are amortized over separate decreasing 20-year periods. Under the layered approach, any new UAAL layer that emerges between the prior and the current actuarial valuation (due to deviations between actual and expected actuarial experience, changes in actuarial assumptions used to measure the liabilities or other factors) will be determined and factored into the District's contribution rates so that it will be paid off after its respective amortization period described above.

<u>Actuarial Value of Assets (Asset Smoothing Method)</u>. Methods used to compute District contribution requirements include a five-year smoothing of the difference between the actual market return and the expected return on the market value of the assets (with further adjustments as may be required to keep the smoothed assets within 30% of market value). The impact of this will result in a "smoothed" valuation value of assets (or "Actuarial Value of Assets") that is higher or lower than the market value of the assets depending on whether the amount that is being smoothed is either a net deferred loss or a net deferred gain.

<u>Actuarial Assumptions</u>. A number of assumptions are used to calculate the costs of the Plan and to compute contribution requirements for the Plan. The principal assumptions used in preparing the pension plan and HIB funding valuation reports as of June 30, 2016 and the pension plan financial reporting (*i.e.*, GASB 67) valuation report as of June 30, 2016 include:

- 1. Investment rate of return: 7.25%.
- 2. Inflation rate: 3.00%.
- 3. Interest credited to member contributions: 7.25%.
- 4. Projected salary increases: Ranges from 9.50% to 4.00% based on years of service (includes inflation at 3.00% plus across the board salary increase of 0.50% plus merit and promotional increases).
- 5. Cost of living adjustments: 3.00%.
- 6. Increase in HIB maximum monthly allowance: The Plan does not provide for an automatic increase in the HIB allowance and no such increase is assumed in the valuation.
- 7. Additional assumptions: Additional assumptions were used regarding rates of termination from active membership, post-retirement mortality, active member mortality, disability rates and rates of retirement.

Adopted Changes in Actuarial Assumptions and Amortization Periods. Under the ordinance governing the Retirement System, the District is required to have an actuarial experience study conducted no less frequently than every four years in order to review the mortality, service and compensation experience of the members, retired members and beneficiaries of the Retirement System, over the study period. The experience study provides the factual information upon which the outside actuary makes recommendations to the District regarding the economic and demographic assumptions that provide the basis for the actuarial valuation of the assets and liabilities of the Retirement System. In November 2016, Segal Consulting completed and presented to the Retirement Board its Analysis of Actuarial Experience During the Period July 1, 2012 through June 30, 2016, for the Retirement System (the "2016 Experience Study"). The 2016 Experience Study utilized demographic data of the Plan's members and retirees from the last four actuarial valuations and provided recommendations regarding changes to the economic and demographic actuarial assumptions to be used in the June 30, 2016 and later actuarial valuations. Pursuant to the 2016 Experience Study, the actuary recommended changes in a number of the actuarial assumptions used to calculate the costs of the Plan and to compute the future contribution requirements for the Plan, including changes in the assumptions from those used in the actuarial study of the Plan as of June 30, 2015. At its November 17, 2016 meeting, the Retirement Board approved the changes in assumptions recommended by the actuary for the actuarial valuation to be performed as of June 30, 2016 (the actuarial assumptions used in the actuarial study of the Plan as of June 30, 2016 are described under "Actuarial Assumptions" above). Some of the changes in the actuarial assumptions from those used in the actuarial study of the Plan as of June 30, 2015 are as follows: (i) a reduction in the assumed investment rate of return from 7.50% to 7.25%; (ii) a reduction in the assumed interest crediting rate for member contributions from 7.50% to 7.25%; (iii) an overall reduction in the current 1955/1980 Plan retirement rates for males and an overall increase for females; and (iv) a change in the mortality rates to the RP-2014 family of mortality tables, to anticipate slightly shorter life expectancies.

In the June 30, 2016 valuation, the actuary determined the increase in the actuarial accrued liability for the pension plan (not including the HIB) due to the assumption changes (including the change in the investment return assumption from 7.50% to 7.25%) to be \$52.6 million.

Contribution History. The schedule of District contributions for each of the pension plan and the HIB plan for the last five Fiscal Years are shown in Table 21:

Table 21 RETIREMENT SYSTEM History of Contributions Five Fiscal Years Ended June 30, 2016 (Dollar Amounts in Thousands)

Pension Plan:

Fiscal Year Ended June 30:	District Contribution Rate at June 30 ⁽¹⁾	Annual Required Contribution	Actual Contribution	Percentage Contributed
2012	32.91%	\$52,156	\$52,156	100%
2013	34.46	53,795	53,795	100
2014	$38.30^{(2)}$	61,660	61,660	100
2015	38.55	64,177	64,177	100
2016	37.32	65,218	65,218	100

Health Insurance Benefit:

Fiscal Year Ended June 30:	District Contribution Rate at June 30 ⁽¹⁾	Annual Required Contribution ⁽³⁾	Actual Contribution ⁽³⁾	Percentage Contributed ⁽⁴⁾
2012	4.83%	\$11,289	\$7,762	69%
2013	5.10	11,145	8,039	72
2014	5.34	11,196	8,748	78
2015	5.45	11,254	9,272	82
2016	5.49	11,590	9,779	84

Starting with Fiscal Year Ended (FYE) June 30, 2014, this rate represents the aggregate rate for the 1955/1980 Plan and the 2013 Tier. The rate has been aggregated based on projected annual payroll from two years prior to the FYE (e.g., the FYE June 30, 2016 rate is aggregated based on June 30, 2014 projected annual payroll), except where noted.

As reflected in the funding actuarial study and shown (rounded to the nearest thousand dollars) in Table 22, the combined Actuarial Accrued Liability for pension and HIB benefits at June 30, 2016 was \$2,111,518,292 and the Actuarial Value of Assets was \$1,452,786,717, resulting in an Unfunded Actuarial Accrued Liability of \$658,731,575 and a funded ratio of the Plan under the Entry Age Cost Method of 68.8%. As described above, the Actuarial Value of Assets has been calculated using a five-year smoothing of the difference between the actual market return and the expected return on the market value of the assets. The valuation was performed in accordance with generally accepted actuarial principles and practices and the District's funding policy that was last reviewed with the Board in 2012. The assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs).

Table 22 sets forth the Actuarial Accrued Liability, Actuarial Value and Market Value of Assets, the Unfunded Actuarial Accrued Liability, and Funded Ratios as of June 30 of each of the Fiscal Years 2012 through 2016 (the year the most recent actuarial information is available).

⁽²⁾ Represents the aggregate rate for the 1955/1980 Plan and the 2013 Tier, based on the June 30, 2013 projected annual payroll (instead of the June 30, 2012 payroll) since the 2013 Tier did not become effective until January 1, 2013.

⁽³⁾ Includes an interest adjustment to the end of the year.

⁽⁴⁾ Percentage contributed was less than 100% as the District does not pre-fund the implicit retiree rate subsidy required to be valued under GASB Statements Nos. 43 and 45. See "- Schedule of Funding Progress" below.

Table 22 RETIREMENT SYSTEM

(Pension Plan and HIB Combined)

Actuarial Accrued Liability, Actuarial Value and Market Value of Assets,
Unfunded Actuarial Accrued Liability and Funded Ratios
Five Fiscal Years Ended June 30, 2016⁽¹⁾
(Dollar Amounts in Thousands)

Fiscal Year Ended June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets	Market Value of Assets	Unfunded Actuarial Accrued Liability (UAAL) ⁽²⁾	Funded Ratio on Actuarial Value	Funded Ratio on Market Value
2012	\$1,659,897	\$1,035,786	\$986,972	\$624,111	62.40%	59.46%
2013	1,750,910	1,112,370	1,124,328	638,540	63.53	64.21
2014	1,866,563	1,229,955	1,346,888	636,608	65.89	72.16
2015	1,957,833	1,350,292	1,407,209	607,541	68.97	71.88
2016	$2,111,518^{(3)}$	1,452,787	1,418,129	658,731	68.80	67.16

⁽¹⁾ Dollars rounded to nearest thousand.

Source: Segal Consulting.

As of June 30, 2016, the market value of the combined pension and HIB plan's assets was \$1,418,129,000 and the projected benefit obligation ("PBO") was \$2,061,202,000, resulting in a funded ratio of the plan under the PBO basis of 68.8%. Under the plan provisions, determination of the funded ratio on a PBO basis is required and certain cost of living increases are granted when the funded ratio of the plan is 85% or higher as calculated on the PBO basis.

Schedule of Funding Progress. As required by GASB, the District reports the schedule of funding progress for each of the pension plan and the post-employment healthcare plan (HIB), based on the results of the funding valuations. The schedule of funding progress presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The schedule of funding progress for the pension plan is set forth in Table 23.

The District estimates that approximately 85% of the UAAL is attributable to the Water System and approximately 15% is attributable to the Wastewater System. The UAAL is determined based on the Actuarial Value of Assets.

Of this amount, \$115,655 is attributable to the HIB liabilities. The HIB liabilities as calculated for GASB reporting purposes, which include the implicit retiree rate subsidy, were \$147,585 using a discount rate of 6.75%.

Table 23
PENSION PLAN
Schedule of Funding Progress
(Dollar Amounts in Thousands)

Actuarial Valuation Date June 30	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
2012	\$1,021,546	\$1,556,696	\$535,150	65.6%	\$158,847	336.9%
2013	1,095,847	1,646,534	550,687	66.6	159,246	345.8
2014	1,210,321	1,756,706	546,385	68.9	167,196	326.8
2015	1,327,113	1,845,912	518,799	71.9	174,899	296.6
2016	1,425,785	1,995,863	570,078	71.4	183,971	309.9

Source: Segal Consulting's Actuarial Valuation and Review of Pension Plan as of June 30, 2014.

The schedule of funding progress for the post-employment healthcare plan is set forth in Table 24.

The retiree health liabilities reported in the actuarial study as of June 30, 2016 (and referred to in Table 22 above) will not match those required to be used for GASB reporting purposes as shown in Table 24. The liabilities as reflected in the actuarial study have not been adjusted to include the implicit retiree rate subsidy as required under GASB reporting requirements. (Note that when premiums for active employees are determined on a pooled basis with premiums for retirees under age 65, a significant accounting obligation may exist even though the retiree under age 65 contributes most or all of the blended premium cost of the plan. The average costs for retirees if determined on a stand-alone basis is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The GASB accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.) In addition, the liabilities for GASB reporting purposes for the HIB portion of the obligations shown below were determined based upon a lower discount rate (*i.e.*, 6.75%) than the 7.25% investment rate of return used in Segal Consulting's prefunding study. The liabilities calculated for GASB reporting purposes shown in Table 24 are therefore higher than those reflected in the actuarial study as of June 30, 2016 and described above.

Table 24
POST-EMPLOYMENT HEALTHCARE BENEFIT (HIB)
Schedule of Funding Progress
(Dollar Amounts in Thousands)

Actuarial Valuation Date June 30	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
2012	\$14,240	\$138,240	\$123,999	10.3%	\$158,847	78.1%
2013	16,522	138,120	121,598	12.0	159,246	76.4
2014	19,634	140,416	120,782	14.0	167,196	72.2
2015	23,179	143,946	120,767	16.1	174,899	69.0
2016	27,002	147,585	120,583	18.3	183,971	65.5

Source: Segal Consulting's Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2016 in accordance with GASB Statements No. 43 and 45.

Net Pension Liability. Under GASB 67, the pension plan is required to disclose the Net Pension Liability for financial reporting purposes. When measuring pension liability, GASB uses the same actuarial cost method (entry age method) and the same type of discount rate (expected return on assets) as the District uses for funding. This means that the Total Pension Liability ("TPL") measure for financial reporting is determined on the same basis as the District's AAL measure for funding. The Net Pension Liability ("NPL") is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is the same as the UAAL calculated on a market value basis. The Net Pension Liability as of June 30, 2016 and June 30, 2015 is set forth in Table 25.

Table 25
PENSION PLAN
Net Pension Liability

	June 30, 2016	June 30, 2015
Total pension liability	\$ 1,995,863	\$ 1,845,912
Plan fiduciary net position	(1,391,771)	(1,383,053)
Net pension liability	\$ 604,092	\$ 462,859
Plan fiduciary net position as a %		
of the total pension liability	69.73%	74.93%

The NPL was measured as of June 30, 2016 and 2015. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total Pension Liability was determined based upon the results of the actuarial valuations as of June 30, 2016 and 2015, respectively.

The discount rate used to determine the Total Pension Liability was 7.25% as of June 30, 2016 and 7.50% as of June 30, 2015, following the same assumptions used by the System in the pension funding valuations as of June 30, 2016 and June 30, 2015, respectively. It should be noted that, according to GASB, the discount rate used for financial reporting purposes should be based on the long-term expected rate of return on a retirement system's investments, just as it is for funding. However, GASB requires that this assumption should be net of investment expenses but not net of administrative expenses (i.e., without reduction for administrative expenses). Currently, the District's investment return assumption used for the annual funding valuation is developed net of both investment and administrative expenses.

Additional information concerning the Retirement System may be found in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."



AGENDA NO.
MEETING DATE

13.2.	
April 25, 2017	

TITLE	EBMUD SERIES 2017A WASTEWATER REVENUE/REFUNDING BO	NDS
□ MOTION	■ RESOLUTION ■ □ ORDINANCE	

RECOMMENDED ACTION

Authorize and approve the issuance of EBMUD Wastewater System Revenue/Refunding Bonds, Series 2017A in an amount not to exceed \$80 million, and approve the form and authorize the execution of certain documents, including a Supplemental Indenture, in connection with the issuance, securing and sale of such bonds.

SUMMARY

The Series 2017A Wastewater Bonds will fund Wastewater System capital improvements for FY 2018, may refund portions of the District's outstanding revenue bonds, and will pay bond issuance costs.

The bond resolution authorizes the issuance of the bonds in one or more series and approves the Preliminary Official Statement and Official Statement that will be used to market the bonds to investors, and other documents supporting the bond issuance, including a Supplemental Indenture, a continuing disclosure agreement, a Notice of Intention to Sell and Official Notice of Sale of the bonds (in connection with a competitive sale of the bonds) and escrow agreements (in connection with the potential refunding of bonds), and authorizes their execution. The bond resolution authorizes the Director of Finance to determine whether to sell the bonds by competitive or negotiated sale and, in the event the bonds are to be sold by negotiated sale, authorizes the execution of a bond purchase contract in connection with such sale. Currently, the bonds are planned to be sold through a competitive sale. It also delegates authority to the General Manager, the Director of Finance or the Treasury Manager or the designee of any of such officers to engage The Bank of New York Mellon Trust Company, N.A. (referred to as Bank of New York), the District's bond trustee, as trustee for the Series 2017A Wastewater Bonds, and as escrow agent under any escrow agreements for refunded bonds. The bond resolution further authorizes the General Manager, the Director of Finance, the Treasury Manager and the other proper officers of the District to take the necessary actions and execute other agreements, documents and certificates in order to provide for the sale and delivery of the bonds. The bonds are scheduled to be sold in June 2017.

This item was reviewed with the Finance/Administration Committee on April 25, 2017.

Funds Available:	Budget Code:	
DEPARTMENT SUBMITTING Finance	DEPARTMENT MANAGER or DIRECTOR Sophia D. Skoda	APPROVED Meterofer R. Cerro General Manager

Contact the Office of the District Secretary with questions about completing or submitting this form.

EBMUD Series 2017A Wastewater Revenue Bonds April 25, 2017 Page 2

A copy of the bond resolution is attached. Copies of the other documents have been provided on the attached CD and paper copies are available from the Office of the Secretary upon request.

DISCUSSION

The proposed Series 2017A Wastewater System Revenue/Refunding Bonds will fund Wastewater System capital improvements, may refund certain portions of the District's outstanding revenue bonds, and will pay for costs of issuance of the bonds. The Series 2017A Wastewater Bonds are proposed to fund capital improvements for FY 2018. The potential refundings include Series 2007B Wastewater Bonds and Series 2010A Wastewater Bonds and may include other outstanding Wastewater Bonds to the extent the debt service savings threshold described below can be achieved. The potential refunded amounts for these two series are roughly \$23.9 million and \$34.1 million, respectively. The District will only refund bonds that provide net present value savings equal to at least 3 percent of the refunded par amount. Based on current market conditions, approximately \$23.9 million of Series 2007B Wastewater Bonds and \$27.9 million of Series 2010A Wastewater Bonds meet this savings threshold at roughly 12 percent savings. The refunding portions of the Series 2017A Wastewater Bonds will be amortized so that the final maturity of the refunded bonds is not extended.

A summary of the key bond documents is as follows:

- <u>Authorizing Resolution</u> relating to the Series 2017A Wastewater Bonds authorizes the issuance of the Series 2017A Wastewater Bonds in one or more series or subseries in an amount not to exceed \$80 million (including not to exceed \$22 million to be issued for "new money" purposes to finance or reimburse the District for FY 2018 capital expenditures), with a final maturity not later than June 1, 2047 and at a true interest cost to the District of not in excess of 5.5 percent (and with the net present value savings to the District in connection with any refunding bonds to be not less than 3 percent of the par amount of the refunded bonds).
- Nineteenth Supplemental Indenture relating to the Series 2017A Wastewater Bonds supplements the Wastewater System Bond Indenture and provides the terms of the Series 2017A Wastewater Bonds, including the principal and interest payment dates and the interest rates on the new Series 2017A Wastewater Bonds. Under the Wastewater System Bond Indenture, the District is obligated to set rates to provide net revenues sufficient to cover 1.1 times the annual debt service on all of the outstanding Wastewater System bonds, which will include the Series 2017A Wastewater Bonds.
- Notice of Intention to Sell will be published in the local newspaper and in The Bond Buyer, a financial publication for the municipal bond industry, in order to alert the potential underwriting firms interested in purchasing the District's Series 2017A Wastewater Bonds of the upcoming competitive sale.
- Official Notice of Sale will be distributed to potential bidders for the purchase of the Series 2017A
 Wastewater Bonds and describes the terms upon which the District will offer the Series 2017A
 Wastewater Bonds for competitive sale, the parameters under which the electronic bidding for the

sale of the Series 2017A Wastewater Bonds will be conducted, summarizes certain terms of the Series 2017A Wastewater Bonds, and directs the potential bidders for the Series 2017A Wastewater Bonds on how to obtain the District's Preliminary Official Statement describing the bonds and the security therefor in more detail. In the event the Director of Finance determines to sell the Series 2017A Wastewater Bonds by negotiated sale, in lieu of the Notice of Intention to Sell and Official Notice of Sale, the District would execute a bond purchase contract with the selected underwriters on substantially the same terms as the form of purchase contract for the upcoming Water System bond sale. The Authorizing Resolution provides that in the event of a negotiated sale of the Series 2017A Wastewater Bonds, the discount to be paid to the selected underwriters in connection with their purchase of the bonds shall not exceed 0.4 percent of the aggregate principal amount of the bonds.

- Escrow Agreements relate to the refunding and defeasance of the District's bonds to be refunded by the Series 2017A Wastewater Bonds and provides for the deposit, investment and application of proceeds of the Series 2017A Wastewater Bonds to refund and redeem such refunded bonds to and including the applicable redemption date therefor. Pursuant to the Authorizing Resolution, the General Manager, the Director of Finance or the Treasury Manager of the District (or another duly authorized designee of the General Manager) is authorized to determine which bonds of the District are to be refunded, subject to the requirement that the net present value savings to be realized by the District in connection with any such refunding be not less than 3 percent of the par amount of the refunded bonds. Under the Escrow Agreements, the Bank of New York, as escrow agent, is entitled to receive compensation for its services and receives certain indemnification from the District in connection with the transactions being undertaken similar to the indemnification afforded the Bank of New York in its role as trustee for the bonds under the Wastewater System Bond Indenture.
- Continuing Disclosure Agreement obligates the District to provide certain annual reports regarding the District and the Wastewater System and notices of certain events in connection with the Series 2017A Wastewater Bonds in the secondary market. Under the securities laws, the underwriting firm or firms that is the winning bidder for the purchase of the Series 2017A Wastewater Bonds is required to obtain this commitment to provide ongoing disclosure from the District in connection with purchasing the District's bonds. Under the Continuing Disclosure Agreement, the Bank of New York, as dissemination agent, is entitled to receive compensation for its services and receives certain indemnification from the District in connection with its services similar to the indemnification afforded the Bank of New York in its role as trustee for the bonds under the Wastewater System Bond Indenture.
- Preliminary Official Statement (including Appendix A) is the disclosure document prepared by the District that provides information about the District and the Wastewater System (primarily in Appendix A) and the terms of the bond sale to potential investors. A final Official Statement will be prepared after the sale of the bonds for distribution to actual purchasers of the Series 2017A Wastewater Bonds. Under the federal securities laws, these disclosure documents are required to contain all information that would be material to investors in making their decision whether to

EBMUD Series 2017A Wastewater Revenue Bonds April 25, 2017 Page 4

purchase the Districts bonds, and must not contain an untrue statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make such information therein, in the light of the circumstances under which it was presented, not misleading.

FISCAL IMPACT

At current market rates the District's debt service costs are expected to be consistent with budget estimates and net present value refunding savings are estimated at \$6 million. Cost of issuance is estimated at approximately \$465,500.

ALTERNATIVE

<u>Do not issue the proposed bonds</u>. This alternative is not recommended because without the bond issue the District would need to fund capital improvement projects from cash on hand thereby decreasing the District's liquidity, which in turn would weaken the District's credit profile and put upward pressure on future borrowing costs.

ARC:SDS:TJG

Attachments

I:\Sec\2017 Board Related Items\042517 Board Agenda Items\FIN - BD1 - EBMUD Series 2017A Wastewater Revenue Bonds 042517.docx

DESOI LITION NO	Office of General Counsel
RESOLUTION NO.	V -

AUTHORIZE AND APPROVE THE ISSUANCE OF NOT TO EXCEED \$80 MILLION AGGREGATE PRINCIPAL AMOUNT OF EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A; APPROVE THE FORM AND AUTHORIZE THE EXECUTION OF CERTAIN DOCUMENTS IN CONNECTION WITH THE ISSUANCE, SECURING AND SALE OF SUCH BONDS; AND APPROVE CERTAIN ACTIONS RELATING THERETO

Introduced by Director

; Seconded by Director

WHEREAS, the East Bay Municipal Utility District (the "District") is authorized by Section 12850 *et seq.* of the Public Utilities Code of the State of California (the "Act") to issue revenue bonds; and

WHEREAS, the District is authorized by Section 53580 et. seq. of the Government Code of the State of California (the "Refunding Act") to issue refunding bonds; and

WHEREAS, pursuant to authority granted under the Act, the District has entered into a Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990 (the "Bond Indenture"), by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented; and

WHEREAS, the Bond Indenture provides that the District may issue additional wastewater system revenue bonds as well as refunding Bonds thereunder (any such bonds referred to herein as "Bonds") from time to time as authorized by a supplemental indenture; and

WHEREAS, pursuant to Resolution No. 33593-07 adopted by the Board of Directors (the "Board") of the District on April 10, 2007, the District has heretofore authorized and issued its Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds"), in the aggregate principal amount of \$46,670,000, pursuant to an Eighth Supplemental Indenture, dated as of June 1, 2007, supplementing the Bond Indenture, of which \$26,920,000 aggregate principal amount is outstanding as of the date hereof (\$3,005,000 of which matures on June 1, 2017 and \$23,915,000 of which is subject to optional redemption on or after such date); and

WHEREAS, pursuant to Resolution No. 33786-10 adopted by the Board on September 17, 2010, the District has heretofore authorized and issued its Wastewater System Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds"), in the aggregate principal amount of \$59,095,000, pursuant to a Thirteenth Supplemental Indenture, dated as of October 1, 2010, supplementing the Bond Indenture, of which \$44,295,000 aggregate principal amount is

outstanding as of the date hereof (\$2,390,000 of which matures on June 1, 2017 and \$34,100,000 of which is subject to optional redemption on or after June 1, 2020); and

WHEREAS, pursuant to Resolution No. 33607-07 adopted by the Board on June 12, 2007, the Board declared its intention to authorize the issuance of up to \$100,000,000 of wastewater system revenue bonds; and, as of the date hereof, \$95,640,000 of wastewater system revenue bonds have been issued under the authority of Resolution No. 33607-07; and

WHEREAS, pursuant to Resolution No. 33871-10 adopted by the Board on September 14, 2010, the Board declared its intention to authorize the issuance of up to \$200,000,000 of wastewater system revenue bonds; and, as of the date hereof, no wastewater system revenue bonds have been issued under the authority of Resolution No. 33871-10; and

WHEREAS, pursuant to the Act, the Refunding Act and the Bond Indenture, the Board has determined to authorize the issuance of Bonds to be designated "East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A," with such further or other designation as may be determined appropriate at the time of issuance of such bonds, if any, to further identify such bonds (herein called the "Series 2017A Bonds") in an aggregate principal amount not to exceed \$80,000,000 (of which amount not to exceed \$4,360,000 "new money" bonds shall be issued under the authority of Resolution No. 33607-07 and not to exceed \$17,640,000 "new money" bonds shall be issued under the authority of Resolution No. 33871-10) to be issued pursuant to a Nineteenth Supplemental Indenture (as hereinafter defined), by and between the District and the Trustee; and

WHEREAS, the Series 2017A Bonds are being issued in order to provide moneys (i) to finance and/or reimburse the District for certain costs of improvements to the wastewater collection, treatment and disposal system of the District, (ii) to fund a portion of interest accrued with respect to the Series 2017A Bonds during the period of acquisition and construction of such improvements, if so determined by the District, (iii) to refund all or a portion of the outstanding Series 2007B Bonds, the outstanding Series 2010A Bonds and/or any other series of outstanding Bonds eligible for refunding, subject to the parameters of this Resolution, as determined by the officers of the District in accordance with Section 10 of this Resolution (such Bonds to be refunded, the "Refunded Bonds"), and (iv) to pay costs of issuance in connection with the Series 2017A Bonds; and

WHEREAS, the Series 2017A Bonds may be sold either at a public sale by competitive bidding or by negotiated sale to such underwriter or underwriters as may be selected by the Director of Finance of the District (the "Underwriters"), all as the District shall determine, upon consultation with its Co-Municipal Advisors (as hereinafter defined), to be in the best interests of the District at the time of sale of the Series 2017A Bonds; and

WHEREAS, in order to provide for the refunding of the outstanding Refunded Bonds, the District intends to enter into one or more escrow agreements with the Trustee, as escrow agent, relating to the defeasance of such Refunded Bonds; and

WHEREAS, in order to provide a continuing disclosure undertaking pursuant to the requirements promulgated under Rule 15c2-12 of the Securities and Exchange Commission in connection with the Series 2017A Bonds, the District intends to enter into a continuing disclosure agreement, by and between the District and the Trustee; and

WHEREAS, in connection with any sale of the Series 2017A Bonds, there shall be distributed a preliminary and final official statement (including any supplements or amendments thereto) relating to the Series 2017A Bonds to prospective and actual purchasers of the Series 2017A Bonds; and

WHEREAS, it is desirable that the Board provide for the issuance, securing and sale of the Series 2017A Bonds at this time; and

WHEREAS, there has been presented to this Board meeting proposed forms of certain financing documents relating to the Series 2017A Bonds and the issuance, sale and delivery thereof;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of East Bay Municipal Utility District, as follows:

Section 1. Recitals True and Correct. The Board hereby finds and determines that the foregoing recitals are true and correct.

Section 2. Authorization of Series 2017A Bonds. The issuance of the Series 2017A Bonds in one or more series or subseries on the terms and conditions set forth in, and subject to the limitations specified in, the Nineteenth Supplemental Indenture is hereby authorized and approved. The Series 2017A Bonds will be dated, will bear interest at the rates, will mature on the dates, will be issued in the form, will be subject to redemption (if applicable), and will be as otherwise provided in the Nineteenth Supplemental Indenture as the same is completed as provided in this Resolution. The proposed form of the Series 2017A Bonds, as set forth in the Nineteenth Supplemental Indenture, is hereby approved and the President of the Board of Directors of the District is hereby authorized and directed to execute (by manual or facsimile signature) for and on behalf of the District the Series 2017A Bonds in substantially such form and the Secretary of the District is authorized and directed to attest (by manual or facsimile signature) thereto, and the Trustee is hereby authorized and directed to authenticate and deliver the Series 2017A Bonds to the purchaser or purchasers thereof in accordance with the Nineteenth Supplemental Indenture; provided, however, that (i) the aggregate principal amount of Series 2017A Bonds shall not exceed \$80,000,000, (ii) the final maturity of any of the Series 2017A Bonds shall not be later than June 1, 2047, (iii) the true interest cost to the District of the Series 2017A Bonds shall not exceed 5.50% per annum; and (iv) the total net present value of the savings to the District from the delivery of any Series 2017A Bonds issued for the purpose of refunding shall be not less than three percent (3.00%) of the aggregate par amount of the Refunded Bonds refunded thereby.

Section 3. <u>Approval of Nineteenth Supplemental</u> <u>Indenture</u>. The General Manager, the Director of Finance or the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District, and the Secretary of the

District shall attest thereto, a supplemental indenture to the Bond Indenture in connection with the issuance of the Series 2017A Bonds (the herein-referenced Nineteenth Supplemental Indenture), in substantially the form as submitted to this meeting, with such changes therein (and additions thereto to reflect the terms of sale of the Series 2017A Bonds) as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Norton Rose Fulbright US LLP and Curls Bartling P.C., the District's Co-Bond Counsel (such approval to be evidenced by the execution and delivery thereof). The supplemental indenture, as executed and delivered (and numbered such consecutive number as may be appropriate at the time of issuance of the Series 2017A Bonds), is herein referred to as the "Nineteenth Supplemental Indenture" and such Nineteenth Supplemental Indenture is hereby approved.

Section 4. Procedure for Public Sale of Series 2017A Bonds. With respect to the public sale of the Series 2017A Bonds by competitive bidding, electronic proposals for the purchase of the Series 2017A Bonds shall be received by the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers, at the time and place determined as provided in the Notice of Intention to Sell Bonds and Official Notice of Sale published, posted and/or distributed in connection with any such sale of the Series 2017A Bonds. Any of the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers is hereby authorized to accept bids for any one or more series or subseries of Series 2017A Bonds (on any of a maturity-by-maturity basis, series-by-series basis, aggregate basis, or any combination thereof, as determined by the General Manager, the Director of Finance or the Treasury Manager) at the time of the proposed sale of the Series 2017A Bonds and to award the Series 2017A Bonds on the basis of the lowest true interest cost to the District in accordance with the Official Notice of Sale for Series 2017A Bonds.

In connection with the sale of the Series 2017A Bonds, the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers, upon the advice of Montague DeRose and Associates, LLC and Backstrom McCarley Berry & Co, the District's co-municipal advisors (together, the "Co-Municipal Advisors"), are hereby also authorized to reschedule or cancel the sale of the Series 2017A Bonds and to make announcements thereof as they deem appropriate, or to reject any or all bids for the Series 2017A Bonds all as in accordance with the applicable Official Notice of Sale.

Section 5. Approval of Notice of Intention to Sell Bonds. In connection with the public sale of the Series 2017A Bonds by competitive bidding, the publication, posting and/or public distribution by or on behalf of the District of a Notice of Intention to Sell Bonds as hereinafter provided is hereby approved. The Notice of Intention to Sell Bonds for the Series 2017A Bonds, as published, posted and/or distributed, shall be in substantially the form as submitted to this meeting, with such changes therein (and additions thereto to reflect the terms of sale of the Series 2017A Bonds provided for thereunder) as any of the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers shall approve after consultation with the District's General Counsel and Co-Bond Counsel (such approval to be evidenced by the publication, posting and/or public distribution thereof). Any of the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers is hereby further authorized and directed, for and in the name and on behalf of the District, to cause the

Notice of Intention to Sell Bonds the Series 2017A Bonds to be published in substantially such form by one insertion in (i) The Bond Buyer, a financial publication generally circulated throughout the State of California or reasonably expected to be disseminated among prospective bidders for the securities, and (ii) The Oakland Tribune, at least five (5) days prior to the date of sale of the Series 2017A Bonds or in such additional or other publications and at such additional or other dates or times as the District's Co-Municipal Advisors and/or Co-Bond Counsel may advise to be necessary or convenient therefor.

Section 6. Official Notice of Sale. In connection with the public sale of the Series 2017A Bonds by competitive bidding, the publication, posting and/or public distribution by or on behalf of the District of an Official Notice of Sale for the Series 2017A Bonds is hereby approved. The Official Notice of Sale for the Series 2017A Bonds, as published, posted and/or distributed, shall be in substantially the form as submitted to this meeting, with such changes therein (and additions thereto to reflect the terms of sale of the Series 2017A Bonds provided for thereunder) as the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers shall approve after consultation with the District's General Counsel and Co-Bond Counsel (such approval to be evidenced by the publication, posting and/or public distribution thereof).

Section 7. <u>Approval of Escrow Agreements</u>. The General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District one or more escrow agreements, in substantially the form of the escrow agreements submitted to this meeting, with such changes therein as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel, such approval to be evidenced by the execution and delivery thereof. Each such escrow agreement, as executed and delivered, is hereinafter referred to as the "Escrow Agreements" and such Escrow Agreements are hereby approved.

Section 8. Approval of Continuing Disclosure Agreement. The General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District a continuing disclosure agreement, in substantially the form as submitted to this meeting, with such changes therein as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel, such approval to be evidenced by the execution and delivery thereof. The continuing disclosure agreement, as executed and delivered, is hereinafter referred to as the "Continuing Disclosure Agreement" and such Continuing Disclosure Agreement is hereby approved.

Section 9. <u>Approval of Preliminary Official Statement and Official Statement.</u> The Board hereby approves the form of preliminary official statement of the District relating to the Series 2017A Bonds, in substantially the form as submitted to this meeting, with such additions thereto and changes therein (including such changes and additions to reflect the terms of the Series 2017A Bonds) as are approved by the General Manager, the Director of Finance or the Treasury Manager after consultation with the District's General Counsel and Co-Bond Counsel. The Director of Finance, the Treasury Manager or any duly authorized designee of the Director of

Finance designated by the Director of Finance in writing to act on behalf of such officer for such purpose, is hereby authorized to authorize the District's Co-Municipal Advisors or the Underwriters, as applicable, to distribute or cause to be distributed (via written format and/or through electronic means) in connection with the sale of Series 2017A Bonds such preliminary official statement to prospective bidders for, and/or purchasers of, the Series 2017A Bonds, respectively, together with, in the case of Series 2017A Bonds to be sold at public sale by competitive bidding, copies of the Official Notice of Sale hereinabove approved. The General Manager, the Director of Finance or the Treasury Manager or any designee of the Director of Finance designated by the Director of Finance in writing to act on behalf of such officer for such purpose is hereby authorized to certify that the preliminary official statement is as of its date "deemed final" for purposes of Rule 15c2-12 of the Securities and Exchange Commission.

The General Manager, the Director of Finance, the Treasury Manager or any designee of the General Manager designated by the General Manager in writing to act on behalf of such officer for such purpose is hereby authorized to cause to be prepared and to execute for and on behalf of the District a final official statement in substantially the form of the preliminary official statement with such changes therein and additions or supplements thereto to reflect the terms of the sale of the Series 2017A Bonds and to comply with applicable federal securities laws as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel, such approval to be evidenced by the execution and delivery thereof. The Director of Finance, the Treasury Manager or any duly authorized designee of the Director of Finance designated by the Director of Finance in writing to act on behalf of such officer for such purpose, is hereby authorized to authorize the winning bidder for, or the Underwriters of, the Series 2017A Bonds, as applicable, to distribute (via written format and/or through electronic means) the final official statement (and any supplement thereto) in connection with the sale and delivery of the Series 2017A Bonds.

Section 10. <u>Authorization to Make Certain Determinations in Connection with the Series 2017A Bonds.</u> Notwithstanding anything in this Resolution to the contrary but subject to the parameters set forth herein, the General Manager, the Director of Finance, the Treasury Manager or any duly authorized designee of the General Manager designated by the General Manager in writing to act on behalf of such officer is hereby authorized to determine the outstanding Bonds of the District to be refunded, which may include all or a portion of the District's other outstanding Bonds in addition to the Series 2007B Bonds and Series 2010A Bonds, which determination shall be made taking into account the advice of the District's Co-Municipal Advisors and on the basis of what bond structure in light of the existing market conditions is in the best interest of the District, which determinations shall be conclusively evidenced by the issuance and delivery of the Series 2017A Bonds. In addition, the Director of Finance is hereby authorized to determine whether the Series 2017A Bonds or any series or subseries of the Series 2017A Bonds shall be designated and sold as "green bonds."

The Director of Finance is hereby authorized to determine whether it shall be in the best interests of the District to sell the Series 2017A Bonds at a public sale by competitive bidding or by a negotiated sale to the Underwriters for reoffering (or in such combination of public and/or negotiated sale with respect to the Series 2017A Bonds if issued in multiple series), which determination shall be made taking into account the advice of the District's Co-Municipal

Advisors and the market conditions existing at the time of sale, subject to the parameters set forth in this Resolution.

With respect to any Series 2017A Bonds to be sold by negotiated sale as so determined by the Director of Finance in accordance with this Section 10, the General Manager, the Director of Finance, the Treasury Manager or the designee of any of such officers is hereby authorized and directed to execute for and on behalf of the District one or more bond purchase contract(s), in substantially the form of purchase contract executed and delivered by the District in connection with the issuance of its Wastewater System Revenue Refunding Bonds, Series 2015, with such necessary changes to reflect the characteristics of the Series 2017A Bonds, and any other changes, insertions and omissions (and additions thereto to reflect the terms of the sale of the Series 2017A Bonds) as the General Manager, the Director of Finance or the Treasury Manager shall approve after consultation with the District's General Counsel and Co-Bond Counsel (such approval to be evidenced by the execution and delivery thereof); provided, however, that the Underwriters' discount with respect to the Series 2017A Bonds purchased thereunder may not exceed 0.40% of the aggregate principal amount of the Series 2017A Bonds purchased thereunder. Each such purchase contract, as executed and delivered, is hereinafter referred to as the "Purchase Contract" and such Purchase Contract is hereby approved.

Section 11. Additional Actions. The General Manager, the Director of Finance, the Treasury Manager and all such other proper officers of the District be and they hereby are authorized, individually and collectively, to take all actions and execute any and all documents necessary: to engage The Bank of New York Mellon Trust Company, N.A. as trustee and paying agent under the Nineteenth Supplemental Indenture and as escrow agent under the Escrow Agreements; to effect the sale and delivery of the Series 2017A Bonds pursuant to the Bond Indenture as supplemented and the Official Notice of Sale (as applicable); and to do any and all things and to execute and deliver such other agreements, documents and certificates (including without limitation, executing and delivering one or more tax certificates relating to the Series 2017A Bonds and/or any investment agreements relating to the investment of the Series 2017A Bond proceeds, and taking any and all actions to provide for the giving of written directions and notices and the securing of any necessary third party approvals in connection with the issuance of the Series 2017A Bonds and the refunding of the Refunded Bonds) as may be necessary, convenient, or advisable in order to consummate the sale, execution and delivery of the Series 2017A Bonds and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, the Series 2017A Bonds, the Bond Indenture, the Nineteenth Supplemental Indenture, the Notice of Intention to Sell (as applicable), the Official Notice of Sale (as applicable), the Purchase Contract (as applicable), the Continuing Disclosure Agreement, the Escrow Agreements, the preliminary official statement(s) and the final official statement(s) and

designees are hereby ratified, confirmed and approved.	•
ADOPTED this 25 th day of April, 2017 by the following v	vote:
AYES:	
NOES:	
ABSENT:	
ABSTAIN:	
ATTEST:	President
Secretary	
APPROVED AS TO FORM AND PROCEDURE:	
General Counsel	

the transactions herein authorized. All such actions heretofore taken by such officers or their

{00016365;1}

NINETEENTH SUPPLEMENTAL INDENTURE

between

EAST BAY MUNICIPAL UTILITY DISTRICT

and

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A. as Successor Trustee

Dated as of June 1, 2017

(Supplemental to the Wastewater System Subordinated Revenue Bond Indenture dated as of April 1, 1990)

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SECTION 35.17

Nineteenth Supplemental Indenture
(Supplemental to the Wastewater System
Subordinated Revenue Bond Indenture dated
as of April 1, 1990)
Authorizing the Issuance of

\$_____ Aggregate Principal Amount of
East Bay Municipal Utility District
Wastewater System Revenue/Refunding Bonds, Series 2017A

This Nineteenth Supplemental Indenture, dated as of June 1, 2017 (the "Nineteenth Supplemental Indenture"), between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee");

WITNESETH:

WHEREAS, this Nineteenth Supplemental Indenture is supplemental to the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented (the "Indenture"), between the District and the Trustee, providing for the issuance of bonds initially designated as "Wastewater System Subordinated Revenue Bonds" and subsequent to the execution and delivery of the Twelfth Supplemental Indenture designated as "Wastewater System Revenue Bonds" (the "Bonds");

WHEREAS, in accordance with the Indenture there has been issued, among other Bonds, (i) \$46,670,000 aggregate principal amount of Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds"), pursuant to the Eighth Supplemental Indenture, dated as of June 1, 2007, between the District and the Trustee, of which \$23,915,000 principal amount is Outstanding as of the date hereof; and (ii) \$58,095,000 aggregate principal amount of Wastewater System Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds"), pursuant to the Thirteenth Supplemental Indenture, dated as of October 1, 2010, between the District and the Trustee, of which \$41,905,000 principal amount is Outstanding as of the date hereof; {reference other refunded bonds if additional candidates added};

WHEREAS, the Indenture provides that the District may issue additional Bonds as well as refunding Bonds from time to time as authorized by a Supplemental Indenture;

WHEREAS, the District has previously authorized the issuance of up to \$100,000,000 of wastewater system revenue bonds, pursuant to Resolution No. 33607-07 adopted by the Board on June 12, 2007, and, as of the date hereof, \$95,640,000 of wastewater system revenue bonds have been issued under the authority of Resolution No. 33607-07;

WHEREAS, the District has previously authorized the issuance of up to \$200,000,000 of wastewater system revenue bonds, pursuant to Resolution No. 33871-10 adopted by the Board on September 14, 2010, and, as of the date hereof, no wastewater system revenue bonds have been issued under the authority of Resolution No. 33871-10;

WHEREAS, the District has determined to issue its Wastewater System Revenue/Refunding Bonds, Series 2017A in the aggregate principal amount of \$______ (the "Series 2017A Bonds") pursuant to this Nineteenth Supplemental Indenture for the purpose of providing moneys to (i) finance costs (or to reimburse the District for costs) of various improvements to the Wastewater System, (ii) refund all of the outstanding Series 2007B Bonds and a portion of the outstanding Series 2010A Bonds {reference to additional refunded bonds added, if any}, and (iii) pay Costs of Issuance in connection with the delivery of the Series 2017A Bonds;

WHEREAS, \$____ principal amount of the Series 2017A Bonds is being issued for the purpose of financing improvements to the Wastewater System and the allocable portion of the funding of the Costs of Issuance in connection therewith, and \$4,360,000 of such principal amount is being issued under and pursuant to the authority of Resolution No. 33607-07 and \$____ of such principal amount is being issued under and pursuant to the authority of Resolution No. 33871-10; and

WHEREAS, the Indenture creates a valid and binding pledge and assignment of and security interest in the Subordinated Wastewater Revenues and all amounts held by the Trustee under the Indenture (except for amounts held in the Rebate Fund) for the payment of the Bonds as and to the extent provided therein in accordance with the terms thereof without the need for any physical delivery, recordation, filing or further act, in accordance with Section 5451 of the Government Code of the State of California:

NOW, THEREFORE, the parties hereto agree, as follows:

ARTICLE XXXV

SERIES 2017A BONDS

SECTION 35.01 <u>Definitions</u>. The terms defined in this Section shall, for all purposes of this Nineteenth Supplemental Indenture and of any certificate, opinion or other document herein mentioned, have the meanings herein specified, to be equally applicable to both the singular and plural forms of any of the terms herein defined. Terms defined in the Indenture not otherwise defined herein shall have the meanings specified therein.

"Beneficial Owner" means any Person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Series 2017A Bond (including any Person holding a Series 2017A Bond through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Series 2017A Bond for federal income tax purposes.

"Book-Entry System" means the system maintained by the Securities Depository and described in Section 35.03 hereof.

"Closing Date" means the date of delivery of the Series 2017A Bonds to the Initial Purchaser thereof, against payment therefor, such date being June ____, 2017.

"Continuing Disclosure Agreement" means any continuing disclosure agreement entered into by the District and the Trustee in connection with the Series 2017A Bonds in order to comply with the continuing disclosure requirements promulgated under S.E.C. Rule 15c2-12.

"DTC" means The Depository Trust Company, New York, New York, and its successors and assigns.

"Initial Purchaser" means, _____, as the initial purchaser of the Series 2017A Bonds.

"Representation Letter" means the Letter of Representations from the District to DTC relating to the Book-Entry System for the Series 2017A Bonds.

"Securities Depository" means DTC or, if applicable, any successor securities depository appointed pursuant to Section 35.03 hereof.

"Securities Depository Participant" means any broker-dealer, bank or other financial institution for which a Securities Depository holds Series 2017A Bonds as Securities Depository from time to time.

"Series 2007B Bonds Escrow Agreement" means the Escrow Agreement relating to the defeasance of all of the East Bay Municipal Utility District Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B, dated as of June 1, 2017, by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent and as trustee for the Series 2007B Bonds.

"Series 2010A Bonds Escrow Agreement" means the Escrow Agreement relating to the defeasance of a portion of the East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2010A, dated as of June 1, 2017, by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent and as trustee for the Series 2010A Bonds.

"Series 2017A Bonds" means the East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A.

"Series 2017A Water System Fund" means the fund by that name established pursuant to Section 35.13 hereof.

SECTION 35.02 Authorization.

(A) <u>Designation of Bonds</u>. A twenty-third Series of Bonds to be issued under the Indenture is hereby created. Such Series of Bonds shall be known as the "East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A (herein referred to as the "Series 2017A Bonds"). The Series 2017A Bonds shall be issued in the aggregate principal amount of \$_____.

The Series 2017A Bonds shall be issued in accordance with the Act and pursuant to Resolution No. ____ adopted by the Board on [April 25], 2017, and this Nineteenth Supplemental Indenture. The Series 2017A Bonds shall be issued for the purpose of providing

moneys to (i) finance costs (or to reimburse the District for costs) of various improvements to the Wastewater System, (ii) refund all of the outstanding Series 2007B Bonds and a portion of the outstanding Series 2010A Bonds {reference to additional refunded bonds added, if any}, and (iii) pay Costs of Issuance in connection with the delivery of the Series 2017A Bonds.

The Series 2017A Bonds shall be Current Interest Indebtedness.

- (B) Registered Form. The Series 2017A Bonds shall be issued in fully registered form and shall be initially registered in the name of "Cede & Co.," as nominee of DTC in accordance with Section 35.03 hereof. The Series 2017A Bonds shall be evidenced by one bond maturing on each of the maturity dates of the Series 2017A Bonds as set forth in Section 35.02(C) hereof. Each Series 2017A Bond may be assigned by the Trustee a distinctive number or letter and number, and a record of the same shall be maintained by the Trustee. Registered ownership of the Series 2017A Bonds, or any portion thereof, may not thereafter be transferred except as set forth in Section 35.03 hereof.
- (C) <u>Maturities; Interest Rates; Denominations</u>. The Series 2017A Bonds shall be dated the date of delivery thereof, shall be issued in denominations of \$5,000 principal amount or any integral multiple thereof, and shall bear interest from the date thereof at the following rates per annum, and shall mature on June 1 in the following years in the following amounts:

Series 2017A Bonds

Maturity		
Date	Principal	Interest
(June 1)	Amount	Rate

Interest on the Series 2017A Bonds shall be payable semiannually on June 1 and December 1 of each year, commencing on December 1, 2017, by check mailed by first-class mail on each interest payment date to the Owners thereof as of the close of business on the fifteenth (15th) day of the calendar month immediately preceding such interest payment date (each, a "record date"), except that in the case of an Owner of \$1,000,000 or more in aggregate principal amount of Series 2017A Bonds, upon written request of such Owner to the Trustee received at least ten (10) days prior to the record date for the payment of interest, specifying the account or accounts to which such payment shall be made (which request shall remain in effect until revoked by such Owner in a subsequent writing delivered to the Trustee), such interest shall be paid in immediately available funds by wire transfer to such account or accounts on the following interest payment date. Interest on the Series 2017A Bonds shall be computed on the

basis of a 360-day year of twelve 30-day months. The principal of and premium, if any, on the Series 2017A Bonds are payable when due upon presentation thereof at the corporate trust office of the Trustee in San Francisco, California, or at such other place as designated by the Trustee, in lawful money of the United States of America.

So long as the Series 2017A Bonds are maintained in book-entry form, payments of principal, premium, if any, and interest shall be made by the Trustee to the Securities Depository by wire transfer in accordance with mutually satisfactory arrangements between the Trustee and the Securities Depository.

The Trustee shall provide CUSIP number identification, with appropriate dollar amounts for each CUSIP number, on all redemption payments and interest payments, whether by check or by wire transfer.

SECTION 35.03 <u>Book-Entry System.</u> The Series 2017A Bonds shall be initially issued registered in the name of "Cede & Co.," as nominee for DTC and registered Owner thereof, and held in the custody of the Securities Depository. A single certificate will be issued and delivered to the Securities Depository for each maturity of the Series 2017A Bonds in a denomination corresponding to the total principal amount of the Series 2017A Bonds maturing on each of the maturity dates, and the Beneficial Owners will not receive physical delivery of bond certificates for the Series 2017A Bonds except as provided herein. For so long as the Securities Depository shall continue to serve as securities depository for the Series 2017A Bonds as provided herein, all transfers of beneficial ownership interests will be made by book-entry only, and no investor or other party purchasing, selling or otherwise transferring beneficial ownership of Series 2017A Bonds will receive, hold or deliver any Series 2017A Bond certificate.

At the written direction of the District, with notice to the Trustee, but without the consent of the Owners of the Series 2017A Bonds or the Trustee, the District, may appoint a successor Securities Depository and enter into an agreement with the successor Securities Depository, to establish procedures with respect to a Book-Entry System for the Series 2017A Bonds not inconsistent with the provisions of the Indenture. Any successor Securities Depository shall be a "clearing agency" registered under Section 17A of the Securities Exchange Act of 1934, as amended.

The District and the Trustee may rely conclusively upon (i) a certificate of the Securities Depository as to the identity of the Securities Depository Participants in the Book-Entry System with respect to the Series 2017A Bonds and (ii) a certificate of any such Securities Depository Participant as to the identity of, and the respective principal amount of the Series 2017A Bonds beneficially owned by, the Beneficial Owners.

Whenever, during the term of the Series 2017A Bonds, the beneficial ownership thereof is determined by a book-entry at the Securities Depository, the requirements in the Indenture of holding, delivering or transferring the Series 2017A Bonds shall be deemed modified to require the appropriate person to meet the requirements of the Securities Depository as to registering or transferring the book-entry to produce the same effect. Any provision hereof permitting or requiring delivery of the Series 2017A Bonds shall, while the Series 2017A Bonds are in the

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Book-Entry System, be satisfied by the notation on the books of the Securities Depository in accordance with applicable state law.

Except as otherwise specifically provided in the Indenture and the Series 2017A Bonds with respect to the rights of Securities Depository Participants and Beneficial Owners, when a Book-Entry System is in effect, the District and the Trustee may treat the Securities Depository (or its nominee) as the sole and exclusive Owner of the Series 2017A Bonds registered in its name for the purposes of payment of the principal of and interest on the Series 2017A Bonds or a portion thereof to be redeemed or purchased (if applicable), and of giving any notice permitted or required to be given to the Owners of Series 2017A Bonds under the Indenture, and neither the District nor the Trustee shall be affected by any notice to the contrary. Neither the District nor the Trustee will have any responsibility or obligation to the Securities Depository, any Securities Depository Participant, any Beneficial Owner or any other Person which is not shown on the registration books required to be maintained by the Trustee, with respect to: (i) the accuracy of any records maintained by the Securities Depository or any Securities Depository Participant; (ii) the payment by the Securities Depository or by any Securities Depository Participant of any amount due to any Beneficial Owner in respect of the principal amount or redemption or purchase price (if applicable) of, or interest on, any Series 2017A Bonds; (iii) the delivery of any notice by the Securities Depository or any Securities Depository Participant; (iv) the selection of the Beneficial Owners to receive payment in the event of any partial redemption of the Series 2017A Bonds; or (v) any other action taken by the Securities Depository or any Securities Depository Participant. The Trustee shall pay all principal of and interest on the Series 2017A Bonds registered in the name of Cede & Co. only to or "upon the order of" the Securities Depository, and all such payments shall be valid and effective to fully satisfy and discharge the District's obligations with respect to the principal of and interest on such Series 2017A Bonds to the extent of the sum or sums so paid.

The Book-Entry System may be discontinued by the Trustee and the District, at the direction and expense of the District, and the District and the Trustee will cause the delivery of Series 2017A Bond certificates to the Beneficial Owners of the Series 2017A Bonds and registered in the names of such Beneficial Owners as shall be specified to the Trustee by the Securities Depository in writing, under the following circumstances:

- (1) The Securities Depository determines to discontinue providing its service with respect to the Series 2017A Bonds and no successor Securities Depository is appointed as described above. Such a determination may be made at any time by giving thirty (30) days' notice to the District and the Trustee and discharging its responsibilities with respect thereto under applicable law; or
- (2) The District determines not to continue the Book-Entry System through a Securities Depository, upon not less than forty-five (45) days' prior written notice to the Trustee.

When the Book-Entry System is not in effect, all references herein to the Securities Depository shall be of no further force or effect.

So long as any Series 2017A Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of and interest on such Series 2017A Bond and all notices with respect to such Series 2017A Bond shall be made and given, respectively, in the manner provided in the Representation Letter.

In the event of a redemption or any other transaction necessitating a reduction in aggregate principal amount of Series 2017A Bonds Outstanding, DTC in its discretion: (a) may request the District and the Trustee to issue and authenticate a new Series 2017A Bond certificate; or (b) shall make an appropriate notation on the Series 2017A Bond certificate indicating the date and amounts of such reduction in principal, except in the case of final maturity, in which case the certificate must be presented to the Trustee prior to payment.

SECTION 35.04 Redemption of Series 2017A Bonds.

- (A) Optional Redemption. The Series 2017A Bonds maturing on or before June 1, 20__ are not subject to optional redemption prior to maturity. The Series 2017A Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20__, at a redemption price equal to the principal amount of Series 2017A Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.
- (B) [Mandatory Sinking Account Redemption. The Series 2017A Bonds maturing on June 1, 20_ are also subject to redemption prior to maturity, in part, by lot, from Mandatory Sinking Account Payments required by and as specified in Section 35.09, commencing on June 1, 20_, at the principal amount thereof plus accrued interest thereon to the date fixed for redemption, without premium.]
- SECTION 35.05 Selection of Series 2017A Bonds for Redemption. Whenever provision is made in this Nineteenth Supplemental Indenture for the redemption of less than all of the Series 2017A Bonds, the maturities of the Series 2017A Bonds to be redeemed shall be specified by the District. In the case of partial redemption of less than all of the Series 2017A Bonds of any maturity, the Trustee shall select the Series 2017A Bonds of such maturity to be redeemed, from all Series 2017A Bonds of the respective maturity not previously called for redemption, in authorized denominations, by lot, in any manner which the Trustee in its sole discretion shall deem appropriate and fair. The Trustee shall promptly notify the District in writing of the Series 2017A Bonds so selected for redemption.

SECTION 35.06 Notice of Redemption. The District shall notify the Trustee at least twenty-five (25) days prior to the redemption date for any Series 2017A Bonds pursuant to Section 35.04(A) (or such shorter time as may be agreed to by the Trustee). Notice of redemption shall be given by the Trustee, not less than twenty (20) nor more than sixty (60) days prior to the redemption date, (i) to the respective Owners of any Series 2017A Bonds designated for redemption at their addresses appearing on the bond registration books of the Trustee by first-class mail, (ii) to the Securities Depository by electronic means of communication or by first-class mail, and (iii) to the Electronic Municipal Market Access System (referred to as "EMMA"),

a facility of the Municipal Securities Rulemaking Board, at www.emma.msrb.org, by electronic means of communication, or to such other securities depositories or information services as the District may designate in a Request of the District delivered to the Trustee. Notice of redemption shall be given in the form and otherwise in accordance with the terms of the Indenture and this Nineteenth Supplemental Indenture.

In the event of an optional redemption of Series 2017A Bonds, if the District shall not have deposited or otherwise made available to the Trustee the money required for the payment of the redemption price of the Series 2017A Bonds to be redeemed at the time of the mailing of notice of redemption, such notice of redemption shall state that the redemption is expressly conditioned upon the timely deposit of sufficient funds therefor with the Trustee.

SECTION 35.07 <u>Partial Redemption of Series 2017A Bonds</u>. Upon surrender of any Series 2017A Bond redeemed in part only, the District shall execute and the Trustee shall authenticate and deliver to the Owner thereof, at the expense of the District, a new Series 2017A Bond of authorized denominations, and of the same maturity and interest rate, equal in aggregate principal amount to the unredeemed portion of the Series 2017A Bond surrendered.

SECTION 35.08 <u>Effect of Redemption</u>. If notice of redemption has been duly given pursuant to Section 35.06, and moneys for payment of the Redemption Price of, together with interest accrued to the redemption date on, the Series 2017A Bonds (or portions thereof) so called for redemption is held by the Trustee, on the redemption date designated in such notice, the Series 2017A Bonds (or portions thereof) so called for redemption shall become due and payable at the Redemption Price specified in such notice together with interest accrued thereon to the date fixed for redemption, interest on the Series 2017A Bonds so called for redemption shall cease to accrue, the Series 2017A Bonds (or portions thereof) shall cease to be entitled to any benefit or security under the Indenture, and the respective Owners of such Series 2017A Bonds shall have no rights in respect thereof except to receive payment of the Redemption Price and accrued interest.

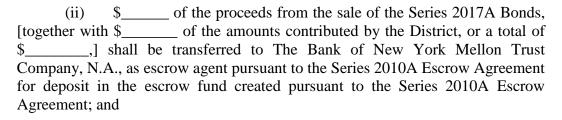
All Series 2017A Bonds redeemed pursuant to the provisions of this Article shall be cancelled upon surrender thereof and destroyed.

SECTION 35.09 [Series 2017A Sinking Account. An Account is hereby established within the Principal Fund created by Section 5.02 of the Indenture to be designated the "Series 2017A Sinking Account." On each Business Day prior to the following payment dates, the District shall transfer from the Principal Fund to the Series 2017A Sinking Account an amount equal to the payment due on such date as set forth below:

Term Series 2017A Bonds Due June 1, 20__

Mandatory Sinking Account Payment Dates (June 1)	Mandatory Sinking Account Payments
†	
† Final Maturity.	
Section 35.04(A), the District shall provid Mandatory Sinking Account Payments who remove of the Mandatory Sinking Account	a portion of any Term Series 2017A Bonds pursuant to de the Trustee with a revised schedule of the foregoing hich shall provide for a reduction in the amount of one ant Payments coming due on such Term Series 2017A by the District in such schedule to reflect such redeemed
Moneys in the Series 2017A Section 5.02(A) and Section 5.04(B) of the	Sinking Account shall be applied as provided in e Indenture.]
certificate of authentication and registrati form set forth as Exhibit A hereto. The S	ries 2017A Bonds. The Series 2017A Bonds and the on to be executed thereon shall be in substantially the Series 2017A Bond letters and numbers, maturity dates, be inserted therein in conformity with Section 35.02.
of this Nineteenth Supplemental Indente	Series 2017A Bonds. Upon the execution and delivery ure, the District shall execute and the Trustee shall a Bonds in the aggregate principal amount of \$, er of the District.
of the sale of the Series 2017A Bonds is aggregate principal amount of the Series [premium][discount], less \$ Initial amount of \$ previously received by	of Proceeds of Series 2017A Bonds. The net proceeds in the amount of \$ (representing the \$ 2017A Bonds [plus][less] \$ [net] original issue I Purchaser's discount) less the Good Faith Deposit y the District, [together with \$ contributed by the eceived by the Trustee on behalf of the District in trust Trustee as follows:
[together with \$ o	the proceeds from the sale of the Series 2017A Bonds, of the amounts contributed by the District, or a total of nsferred to The Bank of New York Mellon Trust

Company, N.A., as escrow agent pursuant to the Series 2007B Escrow Agreement for deposit in the escrow fund created pursuant to the Series 2007B Escrow Agreement;



(iii) \$_____ of the proceeds from the sale of the Series 2017A Bonds shall be transferred to the District and the District shall deposit such amount, together with the Good Faith Deposit amount previously received by the District, or a total of \$_____, in the Series 2017A Wastewater System Fund (of which \$_____ shall be deposited in the Construction Account therein and \$____ shall be deposited in the Costs of Issuance Account therein) to be applied in accordance with Section 35.13.

SECTION 35.13 Establishment and Application of Series 2017A Wastewater System Fund. The District shall establish, maintain and hold in trust a separate fund designated as the "Series 2017A Wastewater System Fund," with two accounts therein designated as the "Construction Account" and the "Costs of Issuance Account." The moneys on deposit in the Construction Account shall be used and withdrawn by the District to pay or reimburse the District for the costs of construction, reconstruction, replacement, acquisition or improvement of any facility or facilities necessary or convenient for the collection, treatment or disposal of wastewater; or incidental to, or in connection with, the operation of the Wastewater System. The moneys on deposit in the Costs of Issuance Account shall be used and withdrawn by the District to pay Costs of Issuance of the Series 2017A Bonds. Excess amounts, if any, remaining in the Costs of Issuance Account after payment in full of all Costs of Issuance of the Series 2017A Bonds shall be transferred to the Construction Account to be applied to the purposes thereof. Moneys on deposit in the Series 2017A Wastewater System Fund may be invested in (i) Investment Securities, (ii) investment agreements with a domestic or foreign bank or corporation (other than a life or property casualty insurance company) the long-term debt of which, or, in the case of a guaranteed corporation the long-term debt, or, in the case of a monoline financial guaranty insurance company, claims paying ability, of the guarantor, is rated on the date of execution of such investment agreement not lower than "Aa2" by Moody's (if Moody's is then rating any of the District's Outstanding Bonds) and "AA" by Standard & Poor's (if Standard & Poor's is then rating any of the District's Outstanding Bonds), or (iii) the Local Agency Investment Fund (as that term is defined in Section 16429.1 of the California Government Code, as such section may be amended or recodified from time to time), and with a term so as to provide moneys when needed for payments to be made therefrom. Interest, profit or other income derived from the investment of moneys held in the Series 2017A Wastewater System Fund shall be credited to such Fund. Interest, profit or other income derived from the investment of moneys held in the Series 2017A Wastewater System Fund may also be transferred to the Trustee for deposit in the Rebate Fund in an amount determined by the District to be required.

SECTION 35.14 <u>Continuing Disclosure</u>. The District and the Trustee hereby covenant and agree that they will comply with and carry out all of their respective obligations under the Continuing Disclosure Agreement. Notwithstanding any other provision of this Indenture, failure of the District or the Trustee to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, any Series 2017A Bondholder or Beneficial Owner or the Trustee may (and, at the request of any Participating Underwriter (as defined in the Continuing Disclosure Agreement) or the Owners of at least 25% of the aggregate principal amount of Outstanding Series 2017A Bonds and upon provision of indemnification satisfactory to the Trustee, shall) take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District or the Trustee, as the case may be, to comply with its obligations under this Section 35.14.

SECTION 35.15 <u>Terms of Series 2017A Bonds Subject to the Indenture</u>. Except as in this Nineteenth Supplemental Indenture expressly provided, every term and condition contained in the Indenture shall apply to this Nineteenth Supplemental Indenture and to the respective Series 2017A Bonds with the same force and effect as if the same were herein set forth at length, with such omissions, variations and modifications thereof as may be appropriate to make the same conform to this Nineteenth Supplemental Indenture.

This Nineteenth Supplemental Indenture and all the terms and provisions herein contained shall form part of the Indenture as fully and with the same effect as if all such terms and provisions had been set forth in the Indenture. The Indenture is hereby ratified and confirmed and shall continue in full force and effect in accordance with the terms and provisions thereof, as supplemented and amended hereby.

SECTION 35.16 <u>Effective Date of Nineteenth Supplemental Indenture</u>. This Nineteenth Supplemental Indenture shall take effect upon its execution and delivery.

SECTION 35.17 <u>Execution in Counterparts</u>. This Nineteenth Supplemental Indenture may be executed in several counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed the Nineteenth Supplemental Indenture by their officers thereunto duly authorized as of the day and year first written above.

EAST BAY MUNICIPAL UTILITY

	DISTRICT
	By:
A TYPE OT	
ATTEST:	
By: Secretary of the District	
	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee
	By: Vice President

EXHIBIT A

(FORM OF SERIES 2017A BONDS)

No. R-	¢	
NO. K	Φ	
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EAST BAY MUNICIPAL UTILITY DISTRICT (ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA) WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

Unless this certificate is presented by an authorized representative of The Depository Trust Company a New York corporation ("DTC"), to the District or its agent for registration of transfer, exchange, or payment, and any certificate issued is registered in the name of Cede & Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

Maturity Date	<u>Dated Date</u>	Interest Rate	<u>CUSIP</u>
June 1,	June, 2017	%	
REGISTERED (OWNER: CEDE & C	CO.	

PRINCIPAL AMOUNT:

EAST BAY MUNICIPAL UTILITY DISTRICT, a municipal utility district duly organized and existing under and pursuant to the laws of the State of California (the "District"), for value received, hereby promises to pay (but only out of the Subordinated Wastewater Revenues (defined herein) and funds hereinafter referred to) to the registered owner named above or registered assigns, on the maturity date specified above (subject to any right of prior redemption or payment as provided in the hereinafter mentioned Indenture), the principal amount specified above together with interest thereon from its Dated Date until the principal hereof shall have been paid, at the interest rate per annum specified above, payable on December 1, 2017, and semiannually thereafter on June 1 and December 1 in each year. Interest hereon is payable in lawful money of the United States of America by (except as otherwise provided in the hereinafter mentioned Indenture) check mailed by first-class mail on each interest payment date to the registered owner as of the close of business on the 15th day of the calendar month immediately preceding such interest payment date (each, a "record date"), except that in the case of an Owner of \$1,000,000 or more in aggregate principal amount of the hereinafter described Series 2017A Bonds, upon written request of such Owner to the Trustee received at least 10 days prior to the record date for the payment of interest, specifying the account or accounts to which

such payment shall be made (which request shall remain in effect until revoked by such Owner in a subsequent writing delivered to the Trustee), such interest shall be paid in immediately available funds by wire transfer to such account or accounts on the following interest payment date. The principal hereof and premium, if any, hereon are payable when due upon presentation hereof at the corporate trust office of The Bank of New York Mellon Trust Company, N.A., as successor trustee (together with any successor as trustee under said Indenture, the "Trustee"), in San Francisco, California, or at such other place as designated by the Trustee, in lawful money of the United States of America.

This Bond is one of a duly authorized issue (of the series and designation indicated on the face hereof) of Wastewater System Revenue Bonds of the District issued pursuant to a Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented, between the Trustee and the District, providing for the issuance of said bonds (the "Bonds"). Said authorized issue of Bonds is not limited in aggregate principal amount, except as otherwise provided in said Wastewater System Subordinated Revenue Bond Indenture, and consists or may consist of one or more series of varying denominations, dates, maturities, interest rates and other provisions, as in said Wastewater System Subordinated Revenue Bond Indenture provided, all issued and to be issued pursuant to the provisions of the Act (as defined in the Wastewater System Subordinated Revenue Bond Indenture). This Bond is issued pursuant to the Wastewater System Subordinated Revenue Bond Indenture, as amended and supplemented, including as amended and supplemented by a Nineteenth Supplemental Indenture, dated as of June 1, 2017, between the Trustee and the District, authorizing the issuance of the series of bonds of which this Bond is one, such series being herein referred to as the "Series 2017A Bonds" (the Wastewater System Subordinated Revenue Bond Indenture, as amended and supplemented, including as amended and supplemented by the Nineteenth Supplemental Indenture, being herein collectively referred to as the "Indenture"). Reference is hereby made to the Indenture and to the Act for a description of the terms on which the Bonds are issued and to be issued, the provisions with regard to the nature and extent of the Subordinated Wastewater Revenues (as that term is defined in the Indenture), and the rights of the registered owners of the Bonds; and all the terms of the Indenture and the Act are hereby incorporated herein and constitute a contract between the District and the registered owner from time to time of this Bond, and to all the provisions thereof the registered owner of this Bond, by its acceptance hereof, consents and agrees. Additional Bonds may be issued, and indebtedness may be incurred, on a parity with the Bonds of this authorized issue, but only subject to the conditions and limitations contained in the Indenture.

The Bonds and the interest thereon (to the extent set forth in the Indenture), together with the Parity Debt (as defined in the Indenture) issued by the District, and the interest thereon, are payable from, and are secured by a charge and lien on, the "Subordinated Wastewater Revenues" (as more particularly defined in the Indenture). All of the Bonds and Parity Debt are equally secured by a pledge of, and charge and lien upon, all of the Subordinated Wastewater Revenues, and the Subordinated Wastewater Revenues constitute a trust fund for the security and payment of the interest on and principal of the Bonds; but nevertheless out of Subordinated Wastewater Revenues certain amounts may be applied for other purposes as provided in the Indenture.

The Bonds are limited obligations of the District and are payable, both as to principal and interest, and as to any premiums upon the redemption thereof, out of the Subordinated

Wastewater Revenues and certain funds held under the Indenture. The general fund of the District is not liable, and the credit or taxing power of the District is not pledged, for the payment of the Bonds or the interest thereon. The Bonds are not secured by a legal or equitable pledge of, or charge, lien or encumbrance upon, any of the property of the District or any of its income or receipts, except the Subordinated Wastewater Revenues and the funds held under the Indenture. No registered owner of this Bond shall ever have the right to compel any exercise of the taxing power of the District to pay this Bond or the interest hereon.

The Series 2017A Bonds are being issued by means of a book-entry system with no physical distribution of bond certificates to be made except as provided in the Indenture. One bond certificate with respect to each date on which the Series 2017A Bonds are stated to mature, registered in the name of the Cede & Co, is being issued and required to be deposited with the Securities Depository and immobilized in its custody. The book-entry system will evidence positions held in the Series 2017A Bonds by the Securities Depository Participants, beneficial ownership of the Series 2017A Bonds in authorized denominations being evidenced in the records of such Securities Depository Participants. Transfers of ownership shall be effected on the records of the Securities Depository and its Securities Depository Participants pursuant to rules and procedures established by the Securities Depository and its Securities Depository Participants. The District and the Trustee will recognize Cede & Co., while the registered owner of this Series 2017A Bond, as the owner of this Series 2017A Bond for all purposes, including (i) payments of principal of, and redemption premium, if any, and interest on this Series 2017A Bond and (ii) notices. Transfer of principal, interest and any redemption premium payments to Securities Depository Participants, and transfer of principal, interest and any redemption premium payments to beneficial owners of the Series 2017A Bonds by Securities Depository Participants will be the responsibility of such Securities Depository Participants and other nominees of such beneficial owners. The District will not be responsible or liable for such transfers of payments or for maintaining, supervising or reviewing the records maintained by the Securities Depository, Cede & Co., its Securities Depository Participants or persons acting through such Securities Depository Participants. While Cede & Co. is the registered owner of this Series 2017A Bond, notwithstanding any other provision hereof, payments of principal of, redemption premium, if any, and interest on this Series 2017A Bond shall be made in accordance with existing arrangements between the Trustee or its successors under the Indenture and the Securities Depository.

The Series 2017A Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20__, at a redemption price equal to the principal amount of Series 2017A Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

[The Series 2017A Bonds maturing on June 1, 20___ are also subject to redemption prior to maturity, in part, by lot, from Mandatory Sinking Account Payments required by and as specified in the Indenture, commencing on June 1, 20__, at the principal amount thereof plus accrued interest thereon to the date fixed for redemption, without premium.]

This Bond is transferable or exchangeable for other authorized denominations by the registered owner hereof, in person or by its attorney duly authorized in writing, at the corporate trust office of the Trustee in San Francisco, California, but only in the manner, subject to the limitations and upon payment of the charges provided in the Indenture, and upon surrender and cancellation of this Bond. Upon such transfer or exchange a new fully registered Bond or Bonds without coupons, of authorized denomination or denominations, of the same series, tenor, maturity and interest rate for the same aggregate principal amount will be issued to the registered owner in exchange hereof.

The District, the Trustee and any paying agent may deem and treat the registered owner hereof as the absolute owner hereof for all purposes, and the District, the Trustee and any paying agent shall not be affected by any notice to the contrary.

The rights and obligations of the District and of the registered owners of the Bonds may be modified or amended at any time in the manner, to the extent, and upon the terms provided in the Indenture, which provide, in certain circumstances, for modifications and amendments without the consent of or notice to the registered owners of the Bonds.

It is hereby certified and recited that any and all acts, conditions and things required to exist, to happen and to be performed, precedent to and in the incurring of the indebtedness evidenced by this Bond, and in the issuing of this Bond, do exist, have happened and have been performed in due time, form and manner, as required by the Constitution and statutes of the State of California, and that this Bond, together with all other indebtedness of the District pertaining to the Subordinated Wastewater Revenues, is within every debt and other limit prescribed by the Constitution and the statutes of the State of California, and is not in excess of the amount of Bonds permitted to be issued under the Indenture or the Act.

This Bond shall not be entitled to any benefit under the Indenture, or become valid or obligatory for any purpose, until the certificate of authentication hereon endorsed shall have been signed by the Trustee.

Capitalized terms used but not defined herein shall have the meanings assigned to them in the Indenture.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.]

this Bond to be executed in its name and on	BAY MUNICIPAL UTILITY DISTRICT has caused its behalf by the President of the Board of Directors to be dated as of the day of June, 2017.
	EAST BAY MUNICIPAL UTILITY DISTRICT
	By: President of the Board of Directors
Attested:	
By: Secretary	

[FORM OF CERTIFICATE OF AUTHENTICATION AND REGISTRATION]

This is one of the Bonds des the date set forth below.	scribed in the within mentioned Indenture and registered on
Dated:, 20	
	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee
	By:Authorized Officer

[FORM OF ASSIGNMENT]

unto	hereby sell, assign and transfer the within Bond and hereby irrevocably constitute
and appoint attorned the office of the Trustee, with full power of	ey, to transfer the same on the books of the District at substitution in the premises.
	NOTE: The signature to this Assignment must correspond with the name on the face of the within registered bond in every particular, without alteration or enlargement or any change whatsoever.
Dated:	
Signature Guaranteed by:	NOTE: Signature must be guaranteed by an eligible guarantor institution.

NOTICE OF INTENTION TO SELL

\$______*

EAST BAY MUNICIPAL UTILITY DISTRICT
(Alameda and Contra Costa Counties, California)

WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

NOTICE IS HEREBY GIVEN that the East Bay Municipal Utility District (the "District") intends to offer for public sale on:

Thursday, June 1, 2017 at [8:00] a.m.

(subject to postponement or cancellation in accordance with the hereinafter mentioned Official Notice of Sale)

\$_____* aggregate principal amount of East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds"). Bids for the Series 2017A Bonds will be received in electronic form only and solely through BiDCOMPTM/Parity® ("BiDCOMP/Parity"), in the manner described in the Official Notice of Sale.

The District reserves the right to postpone or cancel the sale of the Series 2017A Bonds, to change the terms thereof upon notice given through BiDCOMP/Parity, and to reject all proposals received on such date. In the event that no bid is awarded for the Series 2017A Bonds, the District may reschedule the sale to another date or time by providing notification through BiDCOMP/Parity. Notice of any postponement, a new time, or a new time and date, for receipt of bids will be communicated through BiDCOMP/Parity.

The Series 2017A Bonds will be offered for public sale subject to the terms and conditions of the Official Notice of Sale. Further information regarding the proposed sale of the Series 2017A Bonds, including copies of the Preliminary Official Statement and the Official Notice of Sale relating to the Series 2017A Bonds, will be available electronically at www.i-dealprospectus.com or may be obtained from the District's co-municipal advisors: Montague DeRose and Associates, LLC, 2175 N. California Boulevard, Suite 422, Walnut Creek, California 94596, Attention: Natalie Perkins, Telephone: (925) 256-9797, (email: perkins@montaguederose.com); or Backstrom McCarley Berry & Co., LLC, 115 Sansome Street, Mezzanine A, San Francisco, California 94104, Attention: Vincent McCarley, Telephone: (415) 392-5505, (email: vmccarley@bmcbco.com).

The Preliminary Official Statement will also be posted electronically at CLS Printing Company: http://www.clsprinting.com/. Failure of any bidder to receive notice thereof shall not affect the legality of the sale.

Dated: May ___, 2017

EAST BAY MUNICIPAL UTILITY DISTRICT

/s/ Sophia D. Skoda	
Director of Finance	

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^{*} Preliminary; subject to change.

OFFICIAL NOTICE OF SALE

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EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California) WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

NOTICE IS HEREBY GIVEN that electronic bids (as explained below) will be received by the East Bay Municipal Utility District (the "District"), in the manner described below, for the purchase of \$______* aggregate principal amount of East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds"). Bids for less than all of the Series 2017A Bonds will not be accepted. The bids will be received in the form, in the manner and at the time specified below (subject to postponement or cancellation as described herein):

Date and Time for Bids: Thursday, June 1, 2017
[8:00] a.m., California Time

Electronic Bids: Proposals must be submitted electronically through

BiDCOMPTM/Parity[®] ("BiDCOMP/Parity"), in the manner described in this Official Notice of Sale. No facsimile, hand delivery or sealed bids will be accepted and no bid will be accepted after the time for receiving bids specified above.

BiDCOMP/Parity will act as agent of the bidder and not of the District in connection with the submission of bids and the District assumes no responsibility or liability for bids submitted through BiDCOMP/Parity. See "TERMS OF THE SALE" herein.

The District reserves the right to postpone, from time to time, the date established for receipt and opening of bids with respect to the Series 2017A Bonds. Notice of any postponement will be communicated through BiDCOMP/Parity as soon as practicable following postponement. See "TERMS OF THE SALE – Postponement or Cancellation of Sale."

The District reserves the right to cancel the sale of the Series 2017A Bonds. Notice of any cancellation will be given through BiDCOMP/Parity as soon as practicable following such cancellation. See "TERMS OF THE SALE – Postponement or Cancellation of Sale."

Notice of any change in the terms of the sale of the Series 2017A Bonds will be given through BiDCOMP/Parity by 4:00 p.m. (California time) the day before the sale. See "TERMS OF THE SERIES 2017A BONDS – Adjustment of Principal Payments" and "TERMS OF THE SALE – Right to Modify or Amend." As an accommodation to bidders, telephone, facsimile or electronic notice of any amendment or modification of this Official Notice of Sale will be given

^{*} Preliminary, subject to change.

to any bidder requesting such notice from one of the District's co-municipal advisors (the "Co-Municipal Advisors"):

Montague DeRose and Associates, LLC 2175 N. California Boulevard, Suite 422

Walnut Creek, California 94596

Attention: Natalie Perkins Telephone: (925) 256-9797 Facsimile: (925) 256-9795

E-mail: perkins@montaguederose.com

Backstrom McCarley Berry & Co., LLC

115 Sansome Street, Mezzanine A San Francisco, California 94104 Attention: Vincent McCarley Telephone: (415) 392-5505

Facsimile: (415) 392-5276 E-mail: vmccarley@bmcbco.com

Failure of any bidder to receive any such supplemental notice shall not affect the sufficiency of any required notice or the legality of the sale.

Bidders are directed to the Preliminary Official Statement of the District dated the date hereof with respect to the Series 2017A Bonds (the "Preliminary Official Statement") for additional information regarding the District, the District's Wastewater System (as defined in the Preliminary Official Statement), the Series 2017A Bonds and the security therefor, and other matters. See "TERMS OF THE SERIES 2017A BONDS – Preliminary Official Statement" below.

This Official Notice of Sale will be submitted to Ipreo Prospectus ("Ipreo") for posting on its website (www.i-dealprospectus.com) and in the BiDCOMP/Parity bid delivery system. If any summary of the terms of the sale of the Series 2017A Bonds posted by Ipreo or BiDCOMP/Parity conflicts with this Official Notice of Sale in any respect, the terms of this Official Notice of Sale shall control, unless a notice of an amendment to this Official Notice of Sale is given as described herein.

TERMS OF THE SERIES 2017A BONDS

Preliminary Official Statement

The Preliminary Official Statement for the Series 2017A Bonds, dated May ___, 2017, including the cover page and all appendices thereto (the "Preliminary Official Statement"), provides certain information concerning the sale and delivery of the Series 2017A Bonds, including the purpose thereof, the authority for issuance, the security and sources of payment for the Series 2017A Bonds, the forms of legal opinions, and other information regarding the District, the Wastewater System and the Series 2017A Bonds. Each bidder will be deemed to have obtained and reviewed the Preliminary Official Statement prior to bidding for the Series 2017A Bonds. This Official Notice of Sale, including all exhibits and attachments, contains certain information for general reference only, is not a summary of the issue and governs only the terms of the sale of, bidding for, and closing procedures with respect to, the Series 2017A Bonds. Bidders must read the entire Preliminary Official Statement to obtain information essential to making an informed investment decision. The description of the Series 2017A Bonds contained in this Official Notice of Sale is qualified in all respects by the description contained in the Preliminary Official Statement.

Authority for Issuance

The Series 2017A Bonds are being issued pursuant to the Municipal Utility District Act and laws of the State amendatory thereof or supplemental thereto, including the Revenue Bond Law of 1941, as made applicable by Article 6a of Chapter 6 of Division 6 of the Municipal Utility District Act, and, with respect to the portion of the Series 2017A Bonds issued for refunding purposes, Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California, as amended, resolutions adopted by the District, and the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by the Nineteenth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, relating to the Series 2017A Bonds (as so amended and supplemented, the "Indenture").

Purpose

The Series 2017A Bond proceeds will be used to (i) provide moneys to finance costs (or to reimburse the District for costs) of various improvements to the Wastewater System of the District, (ii) refund (a) all of the District's \$23,915,000 aggregate principal amount of outstanding Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds") maturing on and after June 1, 2018 and (b) \$34,100,000 principal amount of the District's \$41,905,000 outstanding Wastewater System Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds"), being the Series 2010A Bonds maturing on and after June 1, 2021 (the Series 2007B Bonds and Series 2010A Bonds being refunded are collectively referred to herein as the "Refunded Bonds"), and (iii) pay costs of issuance in connection with the Series 2017A Bonds, all as more fully described in the Preliminary Official Statement.

Capitalized terms not defined herein shall have the same definitions as used in the Indenture.

Security and Source of Payment for the Series 2017A Bonds

The Series 2017A Bonds are special obligations of the District, payable solely from and secured by a pledge of the Subordinated Wastewater Revenues of the District, as defined in the Indenture. Subordinated Wastewater Revenues generally consist of the District's Wastewater Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) remaining after the payment of (a) all Wastewater Operation and Maintenance Costs and (b) all amounts required to be paid under the District's Senior Wastewater Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Senior Wastewater Bonds. There are no Senior Wastewater Bonds currently outstanding and the District has covenanted pursuant to the Indenture that it will not issue any Senior Wastewater Bonds in the future.

The Series 2017A Bonds are secured on a parity with the District's other Wastewater System Revenue Bonds to be outstanding upon the delivery thereof, together with any additional Wastewater System Revenue Bonds hereafter issued and with any other Parity Debt (which may

include payment obligations under interest rate swap agreements) heretofore or hereafter incurred in accordance with the Indenture. As of May 1, 2017, the District had outstanding \$388,530,000 aggregate principal amount of Wastewater System Revenue Bonds. Bidders are referred to the Indenture and the Preliminary Official Statement for definitions of terms and for further particulars, including further information regarding the District's outstanding Wastewater System Revenue Bonds and the terms and conditions under which the District may issue or incur additional Wastewater System Revenue Bonds and Parity Debt pursuant to the Indenture.

The Series 2017A Bonds are special obligations of the District, payable solely from and secured by a pledge of Subordinated Wastewater Revenues. Neither the full faith and credit nor the taxing power of the District is pledged to the payment of the Series 2017A Bonds or the interest thereon.

General Terms; Book-Entry Only

The Series 2017A Bonds will be delivered in fully-registered form and, when issued, will be initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Series 2017A Bonds. One fully-registered Series 2017A Bond certificate will be issued for each maturity of the Series 2017A Bonds in a denomination equal to the aggregate principal amount of the Series 2017A Bonds of such maturity and will be deposited with DTC. Individual purchases of the Series 2017A Bonds may be made in book-entry form only, in denominations of \$5,000 principal amount or any integral multiple thereof. So long as DTC, or its nominee, Cede & Co., is the registered owner of the Series 2017A Bonds, all payments of principal of, and interest on, the Series 2017A Bonds will be made by the Trustee directly to DTC, which is obligated in turn to remit such principal and interest to its DTC participants for subsequent disbursement to the beneficial owners of the Series 2017A Bonds.

Interest Payment Dates

The Series 2017A Bonds are dated and shall bear interest from their date of delivery. Interest will be payable semiannually on each June 1 and December 1, commencing December 1, 2017.

Principal Amortization

The Series 2017A Bonds shall be subject to principal amortization either through serial maturities or sinking fund redemptions, or a combination thereof, on June 1 in each of the years 20__ through 20__, both inclusive. The principal amount of Series 2017A Bonds maturing or subject to mandatory sinking fund redemption in any year shall be in integral multiples of \$5,000. For any term Series 2017A Bonds specified, the principal amount for a given year may be allocated only to a single term bond and must be part of an uninterrupted annual sequence from the first mandatory sinking fund payment to the term bond maturity.

An estimate of the principal payment schedule for the Series 2017A Bonds is set forth below.

Year Ending

Information related to the principal payment schedule of the Series 2017A Bonds will be updated on BiDCOMP/Parity one day prior to the sale of the Series 2017A Bonds. See "-Adjustment of Principal Payments" below.

Adjustment of Principal Payments

Year Ending

NO BIDDER MAY WITHDRAW ANY BID FOR THE SERIES 2017A BONDS OR CHANGE THE INTEREST RATES BID OR THE REOFFERING PRICES IN ITS REOFFERING PRICE CERTIFICATE AS A RESULT OF ANY CHANGE MADE TO THE PRINCIPAL PAYMENTS OF THE SERIES 2017A BONDS IN ACCORDANCE WITH THIS OFFICIAL NOTICE OF SALE. FURTHER, IF THE DISTRICT CHANGES THE PRINCIPAL PAYMENT SCHEDULE FOR THE SERIES 2017A BONDS AFTER THE RECEIPT OF BIDS, THE PURCHASER'S DISCOUNT FOR THE SERIES 2017A BONDS, EXPRESSED IN DOLLARS PER THOUSAND DOLLAR OF THE SERIES 2017A BONDS, WILL BE HELD CONSTANT. THE DISTRICT WILL NOT BE RESPONSIBLE, IF AND TO THE

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^{*} Preliminary, subject to adjustment as described below.

EXTENT THAT, ANY ADJUSTMENT AFFECTS (i) THE NET COMPENSATION TO BE REALIZED BY THE SUCCESSFUL BIDDER FOR THE SERIES 2017A BONDS OR (ii) THE TRUE INTEREST COST OF THE WINNING BID FOR THE SERIES 2017A BONDS OR THE RANKING OF ANY BID RELATIVE TO OTHER BIDS FOR THE SERIES 2017A BONDS.

Optional Redemption

The Series 2017A Bonds maturing on or before June 1, 20__ will not be subject to optional redemption prior to maturity. The Series 2017A Bonds maturing on and after June 1, 20__ shall be subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20__ at a redemption price equal to the principal amount of Series 2017A Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

Mandatory Sinking Fund Redemption

If the successful bidder for the Series 2017A Bonds designates principal amounts to be combined into one or more term bonds for the Series 2017A Bonds, each such term bond shall be subject to mandatory sinking fund redemption commencing on June 1 of the first year which has been combined to form such term bond and continuing on June 1 in each year thereafter until the stated maturity date of that term bond; provided that no such mandatory sinking fund redemption shall commence prior to June 1, 20__. The amount redeemed in any year shall be equal to the principal amount and year set forth in the table above under the caption "— Principal Amortization," as adjusted in accordance with the provisions described above under the caption "— Adjustment of Principal Payments." The Series 2017A Bonds redeemed in any year by mandatory sinking fund redemption shall be redeemed at par and shall be selected by lot from among the Series 2017A Bonds then subject to such redemption. The District, at its option, may credit against any mandatory sinking fund redemption requirement for the Series 2017A Bonds term bonds of the maturity then subject to redemption which have been purchased and cancelled by the District or have been redeemed and not theretofore applied as a credit against any mandatory sinking fund redemption requirement.

Continuing Disclosure

In order to assist bidders in complying with Securities and Exchange Commission Rule 15c2-12(b)(5), the District will undertake, pursuant to a Continuing Disclosure Agreement, to provide certain annual financial information and notices of the occurrence of certain events. A form of the Continuing Disclosure Agreement, as well as information regarding the District's history of compliance during the past five years with any previous undertakings with regard to said Rule 15c2-12, is set forth in the Preliminary Official Statement and will also be set forth in the final Official Statement.

Legal Opinions and Tax Matters

The District will furnish to the successful bidder of the Series 2017A Bonds at the time of the closing of the Series 2017A Bonds, the legal opinion of Norton Rose Fulbright US LLP, Los

Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel, as to the validity of the Series 2017A Bonds. Orrick, Herrington & Sutcliffe LLP, San Francisco, California, will act as Special Tax Counsel to the successful bidder of the Series 2017A Bonds in connection with the issuance of the Series 2017A Bonds ("Special Tax Counsel"). At the time of delivery of the Series 2017A Bonds, Special Tax Counsel will furnish to the successful bidder of the Series 2017A Bonds, its legal opinion to the effect that, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2017A Bonds is excluded from gross income for federal income tax purposes under section 103 of the Internal Revenue Code of 1986, is exempt from State of California personal income taxes, and is not a specific preference item for purposes of the federal alternative minimum tax. Special Tax Counsel will express no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the Series 2017A Bonds.

The form of approving opinion of Co-Bond Counsel and the form of opinion to be delivered by Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel, in connection with the issuance of the Series 2017A Bonds are included as APPENDIX D to the Preliminary Official Statement.

TERMS OF THE SALE

Form of Bid; Electronic Bids Only

General. BIDS FOR LESS THAN ALL OF THE \$_____* AGGREGATE PRINCIPAL AMOUNT OF THE SERIES 2017A BONDS WILL NOT BE ACCEPTED. Each bid for the Series 2017A Bonds must be for all, and not less than all, of the Series 2017A Bonds offered for sale, and for not less than the aggregate principal amount thereof, plus any premium as permitted herein, as may be specified in the bid. All bids must be unconditional.

Multiple Bids. If multiple bids with respect to the Series 2017A Bonds are received from a single bidder, the District will have the right to accept the bid representing the lowest true interest cost ("TIC") to the District, and each bidder agrees by submitting any bid to be bound by such best bid.

Electronic Bids Only. Only electronic bids submitted through BiDCOMP/Parity will be accepted. All such bids must conform with the procedures established by BiDCOMP/Parity. To the extent any instructions or directions set forth in BiDCOMP/Parity conflict with this Official Notice of Sale, the terms of this Official Notice of Sale shall control, unless a notice of an amendment to this Official Notice of Sale is given as described herein.

For further information about BiDCOMP/Parity, potential bidders may contact:

I-Deal LLC 1359 Broadway, 2nd Floor New York, New York 10018 Telephone: (212) 849-5021

* Preliminary, subject to change.

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WARNING REGARDING ELECTRONIC BIDS: THE DISTRICT WILL ACCEPT BIDS IN ELECTRONIC FORM SOLELY THROUGH BIDCOMP/PARITY ON THE OFFICIAL BID FORM CREATED FOR SUCH PURPOSE. EACH BIDDER SUBMITTING AN ELECTRONIC BID UNDERSTANDS AND AGREES BY DOING SO THAT IT IS SOLELY RESPONSIBLE FOR ALL ARRANGEMENTS WITH BIDCOMP/PARITY AND THAT BIDCOMP/PARITY IS NOT ACTING AS AN AGENT OF THE DISTRICT. INSTRUCTIONS AND FORMS FOR SUBMITTING ELECTRONIC BIDS MUST BE OBTAINED FROM BIDCOMP/PARITY AND THE DISTRICT ASSUMES NO RESPONSIBILITY FOR ENSURING OR VERIFYING BIDDER COMPLIANCE WITH THE PROCEDURES OF BIDCOMP/PARITY. THE DISTRICT SHALL ASSUME THAT ANY BID RECEIVED THROUGH BIDCOMP/PARITY HAS BEEN MADE BY A DULY AUTHORIZED AGENT OF THE BIDDER.

THE DISTRICT, THE CO-MUNICIPAL ADVISORS, CO-BOND COUNSEL AND SPECIAL TAX COUNSEL ASSUME NO RESPONSIBILITY FOR ANY ERROR CONTAINED IN ANY BID SUBMITTED ELECTRONICALLY, OR FOR FAILURE OF ANY BID TO BE TRANSMITTED, RECEIVED OR OPENED AT THE OFFICIAL TIME FOR RECEIPT OF BIDS. EACH BIDDER EXPRESSLY ASSUMES THE RISK OF ANY INCOMPLETE, ILLEGIBLE, UNTIMELY OR NONCONFORMING BID SUBMITTED BY ELECTRONIC TRANSMISSION BY SUCH BIDDER, INCLUDING WITHOUT LIMITATION. BY REASON OF GARBLED TRANSMISSIONS. MECHANICAL FAILURE. ENGAGED TELECOMMUNICATIONS LINES, OR ANY OTHER CAUSE ARISING FROM OR RELATING TO SUBMISSION BY ELECTRONIC TRANSMISSION. THE OFFICIAL TIME FOR RECEIPT OF BIDS WILL BE DETERMINED BY THE DISTRICT AT THE PLACE OF BID OPENING, AND THE DISTRICT SHALL NOT BE REQUIRED TO ACCEPT THE TIME KEPT BY BIDCOMP/PARITY AS THE OFFICIAL TIME.

Other Terms. No bid will be accepted after the time specified for receiving bids. No bid will be accepted that contemplates the waiver of any interest or other concession by the bidder as substitute for payment in full of the purchase price. Bids that do not conform to the terms of this Official Notice of Sale may be rejected. See "TERMS OF THE SALE – Right to Reject Bids, Waiver of Irregularities" below.

THE DISTRICT RETAINS ABSOLUTE DISCRETION TO DETERMINE WHETHER ANY BID IS TIMELY AND COMPLETE AND CONFORMS TO THIS OFFICIAL NOTICE OF SALE. THE DISTRICT TAKES NO RESPONSIBILITY FOR INFORMING ANY BIDDER PRIOR TO THE TIME FOR RECEIVING BIDS THAT ANY BID IS INCOMPLETE OR NONCONFORMING OR HAS NOT BEEN RECEIVED.

Interest Rates and Limits on Purchase Price

Interest Rates. Bidders must specify the rate or rates of interest which the Series 2017A Bonds for which they are bidding will bear; provided, that the following limitations apply:

(i) the maximum	interest	rate	bid	for	any	Series	2017A	Bond	may	not	exceed
% per annum;											

- (ii) the minimum interest rate bid for any Series 2017A Bonds maturing on or after June 1, 20_ may not be less than _____% per annum;
- (iii) each interest rate specified in any bid for the Series 2017A Bonds must be a multiple of 1/8 or 1/20 of 1% per annum and a zero rate of interest cannot be named;
- (iv) each Series 2017A Bond shall bear interest from its date to its stated maturity date at the single rate of interest specified in the bid; and
- (v) all the Series 2017A Bonds maturing at any one time shall bear the same rate of interest.

Purchase Price. Bidders may bid to purchase the Series 2017A Bonds from the District with a premium; however, no bid will be considered if the bid is to purchase the Series 2017A Bonds at an aggregate price less than __% or more than __% of the aggregate principal amount of the Series 2017A Bonds.

Additional Terms and Conditions

By submitting a bid, each bidder thereby agrees to the following terms and conditions:

- (1) if any provision in this Official Notice of Sale with respect to the Series 2017A Bonds conflicts with information or terms provided or required by BiDCOMP/Parity, this Official Notice of Sale, including any amendments or modifications issued through BiDCOMP/Parity, will control;
- (2) each bidder will be solely responsible for making necessary arrangements to access BiDCOMP/Parity for purposes of submitting its bid for the Series 2017A Bonds in a timely manner and in compliance with the requirements of this Official Notice of Sale;
- (3) the District will have no duty or obligation to provide or assure access to BiDCOMP/Parity to any bidder, and the District shall not be responsible for the proper operation of, or have any liability for, any delays, interruptions or damages caused by use of BiDCOMP/Parity or any incomplete, inaccurate or untimely bid submitted by any bidder through BiDCOMP/Parity;
- (4) the District is permitting use of BiDCOMP/Parity as a communication mechanism, and not as an agent of the District, to facilitate the submission of electronic bids for the Series 2017A Bonds, BiDCOMP/Parity is acting as an independent contractor, and is not acting for or on behalf of the District;
- (5) the District is not responsible for ensuring or verifying bidder compliance with any procedures established by BiDCOMP/Parity;
- (6) the District may regard the electronic transmission of a bid through BiDCOMP/Parity (including information regarding the purchase price for the Series 2017A Bonds or the interest rates for any maturity of the Series 2017A Bonds) as though

the information were physically submitted and executed on the bidder's behalf by a duly authorized signatory;

- (7) if a bidder's bid is accepted by the District, such bid, this Official Notice of Sale and the information that is transmitted electronically through BiDCOMP/Parity will form a contract, and the bidder will be bound by the terms of such contract; and
- (8) information provided by BiDCOMP/Parity to bidders will form no part of any bid or of any contract between a successful bidder and the District unless that information is included in this Official Notice of Sale or the bid of the successful bidder with respect to the winning bid.

Estimate of True Interest Cost

Each bidder is requested, but not required, to state in each bid the amount of interest payable during the life of the issue on the Series 2017A Bonds to which the bid relates and the percentage TIC to the District (determined as described below), which will be considered as informative only and not binding on either the bidder or the District.

Basis of Award

Unless all bids with respect to the Series 2017A Bonds are rejected, as described below under "– Right to Reject Bids, Waiver of Irregularities," the Series 2017A Bonds will be awarded to the responsible bidder therefor whose bid represents the lowest TIC to the District with respect to the Series 2017A Bonds prior to any change to the principal payment schedule in accordance with this Official Notice of Sale. The TIC will be that nominal annual interest rate which, when compounded semiannually using a 360-day year and used to discount to the dated date of the Series 2017A Bonds all payments of principal and interest payable on the Series 2017A Bonds, results in an amount equal to the purchase price of the Series 2017A Bonds to be received by the District. If two or more bidders offer bids for the Series 2017A Bonds at the same lowest TIC, the District will determine by random selection which bidder will be awarded the Series 2017A Bonds. Bid evaluations or rankings made by BiDCOMP/Parity are not binding on the District.

Right to Reject Bids, Waiver of Irregularities

The District reserves the right, in its sole and absolute discretion, to reject any and all bids for the Series 2017A Bonds, for any reason. The District also reserves the right to waive any irregularity or informality in any bid.

Time of Award

The District, acting through its General Manager, its Director of Finance or its Treasury Manager, or a designee of the General Manager, will take action awarding the Series 2017A Bonds or rejecting all bids for the Series 2017A Bonds not later than four (4) hours after the date and time at which bids with respect to the Series 2017A Bonds are received, unless such period for award is waived by the successful bidder. Prompt notice of the award will be given to the successful bidder.

Good Faith Deposit

General. A good faith deposit (a "Good Faith Deposit") in the amount of \$_____ for the Series 2017A Bonds, payable to the order of the District, is required from the successful bidder for the Series 2017A Bonds subsequent to the award of the sale of the Series 2017A Bonds. The successful bidder for the Series 2017A Bonds is required to pay the applicable Good Faith Deposit for such Series to the District, by wire transfer within two (2) hours after the District has communicated the acceptance of an award for the Series 2017A Bonds, using the following wire instructions:

Wells Fargo Bank, National Association

ABA: 121000248

Acct No.: [4121064679]

If the Good Faith Deposit is not received by that time, the District may rescind the award of sale for the Series 2017A Bonds. If the successful bidder for the Series 2017A Bonds fails to provide the Reoffering Price Certificate, described below under "TERMS OF THE SALE – Reoffering Price Certificate," by ________, 2017, the Good Faith Deposit will be retained by the District.

Liquidated Damages; No Interest. No interest will be paid upon the Good Faith Deposit made by any bidder. The Good Faith Deposit of a successful bidder will, immediately upon acceptance of its bid, become the property of the District to be held and invested for the exclusive benefit of the District. The principal amount of such Good Faith Deposit shall be applied to the purchase price of the Series 2017A Bonds at the time of delivery thereof.

If the purchase price of the Series 2017A Bonds is not paid in full upon delivery of the Series 2017A Bonds, the successful bidder for the Series 2017A Bonds shall have no right in or to the Series 2017A Bonds or to the recovery of its Good Faith Deposit, or to any allowance or credit by reason of such Good Faith Deposit, unless it shall appear that the Series 2017A Bonds would not be validly issued if delivered to the successful bidder in the form and manner proposed. In the event of nonpayment by the successful bidder for the Series 2017A Bonds, the amount of the Good Faith Deposit shall be retained by the District. Notwithstanding the foregoing, should the successful bidder for the Series 2017A Bonds fail to pay for the Series 2017A Bonds at the price and on the date agreed upon, the District retains the right to seek further compensation for damages sustained as a result of the successful bidder so doing.

Reoffering Price Certificate

The successful bidder for the Series 2017A Bonds will, within thirty (30) minutes after being notified of the award of the Series 2017A Bonds, advise the District of the initial public offering prices of the Series 2017A Bonds. The successful bidder for the Series 2017A Bonds will also be required, prior to delivery of the Series 2017A Bonds, to furnish to the District a certificate related to the Series 2017A Bonds, acceptable to Special Tax Counsel (the "Reoffering Price Certificate") and substantially in the form attached hereto as Exhibit A.

Confirmation of Bond Sizing

As described herein under "TERMS OF THE SERIES 2017A BONDS – Adjustment of Principal Payments," the actual principal amount of the Series 2017A Bonds and the actual maturity schedule for the Series 2017A Bonds may be changed by the District after the determination of the winning bid for the Series 2017A Bonds. Any such changes will be reported to the successful bidder for the Series 2017A Bonds by 4:00 p.m. (New York time) on the date and time the bids are received. Any such increase or decrease will be in \$5,000 increments with respect to each maturity date. If any such adjustment occurs, no rebidding or recalculation of the bids submitted will be required or permitted and no successful bid may be withdrawn. The successful bidder will not be permitted to change the interest rates in its bid. The dollar amount bid by the successful bidder will be adjusted to reflect any adjustments in the aggregate principal amount of the Series 2017A Bonds to be issued.

Qualification for Sale; Compliance with Blue Sky Laws

Compliance with Blue Sky and other securities laws and regulations, including the payment of any applicable fees, shall be the sole responsibility of the successful bidder. The District will furnish such information and take such action not inconsistent with law as a successful bidder may request and the District may deem necessary or appropriate to the Series 2017A Bonds for offer and sale under the Blue Sky or other securities laws and regulations of such states and other jurisdictions of the United States of America as may be designated by the successful bidder; provided, however, that the District will not execute a general or special consent to service of process or qualify to do business in connection with such qualification or determination in any jurisdiction.

The successful bidder for the Series 2017A Bonds may not sell, offer to sell or solicit any offer to buy, the Series 2017A Bonds in any jurisdiction where it is unlawful for the successful bidder to make such sale, offer or solicitation, and the successful bidder shall comply with the Blue Sky and other securities laws and regulations of the states and jurisdictions in which the successful bidder sells the Series 2017A Bonds.

Delivery and Payment

Delivery of the Series 2017A Bonds is expected to occur on or about June ___, 2017. The Series 2017A Bonds will be delivered in New York, New York (by Fast Automated Securities Transfer) to DTC. The successful bidder for the Series 2017A Bonds shall pay for the Series 2017A Bonds on the date of delivery in Federal Reserve Bank funds or equivalent immediately available funds. Payment on the delivery date shall be made in an amount equal to the price bid for the Series 2017A Bonds less the amount of the Good Faith Deposit. Any expense of providing immediately available funds, whether by transfer of Federal Reserve Bank funds or otherwise, shall be borne by the successful bidder.

Official Statement

The District has approved a Preliminary Official Statement, dated May ___, 2017, which the District has "deemed final" for purposes of Rule 15c2-12 promulgated by the Securities and Exchange Commission, as amended (hereinafter, "Rule 15c2-12"), although subject to revision,

amendment and completion in conformity with Rule 15c2-12. The District will provide the successful bidder of the Series 2017A Bonds such reasonable number of printed copies of the final Official Statement as such bidder may reasonably request no later than seven (7) business days after the day the Series 2017A Bonds are awarded. Up to fifty (50) copies of the final Official Statement will be furnished without cost to the successful bidder and further copies, if desired, will be made available at the successful bidder's expense. The successful bidder agrees to file the final Official Statement with the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access (EMMA) portal on a timely basis. The successful bidder shall, by accepting the award, agree at all times to comply with the provisions of Rule 15c2-12 and with all applicable rules of the Securities and Exchange Commission and the Municipal Securities Rulemaking Board.

CUSIP Numbers

It is anticipated that CUSIP numbers will be printed on the Series 2017A Bonds, but neither the failure to print such numbers on any Series 2017A Bond nor any error with respect thereto shall constitute cause for a failure or refusal by the successful bidder for the Series 2017A Bonds to accept delivery of and pay for the Series 2017A Bonds in accordance herewith. The successful bidder will be responsible for obtaining CUSIP numbers. All charges of the CUSIP Service Bureau for the assignment of CUSIP numbers for the Series 2017A Bonds shall be paid by the successful bidder for the Series 2017A Bonds.

California Debt and Investment Advisory Commission and Other Fees

The successful bidder for each Series of Bonds will be required to pay all fees due to the California Debt and Investment Advisory Commission ("CDIAC") with respect to that Series under California law. CDIAC will invoice the successful bidder for the Series 2017A Bonds after the delivery of the Series 2017A Bonds. The District expects the successful bidder to pay the applicable fee promptly upon receipt of the invoice.

The successful bidder for the Series 2017A Bonds shall also be required to pay all fees required by DTC, the Securities Industry and Financial Markets Association, the Municipal Securities Rulemaking Board and any other similar entity imposing a fee in connection with the issuance and delivery of the Series 2017A Bonds.

Closing Documents

The District will furnish to the successful bidder for the Series 2017A Bonds at the time of delivery of the Series 2017A Bonds: (1) a certificate certifying (i) that as of and at the time of delivery of the Series 2017A Bonds, there is no action, suit, proceeding or investigation, pending or, to the best knowledge of the District, threatened against or affecting the District, (A) which affects or seeks to prohibit, restrain or enjoin the issuance of the Series 2017A Bonds, (B) in any way contesting the validity of the Series 2017A Bonds or the Indenture or the powers of the District to enter into or perform its obligations under the Series 2017A Bonds and the Indenture or the existence of the District, or (C) wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of the Series 2017A Bonds or the Indenture or the ability of the District to perform its obligations under the Series 2017A Bonds or such documents to which it is a party, (ii) that the Preliminary Official Statement (except for the

omission of certain information permitted to be omitted therefrom in accordance with Rule 15c2-12) did not on the date of sale of the Series 2017A Bonds and the Official Statement did not as of its date and does not on the date of delivery contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements contained therein, in the light of the circumstances under which they were made, not misleading, and (2) a receipt of the District showing that the purchase price of the Series 2017A Bonds of the applicable Series has been received by the District.

Right to Modify or Amend

The District reserves the right to modify or amend this Official Notice of Sale in any respect; provided, however, that any such modification or amendment will be communicated to potential bidders through BiDCOMP/Parity not later than 4:00 p.m. (California time) on the business day preceding the date for receiving bids. Failure of any potential bidder to receive notice of any modification or amendment will not affect the sufficiency of any such notice, the modification or amendment to which such notice relates, or the legality of the sale.

Postponement or Cancellation of Sale

The District reserves the right to postpone or cancel the sale of the Series 2017A Bonds at or prior to the time bids are to be received with respect to the Series 2017A Bonds. Notice of such postponement or cancellation will be given through BiDCOMP/Parity as soon as practicable following such postponement or cancellation. If the sale is postponed, notice of a new sale date will be given through BiDCOMP/Parity not later than 4:00 p.m. (California time) on the business day preceding the new sale date that bids are to be received. On any new sale date, any bidder may submit a bid for the purchase of the Series 2017A Bonds, which shall be in conformity in all respects with the provisions of this Official Notice of Sale except for the time or date and time of sale and any other changes announced through BiDCOMP/Parity.

Failure of any potential bidder to receive notice of cancellation or postponement shall not affect the sufficiency of any such notice, or affect the right of the District to cancel or postpone the sale. If a sale is postponed only, any subsequent bid submitted by a bidder with respect to such sale will supersede any prior bid made. If a sale is cancelled, all bids with respect to such sale will be deemed cancelled.

Additional Information

Electronic copies of the Indenture, this Official Notice of Sale and the Preliminary Official Statement will be furnished to any potential bidder upon request made to one of the District's Co-Municipal Advisors at the address and/or telephone number set forth in this Official Notice of Sale.

Dated: May ___, 2017

/s/ Sophia D. Skoda
Director of Finance
East Bay Municipal Utility District

EXHIBIT A

FORM OF REOFFERING PRICE CERTIFICATE CERTIFICATE OF THE PURCHASER

This certificate is furnished by [Name of Purchaser] ("Purchaser") in connection with the sale of the East Bay Municipal Utility District \$_____ aggregate principal amount of Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Bonds") to establish the "issue price" of the Bonds within the meaning of the Internal Revenue Code of 1986, as amended (the "Code").

undersigned is authorized to execute this certificate on behalf of the Purchaser, which is based on

The undersigned is the duly authorized representative of the Purchaser. The

THE UNDERSIGNED HEREBY CERTIFY AS FOLLOWS:

one or more of (i) personal knowledge, (ii) inquiry deemed adequate by the undersigned, and (iii) institutional knowledge regarding the matters set forth herein.
2. On, 2017 (the "Sale Date"), all of the Bonds have been the subject
of a bona fide offering to the public (excluding bond houses, brokers or similar persons or
organizations acting in the capacity of underwriters or wholesalers) (the "Public"), and on the
Sale Date we reasonably expected that the first price at which at least 10% of the principal
amount of each such maturity would be initially sold to the Public would be the respective price
for that maturity, as set forth in Schedule 1 hereto. For [all of the Bonds / the Bonds scheduled
to mature on, 20], the first price at which at least 10% of the principal amount of
each maturity initially was sold to the Public was the respective price for that maturity shown on
Schedule 1 hereto. For purposes of this certificate, we have assumed that the phrase "bond
houses, brokers or similar persons or organizations acting in the capacity of underwriters or

3. We have no reason to believe that the prices shown on Schedule 1 hereto represent, in the opinion of the Purchaser, prices that are greater than the expected fair market value or market-clearing prices for all of the Bonds as of the Sale Date.

wholesalers" refers only to persons who, to our actual knowledge, are acting in such capacity.

The East Bay Municipal Utility District may rely on the foregoing representations in making its certification as to issue price of the Bonds under the Code, and Orrick, Herrington & Sutcliffe LLP, as special tax counsel, may rely on the foregoing representations in rendering its opinion that the interest on the Bonds is excluded from gross income under section 103 of the Code.

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_	n furnished in this certificate has been derived from and cannot be independently verified by us, we have naterial respect.
Dated:, 2017.	
	[NAME OF PURCHASER]
	By:
	Authorized Signatory

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SCHEDULE 1

[To be attached by Purchaser]

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ESCROW AGREEMENT RELATING TO THE DEFEASANCE OF EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM SUBORDINATED REVENUE REFUNDING BONDS, SERIES 2007B

THIS ESCROW AGREEMENT (the "Escrow Agreement"), dated as of June 1, 2017, is by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as escrow agent hereunder (the "Escrow Agent") and as trustee with respect to the Series 2007B Bonds referred to below (the "Trustee"),

WITNESSETH:

WHEREAS, the District has previously authorized and issued its \$46,670,000 principal amount of East Bay Municipal Utility District Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B, of which \$23,915,000 principal amount remains outstanding (the "Series 2007B Bonds"), pursuant to the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented, including as amended and supplemented by the Eighth Supplemental Supplemental Indenture, dated as of June 1, 2007, by and between the District and the Trustee (collectively, the "Indenture");

WHEREAS, the District has determined to issue \$_____ aggregate principal amount of its East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds"), pursuant to the Indenture, including as amended and supplemented by the Nineteenth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, providing for the issuance of the Series 2017A Bonds, for the purpose, among other purposes, of refunding all of the \$23,915,000 outstanding principal amount of Series 2007B Bonds, hereinafter referred to as the "Refunded Series 2007B Bonds");

WHEREAS, by irrevocably depositing with the Escrow Agent a specified amount of the proceeds from the sale of the Series 2017A Bonds and, if applicable, directing the Escrow Agent to invest such amounts in certain investments satisfying the criteria set forth in Section 10.03 of the Indenture (herein, the "Federal Securities"), if any, the Escrow Agent will have money sufficient to pay on _______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$23,915,000 outstanding principal amount of the Refunded Series 2007B Bonds to be redeemed on such date, together with accrued interest thereon;

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, the District and the Escrow Agent agree as follows:

SECTION 1. <u>Deposit of Moneys</u>. Simultaneously with the delivery of the Series 2017A Bonds, the District shall deposit with the Escrow Agent \$______, representing \$______ of the proceeds of the sale of the Series 2017A Bonds, [and \$______ of amounts contributed by the District]; all to be held in irrevocable escrow by the Escrow Agent, separate and apart from other funds and accounts of the District and the Escrow Agent, in a fund hereby created and established to be known as the "Series 2007B Bonds Escrow Fund," to be applied solely as

provided in this Escrow Agreement. The deposit is in a total amount which has been calculated by [Montague DeRose and Associates, LLC, as co-municipal advisor to the District] in connection with the Series 2017A Bonds and verified by ______ (the "Verification Agent") to be sufficient to pay on ______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$23,915,000 outstanding principal amount of the Refunded Series 2007B Bonds to be redeemed on such date, together with accrued interest thereon.

The Escrow Agent hereby acknowledges receipt of such calculations prepared by [Montague DeRose and Associates, LLC, as co-municipal advisor to the District] in connection with the Series 2017A Bonds, the mathematical accuracy of which has been verified by the Verification Agent in its report relating to the Refunded Series 2007B Bonds (the "Verification Report"), a copy of which has been provided to the Escrow Agent, and the Escrow Agent may rely upon the conclusion of such report to the effect that the amounts to be deposited in the Series 2007B Bonds Escrow Fund as described in this Section 1 will be sufficient to pay on _______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$23,915,000 outstanding principal amount of the Refunded Series 2007B Bonds, together with accrued interest thereon.

SECTION 2. <u>Investment of Moneys</u>. The Escrow Agent agrees to immediately invest any moneys deposited or transferred to the Series 2007B Bonds Escrow Fund in accordance with Section 1 hereof in the Federal Securities (if any) set forth in Schedule B hereto and to deposit such Federal Securities (if any) in the Series 2007B Bonds Escrow Fund. All other amounts in the Series 2007B Bonds Escrow Fund, or if no Federal Securities are set forth in Schedule B hereto, all amounts, not so invested shall be held as cash.

SECTION 3. Reinvestment Requirements. In the event that the Escrow Agent receives any payment of principal or interest from the Federal Securities (if any), prior to the date on which such payment is required for the purposes set forth herein, the Escrow Agent shall, at the written direction of the District, reinvest the amount of such payment, or any portion thereof, in noncallable bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America maturing not later than the date on which such payment or portion thereof is required for the purposes set forth in Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2007B Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, and provided the District has obtained and delivered to the Escrow Agent an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest on the Refunded Series 2007B Bonds or the Series 2017A Bonds for purposes of federal income taxation. Any interest income resulting from investment or reinvestment of moneys pursuant to this Section 3 which is not required for the purposes set forth in this Section 3 or Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2007B Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, shall be paid to the District promptly upon the receipt of such interest income by the Escrow Agent. In the absence of such written direction, the Escrow Agent shall hold such amounts uninvested.

SECTION 4. Substitution of Securities. Upon the written request of the District, and subject to the conditions and limitations herein set forth and applicable governmental rules and regulations, the Escrow Agent shall sell, redeem or otherwise dispose of the Federal Securities (if any), provided there are substituted therefor from the proceeds of such Federal Securities (if any), bonds and other obligations which, as to principal and interest, constitute direct noncallable obligations of, or are unconditionally guaranteed by, the United States of America, but only after the District has obtained and delivered to the Escrow Agent (i) an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest payable on the Refunded Series 2007B Bonds or the Series 2017A Bonds for purposes of federal income taxation, and (ii) a report by the Verification Agent or another independent certified public accountant or firm of certified public accountants to the effect that such substitution and reinvestment will not adversely affect the sufficiency of the amounts of securities, investments and money in the Series 2007B Bonds Escrow Fund to pay the principal or redemption price of, and interest on, the Refunded Series 2007B Bonds in accordance with this Escrow Agreement. The Escrow Agent shall not be liable or responsible for any loss resulting from any reinvestment made pursuant to this Escrow Agreement and in full compliance with the provisions hereof.

SECTION 5. Payment of Refunded Series 2007B Bonds.

(a) Payment. From the maturing principal of the Federal Securities (if any) and the investment income and other earnings thereon, if any, and the moneys on deposit in the Series 2007B Bonds Escrow Fund, the Escrow Agent shall apply the amounts on deposit in the Series 2007B Bonds Escrow Fund to pay on _______, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$23,915,000 outstanding principal amount of the Refunded Series 2007B Bonds maturing on and after June 1, 2018, together with accrued interest thereon. The amount required to be paid on the Refunded Series 2007B Bonds is shown on Schedule C hereto. Any moneys remaining in the Series 2007B Bonds Escrow Fund after payment of the Refunded Series 2007B Bonds in full as provided in this Section 5(a) shall be transferred by the Escrow Agent to the trustee for the Series 2017A Bonds to be applied to the payment of interest on the Series 2017A Bonds.

(b) <u>Irrevocable Instructions to Provide Notice.</u>

(1) The District hereby irrevocably instructs the Escrow Agent (as Trustee for the Refunded Series 2007B Bonds) to provide, within three (3) business days of the date of deposit of amounts pursuant to Section 1 hereof, a notice substantially in the form of Exhibit A that an irrevocable deposit has been made with the Escrow Agent and that the Refunded Series 2007B Bonds have been deemed to be paid in accordance with the Indenture, (i) by first-class mail to the registered owners of the Refunded Series 2007B Bonds, to the Series 2007B Bond Insurer and to Moody's, Standard & Poor's and Fitch (each as defined in the Indenture or Twelfth Supplemental Indenture, as applicable), (ii) by facsimile or other electronic means of communication and by first-class mail to the Securities Depositories (as defined in the Indenture), and (iii) by electronic means of

communication to the Municipal Securities Rulemaking Board ("MSRB") through the Electronic Municipal Market Access System (referred to as "EMMA"), at www.emma.msrb.org; and

(2) The District and the Escrow Agent hereby acknowledge that the District has heretofore instructed the Escrow Agent (as Trustee for the Refunded Series 2007B Bonds) to provide, at least thirty (30) days but not more than sixty (60) days prior to ______, 2017 (i.e., the redemption date), a notice substantially in the form of Exhibit B of the redemption of the Refunded Series 2007B Bonds to be redeemed on such date (i) by first-class mail to the registered owners of the Refunded Series 2007B Bonds, to the Series 2007B Bond Insurer and to Moody's, Standard & Poor's and Fitch, (ii) by facsimile and by first-class mail to the Securities Depositories, (iii) by first-class mail to the Information Services (as defined in the Indenture), and (iv) by electronic means of communication to the MSRB through EMMA, at www.emma.msrb.org, all in accordance with the Indenture.

The Escrow Agent hereby confirms that it will take all actions required to be taken by it under the Indenture and this Escrow Agreement in order to effectuate the defeasance, redemption and payment of the Refunded Series 2007B Bonds as provided herein.

- (c) <u>Unclaimed Moneys</u>. Any moneys which remain unclaimed for two years after the date such moneys have become due and payable hereunder shall be repaid by the Escrow Agent to the District, and the Escrow Agent shall thereupon be released and discharged with respect thereto, and the owners of the Refunded Series 2007B Bonds shall look only to the District for the payment of the Refunded Series 2007B Bonds; provided, however, that before making such repayment to the District, the Escrow Agent shall, at the expense of the District, cause to be mailed to the registered owners of any unredeemed Refunded Series 2007B Bonds that have not been delivered for cancellation, a notice that such money remains unclaimed and that, after a date set forth in the notice, which date shall not be less than thirty (30) days after the date of mailing of the notice, the balance of the money then unclaimed will be returned to the District.
- (d) <u>Priority of Payments</u>. The owners of the Refunded Series 2007B Bonds shall have a lien on moneys and securities, if any, in the Series 2007B Bonds Escrow Fund which are allocable and sufficient to repay the Refunded Series 2007B Bonds, in accordance with this Escrow Agreement, as verified by the Verification Report, until such moneys and such securities, if any, are used and applied as provided in this Escrow Agreement.
- (e) <u>Termination of Obligation</u>. As provided in the Indenture, upon deposit of moneys with the Escrow Agent in the Series 2007B Bonds Escrow Fund as set forth in Section 1 hereof and the purchase of the various Federal Securities, if any, as provided in Section 2 hereof, and notice of, or provision for notice of redemption having been given as set forth in Section 5(b) hereof, all liability of the District in respect of the Refunded Series 2007B Bonds shall cease, terminate, and be completely discharged and satisfied and the owners thereof shall be entitled to the payment of the redemption price thereof only out of the moneys deposited therefor as provided in this Escrow Agreement.

SECTION 6. <u>Performance of Duties</u>. The Escrow Agent agrees to perform only the duties set forth herein and shall have no responsibility to take any action or omit to take any action not set forth herein.

SECTION 7. <u>Escrow Agent's Authority to Make Investments</u>. Except as provided in Section 2, 3 and 4 hereof, the Escrow Agent shall have no power or duty to invest any funds held under this Escrow Agreement or to sell, transfer or otherwise dispose of the cash or the Federal Securities (if any) held hereunder.

With respect to any investments made by the Escrow Agent in accordance with this Escrow Agreement, the District acknowledges that to the extent regulations of the Comptroller of the Currency or other applicable regulatory entity grant the District the right to receive brokerage confirmations of security transactions as they occur, the District specifically waives receipt of such confirmations to the extent permitted by law. The Escrow Agent will furnish to the District periodic cash transaction statements which include detail for all investment transactions made by the Escrow Agent hereunder.

If the Escrow Agent learns that the Department of the Treasury or the Bureau of Public Debt will not, for any reason, accept a subscription for Federal Securities (if any) that is to be submitted pursuant to this Escrow Agreement, the Escrow Agent shall promptly request alternative written investment instructions from the District with respect to escrowed funds which were to be invested in such Federal Securities (if any). The Escrow Agent shall follow such instructions and, upon the maturity of any such alternative investment, the Escrow Agent shall hold funds uninvested and without liability for interest until receipt of further written instructions from the District. In the absence of investment instructions from the District, the Escrow Agent shall not be responsible for the investment of such funds or interest thereon. The Escrow Agent may conclusively rely upon the District's selection of an alternative investment as a determination of the alternative investment's legality and suitability and shall not be liable for any losses related to the alternative investments or for compliance with any yield restriction applicable thereto.

SECTION 8. Indemnity. The District hereby assumes liability for, and agrees (whether or not any of the transactions contemplated hereby are consummated) to indemnify, protect, save and keep harmless the Escrow Agent and its respective successors, assigns, agents, officers, directors, employees and servants, from and against any and all liabilities, obligations, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements (including reasonable legal fees and disbursements) of whatever kind and nature which may be imposed on, incurred by, or asserted against, the Escrow Agent at any time (whether or not also indemnified against the same by the District or any other person under any other agreement or instrument, but without double indemnity) in any way relating to or arising out of the execution, delivery and performance of this Escrow Agreement, the establishment hereunder of the Series 2007B Bonds Escrow Fund, the acceptance of the cash and securities deposited therein, the purchase of the Federal Securities (if any), the retention of the Federal Securities (if any) or the proceeds thereof, if any, and any payment, transfer or other application of moneys or securities by the Escrow Agent in accordance with the provisions of this Escrow Agreement; provided, however, that the District shall not be required to indemnify the Escrow Agent against the Escrow Agent's own negligence or willful misconduct or the negligence or willful misconduct of the Escrow Agent's

employees or the willful breach by the Escrow Agent of the terms of this Escrow Agreement. In no event shall the District or the Escrow Agent be liable to any person by reason of the transactions contemplated hereby other than to each other as set forth in this Section. The indemnities contained in this Section shall survive the termination of this Escrow Agreement and the resignation or removal of the Escrow Agent.

SECTION 9. Responsibilities of Escrow Agent. The Escrow Agent shall not be held to any personal liability whatsoever, in tort, contract, or otherwise, in connection with the execution and delivery of this Escrow Agreement, the establishment of the Series 2007B Bonds Escrow Fund, the acceptance of the moneys or securities deposited therein, the purchase of the Federal Securities (if any), the retention of the Federal Securities (if any), or the proceeds thereof, the sufficiency of the Federal Securities (if any), or cash deposit to pay the Refunded Series 2007B Bonds or any payment, transfer or other application of moneys or obligations by the Escrow Agent in accordance with the provisions of this Escrow Agreement, or by reason of any nonnegligent act, non-negligent omission or non-negligent error of the Escrow Agent made in good faith in the conduct of its duties. The Escrow Agent shall not be liable for any special, indirect or consequential damages. The recitals of fact contained in the "Whereas" clauses herein shall be taken as the statements of the District, and the Escrow Agent assumes no responsibility for the correctness thereof or the correctness of any recitals or statements contained in the Refunded Series 2007B Bonds. The Escrow Agent makes no representation as to the validity of this Escrow Agreement as to the District and, except as otherwise provided herein, the Escrow Agent shall incur no liability with respect thereto. The Escrow Agent shall not be liable in connection with the performance of its duties under this Escrow Agreement except for its own negligence, willful misconduct or willful breach, and the duties and obligations of the Escrow Agent shall be determined by the express provisions of this Escrow Agreement. The Escrow Agent may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, attorneys, custodians or nominees appointed with due care, and shall not be responsible for any willful misconduct or negligence on the part of any agent, attorney, custodian or nominee so appointed. The Escrow Agent shall be under no obligation to inquire into or be in any way responsible for the performance or nonperformance by the District of its obligations. The Escrow Agent may consult with counsel, who may or may not be counsel to the District, and in reliance upon the written opinion of such counsel shall have full and complete authorization and protection in respect of any action taken, suffered or omitted by it in good faith in accordance therewith. Whenever the Escrow Agent shall deem it necessary or desirable that a matter be proved or established prior to taking, suffering, or omitting any action under this Escrow Agreement, such matter may be deemed to be conclusively established by a certificate signed by an officer of the District. No provision of this Escrow Agreement shall require the Escrow Agent to expend or risk its own funds or otherwise incur any financial liability in the performance or exercise of any of its duties hereunder, or in the exercise of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it. The Escrow Agent shall incur no liability for losses arising from any investment made pursuant to the provisions of this Escrow Agreement.

SECTION 10. <u>Resignation of Escrow Agent</u>. The Escrow Agent may at any time resign by giving thirty (30) days prior written notice to the District of such resignation. The District shall promptly appoint a successor Escrow Agent by the resignation date. Resignation of the

Escrow Agent will be effective only upon acceptance of appointment by a successor Escrow Agent. If the District does not appoint a successor, the Escrow Agent may at the expense of the District petition any court of competent jurisdiction for the appointment of a successor Escrow Agent, which court may thereupon, after such notice, if any, as it may deem proper and as may be required by law, appoint a successor Escrow Agent. After receiving a notice of resignation of Escrow Agent, the District may appoint a temporary Escrow Agent to replace the resigning Escrow Agent until the District appoints a successor Escrow Agent. Any such temporary Escrow Agent so appointed by the District shall immediately and without further action be superseded by the successor Escrow Agent so appointed.

SECTION 11. Amendments. This Escrow Agreement is made for the benefit of the District and the owners of the Refunded Series 2007B Bonds and it shall not be repealed, revoked, altered or amended without the written consent of all such owners, the Escrow Agent and the District; provided, however, that the District and the Escrow Agent may, without the consent of, or notice to, such owners, amend this Escrow Agreement or enter into such agreements supplemental to this Escrow Agreement as shall not adversely affect the rights of such owners and as shall not be inconsistent with the terms and provisions of this Escrow Agreement or the Indenture, for any one or more of the following purposes: (i) to cure any ambiguity or formal defect or omission in this Escrow Agreement; (ii) to grant to, or confer upon the Escrow Agent for the benefit of the owners of the Refunded Series 2007B Bonds, any additional rights, remedies, powers or authority that may lawfully be granted to, or conferred upon, such owners or the Escrow Agent; and (iii) to include under this Escrow Agreement additional funds, securities or properties. The Escrow Agent shall be entitled to rely conclusively upon an unqualified opinion of nationally recognized bond counsel with respect to compliance with this Section, including the extent, if any, to which any change, modification, addition or elimination affects the rights of the owners of the Refunded Series 2007B Bonds or that any instrument executed hereunder complies with the conditions and provisions of this Section.

SECTION 12. <u>Term.</u> This Escrow Agreement shall commence upon its execution and delivery and terminate on the later to occur of either (i) the date upon which the Refunded Series 2007B Bonds have been paid in accordance with this Escrow Agreement or (ii) the date upon which no unclaimed moneys remain on deposit with the Escrow Agent pursuant to Section 5(c) of this Escrow Agreement.

SECTION 13. <u>Compensation</u>. The Escrow Agent shall receive its reasonable fees and expenses as previously agreed to by the Escrow Agent and the District; provided, however, that under no circumstances shall the Escrow Agent be entitled to any lien whatsoever on any moneys or obligations in the Series 2007B Bonds Escrow Fund for the payment of fees and expenses for services rendered or expenses incurred by the Escrow Agent under this Escrow Agreement until payment or provision for payment in full of the Refunded Series 2007B Bonds.

SECTION 14. <u>Severability</u>. If any one or more of the covenants or agreements provided in this Escrow Agreement on the part of the District or the Escrow Agent to be performed should be determined by a court of competent jurisdiction to be contrary to law, such covenants or agreements shall be null and void and shall be deemed separate from the remaining covenants

and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Escrow Agreement.

SECTION 15. <u>Counterparts</u>. This Escrow Agreement may be executed in counterparts, any of which shall be regarded for all purposes as an original but all of which shall constitute and be but one and the same instrument.

SECTION 16. <u>Governing Law</u>. This Escrow Agreement shall be governed by and construed in accordance with the laws of the State of California.

SECTION 17. <u>Insufficient Funds</u>. If at any time the moneys and investments (if any) in the Series 2007B Bonds Escrow Fund, including the anticipated proceeds of and earnings thereon, if any, will not be sufficient to make all payments required by this Escrow Agreement, the Escrow Agent shall notify the District, in writing, immediately upon becoming aware of such deficiency, the amount thereof, and, if known to it, the reason therefor. Upon receipt of such notice, the District shall, as the case may be, promptly deposit with the Escrow Agent for deposit in the Series 2007B Bonds Escrow Fund the amount necessary to cure any such deficiency. The Escrow Agent shall have no further responsibility regarding any such deficiency.

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be executed by their duly authorized officers as of the date first above written.

EAST BAY MUNICIPAL UTILITY DISTRICT
By:
Director of Finance
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Escrow Agent and as
Trustee under the Indenture
R _V .

Vice President

SCHEDULE A

DESCRIPTION OF THE REFUNDED SERIES 2007B BONDS

Maturity Date (June 1)	Principal Amount Outstanding	Principal Amount to be Redeemed	Interest Rate	CUSIP
2018	\$3,130,000	\$3,130,000	5.00%	271012BK1
2019	3,260,000	3,260,000	5.00	271012BL9
2020	2,235,000	2,235,000	5.00	271012BM7
2021	2,320,000	2,320,000	5.00	271012BN5
2022	2,350,000	2,350,000	5.00	271012BP0
2023	2,465,000	2,465,000	5.00	271012BQ8
2024	2,585,000	2,585,000	5.00	271012BR6
$2026^{(1)}$	5,570,000	5,570,000	5.00	271012BS4

⁽¹⁾ Term Bond.

SCHEDULE B

FEDERAL SECURITIES

TYPE MATURITY DATE PAR AMOUNT COUPON

[None]

SCHEDULE C

REQUIREMENTS OF THE REFUNDED SERIES 2007B BONDS

		Called	Call	Total
Date	Interest	Principal	Premium	Requirements
//17		\$23,915,000	\$0	

NOTICE OF DEFEASANCE EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM SUBORDINATED REVENUE REFUNDING BONDS, SERIES 2007B

NOTICE IS HEREBY GIVEN to the owners of the above-captioned Bonds (the "Series 2007B Bonds") that the East Bay Municipal Utility District (the "District") has deposited with The Bank of New York Mellon Trust Company, N.A., the successor trustee for the Series 2007B Bonds (the "Trustee") under the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and the Trustee, as amended and supplemented, including by an Eighth Supplemental Indenture, dated as of June 1, 2007 (collectively, the "Indenture"), cash in an amount determined to be sufficient to pay on _____, 2017, the redemption price (*i.e.*, 100% of the principal amount) of the \$23,915,000 outstanding principal amount of the Series 2007B Bonds as more fully identified in the table below (the "Refunded Series 2007B Bonds"), together with accrued interest thereon.

Refunded Series 2007B Bonds

Maturity Date (June 1)	Principal Amount	Interest Rate	CUSIP Number
2018	\$3,130,000	5.00%	271012BK1
2019	3,260,000	5.00	271012BL9
2020	2,235,000	5.00	271012BM7
2021	2,320,000	5.00	271012BN5
2022	2,350,000	5.00	271012BP0
2023	2,465,000	5.00	271012BQ8
2024	2,585,000	5.00	271012BR6
$2026^{(1)}$	5,570,000	5.00	271012BS4

(1) Term Bond	(1)	Term	Rond
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DATED this ____ day of June, 2017.

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

CONDITIONAL NOTICE OF REDEMPTION OF EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM SUBORDINATED REVENUE REFUNDING BONDS, SERIES 2007B

NOTICE IS HEREBY GIVEN to the owners of the above-captioned bonds dated June 6, 2007 (the "Series 2007B Bonds") that, pursuant to the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as amended and supplemented, including by the Eighth Supplemental Indenture, dated as of June 1, 2007, by and between the District and the Trustee (collectively, the "Indenture"), the District has directed the Trustee to call for redemption, on ______, 2017 (the "Redemption Date"), all of the outstanding Series 2007B Bonds, all as more fully identified below:

Refunded Series 2007B Bonds

Maturity Date (June 1)	Principal Amount	Interest Rate	CUSIP Number
2018	\$3,130,000	5.00%	271012BK1
2019	3,260,000	5.00	271012BL9
2020	2,235,000	5.00	271012BM7
2021	2,320,000	5.00	271012BN5
2022	2,350,000	5.00	271012BP0
2023	2,465,000	5.00	271012BQ8
2024	2,585,000	5.00	271012BR6
$2026^{(1)}$	5,570,000	5.00	271012BS4

⁽¹⁾ Torm Rond

Owners of the Series 2007B Bonds to be redeemed must present and surrender such Series 2007B Bonds on the Redemption Date at the applicable address of the Trustee set forth below:

First Class/Registered/Certified:	Express Delivery Only:	By Hand Only:
The Bank of New York Mellon	The Bank of New York	The Bank of New York Mellon
Global Corporate Trust	Mellon	Global Corporate Trust
P.O. Box 2320	Global Corporate Trust	Corporate Trust Window
Dallas, Texas 75221-2320	2001 Bryan Street, 9 th Floor	101 Barclay Street, 1 st Floor East
	Dallas, Texas 75201	New York, New York 10286

PURSUANT TO THE TERMS OF THE INDENTURE, MONEYS SUFFICIENT FOR PAYMENT OF THE REDEMPTION PRICE MUST BE DEPOSITED WITH THE TRUSTEE ON OR BEFORE THE REDEMPTION DATE IN ORDER FOR THE BONDS TO BECOME DUE AND PAYABLE ON THE REDEMPTION DATE AND THE REDEMPTION OF THE BONDS ON THE REDEMPTION DATE IS EXPRESSLY CONDITIONAL UPON THE TIMELY DEPOSIT OF SUCH MONEYS. THE DISTRICT EXPECTS TO DEPOSIT ON OR BEFORE THE REDEMPTION DATE MONEYS TO PAY IN FULL THE REDEMPTION PRICE OF THE BONDS. IF FOR ANY REASON THE DISTRICT DOES NOT DEPOSIT ON OR BEFORE THE REDEMPTION DATE SUFFICIENT MONEYS TO PAY THE REDEMPTION PRICE OF THE BONDS, THIS NOTICE OF REDEMPTION WILL BE AUTOMATICALLY CANCELLED AND ANNULLED AND THE BONDS SHALL REMAIN OUTSTANDING PURSUANT TO THE INDENTURE. IN SUCH EVENT, ANY BONDS PRESENTED FOR PAYMENT (AS PROVIDED ABOVE) WILL BE RETURNED.

On, 2017, the Series 2007B Bonds to be redeemed will be payable at a redemption price of
100.0% of the principal amount together with interest accrued thereon to (but not including), 2017,
the date of redemption. On, 2017, if the deposit of moneys has been made as provided above, there
shall become due and payable upon each Series 2007B Bond to be redeemed, to the person whose name appears
on the registration books of the Trustee as the registered owner thereof, the redemption price thereof as set forth
above. From and after, 2017, interest on the Series 2007B Bonds to be redeemed will cease to accrue.
When inquiring about this redemption, please have the Series 2007B Bond number available. Please inform the customer service representative of the CUSIP number(s) of the affected Series 2007B Bonds. Our customer service number is 1-800-254-2826.
Important Notice
Under the Jobs and Growth Tax Relief Reconciliation Act of 2003, 28% will be withheld if tax identification number is $\underline{\text{not}}$ properly certified.
The CUSIP numbers have been assigned by an independent service for convenience of reference and none of the District, the Trustee or the Escrow Agent shall be held liable for any inaccuracy in any such CUSIP number.
DATED:, 2017
By: THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A., as Trustee
TRUST CONTENT, IV.A., as Trustee

ESCROW AGREEMENT RELATING TO THE DEFEASANCE OF A PORTION OF THE EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2010A

THIS ESCROW AGREEMENT (the "Escrow Agreement"), dated as of June 1, 2017, is by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as escrow agent hereunder (the "Escrow Agent") and as trustee with respect to the Series 2010A Bonds referred to below (the "Trustee").

WITNESSETH:

WHEREAS, the District has previously authorized and issued its \$58,095,000 principal amount of East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2010A, of which \$41,905,000 principal amount remains outstanding (the "Series 2010A Bonds"), pursuant to the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as amended and supplemented, including as amended and supplemented by the Thirteenth Supplemental Indenture, dated as of October 1, 2010, by and between the District and the Trustee (collectively, the "Indenture");

WHEREAS, the District has determined to issue its \$______ aggregate principal amount of its East Bay Municipal Utility District Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds"), pursuant to the Indenture, including as amended and supplemented by the Nineteenth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, providing for the issuance of the Series 2017A Bonds, for the purpose, among others, of refunding [the \$34,100,000 principal amount of the outstanding Series 2010A Bonds maturing on and after June 1, 2021] (such portion of the Series 2010A Bonds being refunded as more fully described in Schedule A hereto and hereinafter referred to as the "Refunded Series 2010A Bonds");

WHEREAS, by irrevocably depositing with the Escrow Agent a specified amount of the proceeds from the sale of the Series 2017A Bonds, together with certain other available funds, and directing the Escrow Agent to invest all or a portion of such amounts in certain investments satisfying the criteria set forth in Section 10.03 of the Indenture (herein, the "Federal Securities"), the Escrow Agent will have money sufficient to pay (i) interest on the Refunded Series 2010A Bonds becoming due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the Refunded Series 2010A Bonds on June 1, 2020 (the "Redemption Date");

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, the District and the Escrow Agent agree as follows:

SECTION 1. Deposit of Moneys. Simultan	neously with the delivery of the Series 2017	7A
Bonds, the District shall deposit with the Escrow As	gent \$, representing \$	of
the proceeds of the sale of the Series 2017A Bonds	[and \$ of amounts contributed by t	the
District]; all to be held in irrevocable escrow by the	Escrow Agent, separate and apart from oth	ner

funds and accounts of the District and the Escrow Agent, in a fund hereby created and established to be known as the "Series 2010A Bonds Escrow Fund," to be applied solely as provided in this Escrow Agreement. The deposit is in a total amount which, taking into account the maturing principal of and interest on the Federal Securities to be purchased therefrom, has been calculated by [Montague DeRose and Associates, LLC, as co-municipal advisor to the District] in connection with the Series 2017A Bonds and verified by ______ (the "Verification Agent") to be sufficient to pay (i) interest on the Refunded Series 2010A Bonds becoming due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the \$_____ principal amount of the Refunded Series 2010A Bonds on June 1, 2020, the Redemption Date therefor.

The Escrow Agent hereby acknowledges receipt of such calculations prepared by [Montague DeRose and Associates, LLC, as co-municipal advisor to the District], the mathematical accuracy of which has been verified by the Verification Agent in its report relating to the Refunded Series 2010A Bonds (the "Verification Report"), a copy of which has been provided to the Escrow Agent, and the Escrow Agent may rely upon the conclusion of such report to the effect that the amounts to be deposited in the Series 2010A Bonds Escrow Fund as described in this Section 1, and taking into account the maturing principal of and interest on the Federal Securities to be purchased therefrom, will be sufficient to pay interest on the Refunded Series 2010A Bonds becoming due on and prior to the Redemption Date, and to pay on the Redemption Date, the redemption price (*i.e.*, 100% of the principal amount) of the Refunded Series 2010A Bonds.

SECTION 2. <u>Investment of Moneys</u>. The Escrow Agent agrees to immediately invest any moneys deposited or transferred to the Series 2010A Bonds Escrow Fund in accordance with Section 1 hereof in the Federal Securities set forth in Schedule B hereto and to deposit such Federal Securities in the Series 2010A Bonds Escrow Fund. All other amounts in the Series 2010A Bonds Escrow Fund not so invested shall be held as cash.

SECTION 3. Reinvestment Requirements. In the event that the Escrow Agent receives any payment of principal or interest from the Federal Securities, prior to the date on which such payment is required for the purposes set forth herein, the Escrow Agent shall, at the written direction of the District, reinvest the amount of such payment, or any portion thereof, in noncallable bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America maturing not later than the date on which such payment or portion thereof is required for the purposes set forth in Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series 2010A Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, and provided the District has obtained and delivered to the Escrow Agent an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest on the Refunded Series 2010A Bonds or the Series 2017A Bonds for purposes of federal income taxation. Any interest income resulting from investment or reinvestment of moneys pursuant to this Section 3 which is not required for the purposes set forth in this Section 3 or Section 5, as verified in the Verification Report originally obtained by the District with respect to the refunding of the Refunded Series

2010A Bonds or in any other report prepared by the Verification Agent or another independent certified public accountant or firm of certified public accountants of favorable national reputation experienced in the refunding of obligations of public agencies, shall be paid to the District promptly upon the receipt of such interest income by the Escrow Agent. In the absence of such written direction, the Escrow Agent shall hold such amounts uninvested.

SECTION 4. Substitution of Securities. Upon the written request of the District, and subject to the conditions and limitations herein set forth and applicable governmental rules and regulations, the Escrow Agent shall sell, redeem or otherwise dispose of the Federal Securities, provided there are substituted therefor from the proceeds of such Federal Securities, bonds and other obligations which, as to principal and interest, constitute direct noncallable obligations of, or are unconditionally guaranteed by, the United States of America, but only after the District has obtained and delivered to the Escrow Agent (i) an unqualified opinion of nationally recognized bond counsel that such reinvestment will not adversely affect the exclusion from gross income of interest payable on the Refunded Series 2010A Bonds or the Series 2017A Bonds for purposes of federal income taxation, and (ii) a report by the Verification Agent or another independent certified public accountant or firm of certified public accountants to the effect that such substitution and reinvestment will not adversely affect the sufficiency of the amounts of securities, investments and money in the Series 2010A Bonds Escrow Fund to pay the principal or redemption price of, and interest on, the Refunded Series 2010A Bonds in accordance with this Escrow Agreement. The Escrow Agent shall not be liable or responsible for any loss resulting from any reinvestment made pursuant to this Escrow Agreement and in full compliance with the provisions hereof.

SECTION 5. Payment of Refunded Series 2010A Bonds.

- (a) Payment. From the maturing principal of the Federal Securities and the investment income and other earnings thereon, if any, and the moneys on deposit in the Series 2010A Bonds Escrow Fund, the Escrow Agent shall apply the amounts on deposit in the Series 2010A Bonds Escrow Fund to pay (i) interest on the Refunded Series 2010A Bonds becoming due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the \$______ principal amount of the Refunded Series 2010A Bonds on June 1, 2020, the Redemption Date therefor. The amounts required to be paid on the Refunded Series 2010A Bonds on each date of payment therefor are shown on Schedule C hereto. Any moneys remaining in the Series 2010A Bonds Escrow Fund after payment of the Refunded Series 2010A Bonds in full as provided in this Section 5(a) shall be transferred by the Escrow Agent to the trustee for the Series 2017A Bonds to be applied to the payment of interest on the Series 2017A Bonds.
- (b) <u>Irrevocable Instructions to Provide Notice</u>. The District hereby irrevocably instructs the Escrow Agent (as Trustee for the Refunded Series 2010A Bonds) to:
 - (1) provide, within three (3) business days of the date of deposit of amounts pursuant to Section 1 hereof, a notice substantially in the form of Exhibit A that an irrevocable deposit has been made with the Escrow Agent and that the Refunded Series 2010A Bonds have been deemed to be paid in accordance with the Indenture, (i) by first-class mail to the registered owners of the Refunded Series 2010A Bonds and to Moody's,

Standard & Poor's and Fitch (each as defined in the Indenture), (ii) by facsimile or other electronic means of communication and by first-class mail to the Securities Depository (as defined in the Indenture), and (iii) by electronic means of communication to the Municipal Securities Rulemaking Board ("MSRB") through the Electronic Municipal Market Access System (referred to as "EMMA"), at www.emma.msrb.org; and

(2) provide, at least thirty (30) days but not more than sixty (60) days prior to June 1, 2020 (*i.e.*, the Redemption Date), a notice substantially in the form of Exhibit B of the redemption of the Refunded Series 2010A Bonds to be redeemed on such date (i) by first-class mail to the registered owners of the Refunded Series 2010A Bonds and to Moody's, Standard & Poor's and Fitch, (ii) by facsimile or other electronic means of communication and by first-class mail to the Securities Depository, and (iii) by electronic means of communication to the MSRB through EMMA, at www.emma.msrb.org, all in accordance with the Indenture.

The Escrow Agent hereby confirms that it will take all actions required to be taken by it under the Indenture and this Escrow Agreement in order to effectuate the defeasance, redemption and payment of the Refunded Series 2010A Bonds as provided herein.

- (c) <u>Unclaimed Moneys</u>. Any moneys which remain unclaimed for two years after the date such moneys have become due and payable hereunder shall be repaid by the Escrow Agent to the District, and the Escrow Agent shall thereupon be released and discharged with respect thereto, and the owners of the Refunded Series 2010A Bonds shall look only to the District for the payment of the Refunded Series 2010A Bonds; provided, however, that before making such repayment to the District, the Escrow Agent shall, at the expense of the District, cause to be mailed to the registered owners of any Refunded Series 2010A Bonds that have not been delivered for payment and cancellation, a notice that such money remains unclaimed and that, after a date set forth in the notice, which date shall not be less than thirty (30) days after the date of mailing of the notice, the balance of the money then unclaimed will be returned to the District.
- (d) <u>Priority of Payments</u>. The owners of the Refunded Series 2010A Bonds shall have a lien on moneys and securities in the Series 2010A Bonds Escrow Fund which are allocable and sufficient to repay the Refunded Series 2010A Bonds, in accordance with this Escrow Agreement, as verified by the Verification Report, until such moneys and such securities are used and applied as provided in this Escrow Agreement.
- (e) <u>Termination of Obligation</u>. As provided in the Indenture, upon deposit of moneys with the Escrow Agent in the Series 2010A Bonds Escrow Fund as set forth in Section 1 hereof and the purchase of the various Federal Securities as provided in Section 2 hereof, and notice of, or provision for notice of redemption having been given as set forth in Section 5(b) hereof, all liability of the District in respect of the Refunded Series 2010A Bonds shall cease, terminate, and be completely discharged and satisfied and the owners thereof shall be entitled to the payment of the redemption price thereof only out of the moneys deposited therefor as provided in this Escrow Agreement.

SECTION 6. <u>Performance of Duties</u>. The Escrow Agent agrees to perform only the duties set forth herein and shall have no responsibility to take any action or omit to take any action not set forth herein.

SECTION 7. Escrow Agent's Authority and Duties in Making Investments. Except as provided in Sections 2, 3 and 4 hereof, the Escrow Agent shall have no power or duty to invest any funds held under this Escrow Agreement or to sell, transfer or otherwise dispose of the cash or the Federal Securities held hereunder.

With respect to any investments made by the Escrow Agent in accordance with this Escrow Agreement, the District acknowledges that to the extent regulations of the Comptroller of the Currency or other applicable regulatory entity grant the District the right to receive brokerage confirmations of security transactions as they occur, the District specifically waives receipt of such confirmations to the extent permitted by law. The Escrow Agent will furnish to the District periodic cash transaction statements which include detail for all investment transactions made by the Escrow Agent hereunder.

If the Escrow Agent learns that the Department of the Treasury or the Bureau of Public Debt will not, for any reason, accept a subscription for Federal Securities that is to be submitted pursuant to this Escrow Agreement, the Escrow Agent shall promptly request alternative written investment instructions from the District with respect to escrowed funds which were to be invested in such Federal Securities. The Escrow Agent shall follow such instructions and, upon the maturity of any such alternative investment, the Escrow Agent shall hold funds uninvested and without liability for interest until receipt of further written instructions from the District. In the absence of investment instructions from the District, the Escrow Agent shall not be responsible for the investment of such funds or interest thereon. The Escrow Agent may conclusively rely upon the District's selection of an alternative investment as a determination of the alternative investment's legality and suitability and shall not be liable for any losses related to the alternative investments or for compliance with any yield restriction applicable thereto.

SECTION 8. Indemnity. The District hereby assumes liability for, and agrees (whether or not any of the transactions contemplated hereby are consummated) to indemnify, protect, save and keep harmless the Escrow Agent and its respective successors, assigns, agents, officers, directors, employees and servants, from and against any and all liabilities, obligations, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements (including reasonable legal fees and disbursements) of whatever kind and nature which may be imposed on, incurred by, or asserted against, the Escrow Agent at any time (whether or not also indemnified against the same by the District or any other person under any other agreement or instrument, but without double indemnity) in any way relating to or arising out of the execution, delivery and performance of this Escrow Agreement, the establishment hereunder of the Series 2010A Bonds Escrow Fund, the acceptance of the cash and securities deposited therein, the purchase of the Federal Securities, the retention of the Federal Securities or the proceeds thereof, and any payment, transfer or other application of moneys or securities by the Escrow Agent in accordance with the provisions of this Escrow Agreement; provided, however, that the District shall not be required to indemnify the Escrow Agent against the Escrow Agent's own negligence or willful misconduct or the negligence or willful misconduct of the Escrow Agent's agents, officers, directors, employees or servants or the willful breach by the Escrow Agent or the

Escrow Agent's agents, officers, directors, employees or servants of the terms of this Escrow Agreement. In no event shall the District or the Escrow Agent be liable to any person by reason of the transactions contemplated hereby other than to each other as set forth in this Section. The indemnities contained in this Section shall survive the termination of this Escrow Agreement and the resignation or removal of the Escrow Agent.

SECTION 9. Responsibilities of Escrow Agent. The Escrow Agent shall not be held to any personal liability whatsoever, in tort, contract, or otherwise, in connection with the execution and delivery of this Escrow Agreement, the establishment of the Series 2010A Bonds Escrow Fund, the acceptance of the moneys or securities deposited therein, the purchase of the Federal Securities, the retention of the Federal Securities, or the proceeds thereof, the sufficiency of the Federal Securities, or cash deposit to pay the Refunded Series 2010A Bonds or any payment, transfer or other application of moneys or obligations by the Escrow Agent in accordance with the provisions of this Escrow Agreement, or by reason of any non-negligent act, non-negligent omission or non-negligent error of the Escrow Agent made in good faith in the conduct of its duties. The Escrow Agent shall not be liable for any special, indirect or consequential damages. The recitals of fact contained in the "Whereas" clauses herein shall be taken as the statements of the District, and the Escrow Agent assumes no responsibility for the correctness thereof or the correctness of any recitals or statements contained in the Refunded Series 2010A Bonds. The Escrow Agent makes no representation as to the validity of this Escrow Agreement as to the District and, except as otherwise provided herein, the Escrow Agent shall incur no liability with respect thereto. The Escrow Agent shall not be liable in connection with the performance of its duties under this Escrow Agreement except for its own negligence, willful misconduct or willful breach, and the duties and obligations of the Escrow Agent shall be determined by the express provisions of this Escrow Agreement. The Escrow Agent may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, attorneys, custodians or nominees appointed with due care, and shall not be responsible for any willful misconduct or negligence on the part of any agent, attorney, custodian or nominee so appointed. The Escrow Agent shall be under no obligation to inquire into or be in any way responsible for the performance or nonperformance by the District of its obligations. The Escrow Agent may consult with counsel, who may or may not be counsel to the District, and in reliance upon the written opinion of such counsel shall have full and complete authorization and protection in respect of any action taken, suffered or omitted by it in good faith in accordance therewith. Whenever the Escrow Agent shall deem it necessary or desirable that a matter be proved or established prior to taking, suffering, or omitting any action under this Escrow Agreement, such matter may be deemed to be conclusively established by a certificate signed by an officer of the District. No provision of this Escrow Agreement shall require the Escrow Agent to expend or risk its own funds or otherwise incur any financial liability in the performance or exercise of any of its duties hereunder, or in the exercise of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it. The Escrow Agent shall incur no liability for losses arising from any investment made pursuant to the provisions of this Escrow Agreement.

Any company into which the Escrow Agent may be merged or converted or with which it may be consolidated or any company resulting from any merger, conversion or consolidation to which it shall be a party or any company to which the Escrow Agent may sell or transfer all or

substantially all of its corporate trust business shall be the successor to the Escrow Agent without the execution or filing of any paper or further act, anything herein to the contrary notwithstanding.

SECTION 10. Resignation of Escrow Agent. The Escrow Agent may at any time resign by giving thirty (30) days prior written notice to the District of such resignation. The District shall promptly appoint a successor Escrow Agent by the resignation date. Resignation of the Escrow Agent will be effective only upon acceptance of appointment by a successor Escrow Agent. If the District does not appoint a successor, the Escrow Agent may at the expense of the District petition any court of competent jurisdiction for the appointment of a successor Escrow Agent, which court may thereupon, after such notice, if any, as it may deem proper and as may be required by law, appoint a successor Escrow Agent. After receiving a notice of resignation of Escrow Agent, the District may appoint a temporary Escrow Agent to replace the resigning Escrow Agent until the District appoints a successor Escrow Agent. Any such temporary Escrow Agent so appointed by the District shall immediately and without further action be superseded by the successor Escrow Agent so appointed.

SECTION 11. Amendments. This Escrow Agreement is made for the benefit of the District and the owners of the Refunded Series 2010A Bonds and it shall not be repealed, revoked, altered or amended without the written consent of all such owners, the Escrow Agent and the District; provided, however, that the District and the Escrow Agent may, without the consent of, or notice to, such owners, amend this Escrow Agreement or enter into such agreements supplemental to this Escrow Agreement as shall not adversely affect the rights of such owners and as shall not be inconsistent with the terms and provisions of this Escrow Agreement or the Indenture, for any one or more of the following purposes: (i) to cure any ambiguity or formal defect or omission in this Escrow Agreement; (ii) to grant to, or confer upon the Escrow Agent for the benefit of the owners of the Refunded Series 2010A Bonds, any additional rights, remedies, powers or authority that may lawfully be granted to, or conferred upon, such owners or the Escrow Agent; and (iii) to include under this Escrow Agreement additional funds, securities or properties. The Escrow Agent shall be entitled to rely conclusively upon an unqualified opinion of nationally recognized bond counsel with respect to compliance with this Section, including the extent, if any, to which any change, modification, addition or elimination affects the rights of the owners of the Refunded Series 2010A Bonds or that any instrument executed hereunder complies with the conditions and provisions of this Section.

SECTION 12. <u>Term.</u> This Escrow Agreement shall commence upon its execution and delivery and terminate on the later to occur of either (i) the date upon which the Refunded Series 2010A Bonds have been paid in accordance with this Escrow Agreement or (ii) the date upon which no unclaimed moneys remain on deposit with the Escrow Agent pursuant to Section 5(c) of this Escrow Agreement.

SECTION 13. <u>Compensation</u>. The Escrow Agent shall receive its reasonable fees and expenses as previously agreed to by the Escrow Agent and the District; provided, however, that under no circumstances shall the Escrow Agent be entitled to any lien whatsoever on any moneys or obligations in the Series 2010A Bonds Escrow Fund for the payment of fees and

expenses for services rendered or expenses incurred by the Escrow Agent under this Escrow Agreement until payment or provision for payment in full of the Refunded Series 2010A Bonds.

SECTION 14. <u>Severability</u>. If any one or more of the covenants or agreements provided in this Escrow Agreement on the part of the District or the Escrow Agent to be performed should be determined by a court of competent jurisdiction to be contrary to law, such covenants or agreements shall be null and void and shall be deemed separate from the remaining covenants and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Escrow Agreement.

SECTION 15. <u>Counterparts</u>. This Escrow Agreement may be executed in counterparts, any of which shall be regarded for all purposes as an original but all of which shall constitute and be but one and the same instrument.

SECTION 16. <u>Governing Law</u>. This Escrow Agreement shall be governed by and construed in accordance with the laws of the State of California.

SECTION 17. <u>Insufficient Funds</u>. If at any time the moneys and investments in the Series 2010A Bonds Escrow Fund, including the anticipated proceeds of and earnings thereon will not be sufficient to make all payments required by this Escrow Agreement, the Escrow Agent shall notify the District, in writing, immediately upon becoming aware of such deficiency, the amount thereof, and, if known to it, the reason therefor. Upon receipt of such notice, the District shall, as the case may be, promptly deposit with the Escrow Agent for deposit in the Series 2010A Bonds Escrow Fund the amount necessary to cure any such deficiency. The Escrow Agent shall have no further responsibility regarding any such deficiency.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be executed by their duly authorized officers as of the date first above written.

EAST BAY MUNICIPAL UTILITY DISTRICT
By:
Director of Finance
THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., as Escrow Agent and as Trustee under the Indenture
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Dyn

Vice President

SCHEDULE A

DESCRIPTION OF THE REFUNDED SERIES 2010A BONDS

Maturity Date (June 1)	Principal Amount Outstanding	Interest Rate	CUSIP
2021	\$2,750,000	5.00%	271012DA1
2022	2,885,000	5.00	271012DB9
2023	3,000,000	4.00	271012DK9
2023	50,000	3.00	271012DC7
2024	3,175,000	5.00	271012DD5
2025	3,325,000	5.00	271012DE3
2026	3,510,000	5.00	271012DF0
2027	5,085,000	5.00	271012DG8
2028	9,900,000	5.00	271012DH6
2029	420,000	4.00	271012DJ2

SCHEDULE B

FEDERAL SECURITIES

TYPE MATURITY DATE PAR AMOUNT COUPON

SCHEDULE C

REQUIREMENTS OF THE REFUNDED SERIES 2010A BONDS

Date	Interest	Maturing Principal	Called Principal	Call Premium	Total Requirements
12/01/17					
06/01/18					
12/01/18					
06/01/19					
12/01/19					
06/01/20			\$		

EXHIBIT A

FORM OF DEFEASANCE NOTICE TO BE GIVEN

NOTICE OF PARTIAL DEFEASANCE EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2010A

NOTICE IS HEREBY GIVEN to the owners of the above-captioned bonds (the "Series 2010A Bonds") that the East Bay Municipal Utility District (the "District") has deposited with The Bank of New York Mellon Trust Company, N.A., the trustee for the Series 2010A Bonds (the "Trustee") under the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and the Trustee, as amended and supplemented, including by an Thirteenth Supplemental Indenture, dated as of October 1, 2010 (collectively, the "Indenture"), cash and noncallable bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America, paying interest and principal in an amount which, together with the amounts held as cash, shall be sufficient to pay (i) interest on such portion of the Series 2010A Bonds as more fully identified in the table below (the "Refunded Series 2010A Bonds") as the same shall become due on and prior to June 1, 2020, and (ii) the redemption price (*i.e.*, 100% of the principal amount) of the \$[34,100,000] principal amount of the Refunded Series 2010A Bonds on June 1, 2020 (the "Redemption Date").

Refunded Series 2010A Bonds

Maturity Date (June 1)	Principal Amount Outstanding	Interest Rate	CUSIP Number
2021	\$2,750,000	5.000%	271012DA1
2022	2,885,000	5.000	271012DB9
2023	3,000,000	4.000	271012DK9
2023	50,000	3.000	271012DC7
2024	3,175,000	5.000	271012DD5
2025	3,325,000	5.000	271012DE3
2026	3,510,000	5.000	271012DF0
2027	5,085,000	5.000	271012DG8
2028	9,900,000	5.000	271012DH6
2029	420,000	4.000	271012DJ2

In accordance with the Indenture, all liability of the District in respect of such Refunded Series 2010A Bonds shall cease and terminate and be completely discharged and satisfied and all payments of the interest on, and the principal or redemption price of, such Refunded Series 2010A Bonds shall be paid only from moneys on deposit with the Trustee and available as aforesaid.

DATED this _____ day of ______, 2017.

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

EXHIBIT B

FORM OF REDEMPTION NOTICE TO BE GIVEN

NOTICE OF REDEMPTION OF EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2010A

NOTICE IS HEREBY GIVEN to the owners of the above-captioned bonds dated October 20, 2010 (the "Series 2010A Bonds") that, pursuant to the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as amended and supplemented, including by the Thirteenth Supplemental Indenture, dated as of October 1, 2010, by and between the District and the Trustee (collectively, the "Indenture"), the District has directed the Trustee to call for redemption, on June 1, 2020 (the "Redemption Date"), [a portion of] the outstanding principal amount of the Series 2010A Bonds, all as more fully identified below:

Refunded Series 2010A Bonds

Maturity Date (June 1)	Principal Amount Refunded	Interest Rate	CUSIP Number
2021	\$2,750,000	5.000%	271012DA1
2022	2,885,000	5.000	271012DB9
2023	3,000,000	4.000	271012DK9
2023	50,000	3.000	271012DC7
2024	3,175,000	5.000	271012DD5
2025	3,325,000	5.000	271012DE3
2026	3,510,000	5.000	271012DF0
2027	5,085,000	5.000	271012DG8
2028	9,900,000	5.000	271012DH6
2029	420,000	4.000	271012DJ2

Owners of the Series 2010A Bonds to be redeemed must present and surrender such Series 2010A Bonds on the Redemption Date at the applicable address of the Trustee set forth below:

First Class/Registered/Certified:	Express Delivery Only:	By Hand Only:
The Bank of New York Mellon	The Bank of New York Mellon	The Bank of New York Mellon
Global Corporate Trust	Global Corporate Trust	Global Corporate Trust
P.O. Box 2320	2001 Bryan Street, 9 th Floor	Corporate Trust Window
Dallas, Texas 75221-2320	Dallas, Texas 75201	101 Barclay Street, 1 st Floor East
		New York, New York 10286

On June 1, 2020, the Series 2010A Bonds to be redeemed will be payable at a redemption price equal to 100.0% of the principal amount thereof, together with interest accrued and unpaid thereon to (but not including) June 1, 2020, the date of redemption, without premium. On June 1, 2020, there shall become due and payable upon each Series 2010A Bond to be redeemed, to the person whose name appears on the registration books of the Trustee as the registered owner thereof, the redemption price thereof as set forth above. From and after June 1, 2020, interest on the Series 2010A Bonds to be redeemed will cease to accrue.

When inquiring about this redemption, please have the Series 2010A Bond number available. Please inform the customer service representative of the CUSIP number(s) of the affected Series 2010A Bonds. Our customer service number is 1-800-254-2826.

Important Notice

Under the Jobs and Growth Tax Relief Reconciliation Act of 2003, 28% will be withheld if tax identification number is <u>not</u> properly certified.

The CUSIP numbers have been assigned by an independent service for convenience of reference and none of the District, the Trustee or the Escrow Agent shall be held liable for any inaccuracy in any such CUSIP number.

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DATFD.	2020					

By: THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee

CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (this "Disclosure Agreement"), dated _______, 2017, is executed and delivered by the East Bay Municipal Utility District (the "District") and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee") in connection with the issuance of \$______ aggregate principal amount of Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Bonds"). The Bonds are being issued pursuant to a Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and the Trustee, as amended and supplemented, including as amended and supplemented by the Nineteenth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Bonds (collectively, the "Indenture"). In connection therewith the District and the Trustee covenant and agree as follows:

Section 1. <u>Purpose of this Disclosure Agreement</u>. This Disclosure Agreement is being executed and delivered by the District and the Trustee for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriter (as defined herein) in complying with Securities and Exchange Commission Rule 15c2-12(b)(5).

Section 2. <u>Definitions</u>. In addition to the definitions set forth above and in the Indenture, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this section, the following capitalized terms shall have the following meanings:

"Annual Report" shall mean any Annual Report provided by the District pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

"Beneficial Owner" shall mean any person who (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries); or (b) is treated as the owner of any Bonds for federal income tax purposes.

"Disclosure Representative" shall mean the Director of Finance or the Treasury Manager of the District or a designee of the Director of Finance, or such other officer or employee as the District shall designate in writing to the Trustee from time to time.

"Dissemination Agent" shall mean the Trustee, acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated in writing by the District and which has filed with the Trustee a written acceptance of such designation.

"Holder" shall mean either the registered owners of the Bonds or, if the Bonds are registered in the name of The Depository Trust Company or another recognized depository, any applicable participant in such depository system.

"Listed Event" shall mean any of the events listed in Section 5(a) of this Disclosure Agreement.

"MSRB" shall mean the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934 or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at http://emma.msrb.org.

"Official Statement" shall mean the Official Statement for the Bonds dated ______, 2017, as it may be updated prior to the delivery of the Bonds.

"Participating Underwriter" shall mean the initial purchaser of the Bonds listed on the cover page of the Official Statement required to comply with the Rule in connection with offering of the Bonds.

"Rule" shall mean Rule 15c2-12(b)(5) adopted by the SEC under the Securities Exchange Act of 1934, as the same may be amended from time to time.

"SEC" shall mean the United States Securities and Exchange Commission.

Section 3. <u>Provision of Annual Reports.</u>

- (a) The District shall, or shall cause the Dissemination Agent to, not later than December 31 of each year in which the Bonds are outstanding, commencing with the report for the 2016-17 Fiscal Year (which is due not later than December 31, 2017), provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement. The Annual Report must be submitted in electronic format, accompanied by such identifying information as prescribed by the MSRB. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Agreement; *provided* that if the audited financial statements of the District are not available by the date required above for the filing of the Annual Report, the District shall submit the audited financial statements as soon thereafter as available. If the District's Fiscal Year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(c).
- (b) If the District is unable to provide to the MSRB an Annual Report by the date required in subsection (a), the District shall send to the MSRB a notice in substantially the form attached hereto as Exhibit A.
 - (c) The Dissemination Agent shall:
 - (i) determine the electronic filing address of, and then-current procedures for submitting Annual Reports to, the MSRB each year prior to the date for providing the Annual Report; and
 - (ii) file a report with the District and (if the Dissemination Agent is not the Trustee, the Trustee) certifying that the Annual Report has been provided to the MSRB pursuant to this Disclosure Agreement, and stating the date it was provided.
- Section 4. <u>Content of Annual Reports</u>. The District's Annual Report shall contain or include by reference the following categories or similar categories of information updated to incorporate information for the most recent fiscal or calendar year, as applicable (the tables referred to below are those appearing in the Official Statement relating to the Bonds):
- (a) The audited financial statements of the District for the prior Fiscal Year, prepared in accordance with Generally Accepted Accounting Principles, as promulgated, to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the District's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available;
 - (b) A table showing the Wastewater System sources of funds;

- (c) A table showing Wastewater System rates and charges for the preceding Fiscal Year;
- (d) A table showing average daily wastewater flows of the Wastewater System for the preceding Fiscal Year;
- (e) A table showing outstanding Wastewater System debt as of the preceding Fiscal Year; and
- (f) A table showing Wastewater System revenues, operating and maintenance costs, debt service on Wastewater System revenue bonds and debt service coverage for the Wastewater System revenue bonds for the most recent Fiscal Year.

Financial and operating information relating to the District referenced in items 3(b)-(f) above may be updated from time to time, and such updates may involve displaying data in a different format or table or eliminating data that is no longer material.

Any or all of the items listed above may also be included by specific reference to other documents, including official statements of debt issues of the District or related public entities, which have been submitted to the MSRB or the SEC. If any document included by reference is a final official statement, it must be available from the MSRB. The District shall clearly identify each such other document so included by reference.

Section 5. Reporting of Significant Events.

- (a) Pursuant to the provisions of this section, upon the occurrence of any of the following events (in each case to the extent applicable) with respect to the Bonds, the District shall give, or cause to be given by so notifying the Dissemination Agent in writing and instructing the Dissemination Agent to give, notice of the occurrence of such event, in each case, pursuant to Section 5(c) hereof:
 - 1. principal or interest payment delinquencies;
 - 2. non-payment related defaults, if material;
 - 3. modifications to the rights of the Bondholders, if material;
 - 4. optional, contingent or unscheduled calls, if material, and tender offers;
 - 5. defeasances;
 - 6. rating changes;
 - 7. adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds;
 - 8. unscheduled draws on the debt service reserves reflecting financial difficulties;
 - 9. unscheduled draws on the credit enhancements reflecting financial difficulties;
 - 10. substitution of the credit or liquidity providers or their failure to perform;

- 11. release, substitution or sale of property securing repayment of the Bonds, if material;
- 12. bankruptcy, insolvency, receivership or similar proceedings of the District, which shall occur as described below;
- 13. appointment of a successor or additional trustee or the change of name of a trustee, if material, or;
- 14. the consummation of a merger, consolidation, or acquisition involving the District or the sale of all or substantially all of the assets of the Wastewater System of the District other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material.

For these purposes, any event described in item 12 of this Section 5(a) is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the District in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the District, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the District.

- (b) Upon receipt of notice from the District and instruction by the District to report the occurrence of any Listed Event, the Dissemination Agent shall provide notice thereof to the MSRB in accordance with Section 5(c) hereof. In the event the Dissemination Agent shall obtain actual knowledge of the occurrence of any of the Listed Events, the Dissemination Agent shall, immediately after obtaining such knowledge, contact the Disclosure Representative, inform such person of the event, and request that the District promptly notify the Dissemination Agent in writing whether or not to report the event pursuant to Section 5(c). For purposes of this Disclosure Agreement, "actual knowledge" of the occurrence of such Listed Event shall mean actual knowledge by the Dissemination Agent, if other than the Trustee, and if the Dissemination Agent is the Trustee, then by the officer at the corporate trust office of the Trustee with regular responsibility for the administration of matters related to the Indenture. The Dissemination Agent shall have no responsibility to determine the materiality, if applicable, of any of the Listed Events.
- (c) The District, or the Dissemination Agent, if the Dissemination Agent has been instructed by the District to report the occurrence of a Listed Event, shall file a notice of such occurrence with the MSRB in a timely manner not more than ten (10) business days after the occurrence of the event.
- Section 6. <u>Termination of Reporting Obligation</u>. The District's obligations under this Disclosure Agreement shall terminate with respect to all Bonds upon the maturity, defeasance, prior redemption, acceleration or payment in full of all of such Bonds.
- Section 7. <u>Dissemination Agent</u>. The District may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. If at any time there is not any other designated Dissemination Agent, the Trustee, upon notice from the District, shall be the Dissemination Agent. The initial Dissemination Agent shall be the Trustee. The

Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the District pursuant to this Disclosure Agreement. The Dissemination Agent shall receive compensation for the services provided pursuant to this Disclosure Agreement.

- Section 8. <u>Amendment; Waiver</u>. Notwithstanding any other provision of this Disclosure Agreement, the District and the Dissemination Agent may amend this Disclosure Agreement (and, to the extent that any such amendment does not materially change or increase its obligations hereunder, the Dissemination Agent shall agree to any amendment so requested by the District), and any provision of this Disclosure Agreement may be waived; *provided*, that the following conditions are satisfied:
- (a) If the amendment or waiver relates to the provisions of Section 3(a), Section 4 or Section 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;
- (b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and
- (c) The amendment or waiver does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Holders or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Agreement, the District shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the District. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under Section 5(c), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

- Section 9. <u>Filings with the MSRB</u>. All information, operating data, financial statements, notices and other documents provided to the MSRB in accordance with this Disclosure Agreement shall be provided in an electronic format prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.
- Section 10. <u>Additional Information</u>. Nothing in this Disclosure Agreement shall be deemed to prevent the District from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If the District chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Agreement, the District shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.
- Section 11. <u>Default</u>. In the event of a failure of the District or the Dissemination Agent to comply with any provision of this Disclosure Agreement, the Trustee may (and, at the request of any Participating Underwriter or the Holders of at least 25% of the aggregate principal amount of Outstanding Bonds and upon provision of indemnification satisfactory to the Trustee, shall), or any Holder or

Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District or the Dissemination Agent, as the case may be, to comply with its obligations under this Disclosure Agreement. A default under this Disclosure Agreement shall not be deemed an Event of Default under the Indenture, and the sole remedy under this Disclosure Agreement in the event of any failure of the District or the Dissemination Agent to comply with this Disclosure Agreement shall be an action to compel performance hereunder.

Section 12. <u>Duties, Immunities and Liabilities of Trustee and Dissemination Agent.</u> Article VIII of the Indenture is hereby made applicable to this Disclosure Agreement as if the Disclosure Agreement were (solely for this purpose) contained in the Indenture. The Dissemination Agent shall be entitled to the protections and limitations on liability afforded to the Trustee thereunder. The Dissemination Agent (if other than the Trustee in its capacity as Dissemination Agent) shall have only such duties as are specifically set forth in this Disclosure Agreement, and the District agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys fees) of defending against any claim of liability, but excluding any loss, expense and liabilities due to the Dissemination Agent's negligence or willful misconduct. The obligations of the District under this Section 12 shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

Section 13. <u>Notices</u>. Any notices or communications to or among any of the parties to this Disclosure Agreement may be given as follows:

To the District:

To the Dissemination Agent:

East Bay Municipal Utility District 375 Eleventh Street, MS 801 Oakland, California 94607-4240 Attention: Debt Administrator

Phone: 510-287-0248 Fax: 510-287-0293 The Bank of New York Mellon Trust Company, N.A. 100 Pine Street, Suite 3150 San Francisco, California 94111

Phone: 415-263-2420 Fax: 415-399-1647

Section 14. <u>Beneficiaries</u>. This Disclosure Agreement shall inure solely to the benefit of the District, the Trustee, the Dissemination Agent, the Participating Underwriters and the Holders and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

Section 15. <u>Counterparts</u>. This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHE and the Trustee by their duly	REOF, this Disclosure Agreement has been executed on behalf of the District authorized representatives.
Dated:, 2017	EAST BAY MUNICIPAL UTILITY DISTRICT
	By:
	Sophia D. Skoda Director of Finance
Dated:, 2017	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee
	By:
	Vice President

EXHIBIT A

NOTICE TO MSRB OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer:	EAST BAY MUNICIPAL UTILITY DISTRICT
Name of Bond Issue:	\$ Wastewater System Revenue/Refunding Bonds, Series 2017A
Date of Issuance:	, 2017
not provided an Annua Continuing Disclosure New York Mellon Trus of the Nineteenth Supp Trustee, supplementing April 1, 1990, as suppl	EREBY GIVEN that the East Bay Municipal Utility District (the "District") has I Report with respect to the above-named Bonds as required by Section 3(a) of the Agreement, dated, 2017, by and between the District and The Bank of St Company, N.A., as trustee (the "Trustee") and in accordance with Section 35.14 elemental Indenture, dated as of June 1, 2017, by and between the District and the g the Wastewater System Subordinated Revenue Bond Indenture, dated as of emented and amended, by and between the District and the Trustee, providing for ads. The District anticipates that the Annual Report will be filed by,
Dated:	, 20
	THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., as Trustee on behalf of the District
	By:

cc: East Bay Municipal Utility District

PRELIMINARY OFFICIAL STATEMENT DATED ______, 2017

NEW ISSUE – BOOK ENTRY ONLY

See "RATINGS" herein.

In the opinion of Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Initial Purchaser, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2017A Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and is exempt from State of California personal income taxes. In the further opinion of Special Tax Counsel, interest on the Series 2017A Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Special Tax Counsel observes that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. Special Tax Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Series 2017A Bonds. See "TAX MATTERS."

[DISTRICT LOGO]

\$____*

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California)

WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

Dated: Date of Delivery

Due: June 1, as shown on inside cover page

This cover page contains certain information for general reference only. It is not intended to be a summary of the security or terms of this issue. Investors are advised to read the entire Official Statement to obtain information essential to the making of an informed investment decision. Capitalized terms used on this cover page and not otherwise defined shall have the meanings set forth herein.

The East Bay Municipal Utility District (the "District") is issuing its Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds") pursuant to a Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by a Nineteenth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Series 2017A Bonds (collectively, the "Indenture"). The Series 2017A Bonds will be issued in fully-registered form, without coupons, initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Series 2017A Bonds. Beneficial ownership interests in the Series 2017A Bonds may be purchased in book-entry form only in denominations of \$5,000 principal amount or any integral multiple thereof. Interest on the Series 2017A Bonds is payable semiannually on June 1 and December 1 of each year, commencing December 1, 2017. Principal is payable on June 1 of the years set forth on the inside front cover. The principal or redemption price of, and interest on, the Series 2017A Bonds are payable by the Trustee to DTC, which is obligated in turn to remit such principal or redemption price and interest to the DTC participants for subsequent disbursement to the beneficial owners of the Series 2017A Bonds. See APPENDIX E – "DTC AND THE BOOK-ENTRY ONLY SYSTEM."

The Series 2017A Bonds are subject to redemption prior to maturity as more fully described herein. See "THE SERIES 2017A BONDS – Redemption."

The Series 2017A Bond proceeds will be used to (i) provide moneys to finance costs (or reimburse the District for costs) of improvements to the Wastewater System of the District, (ii) refund all or a portion of various series of the District's outstanding Wastewater System Revenue Bonds, and (iii) pay costs of issuance in connection with the Series 2017A Bonds, as described herein. See "PLAN OF FINANCE."

The Series 2017A Bonds are special obligations of the District, payable solely from and secured by a pledge of Subordinated Wastewater Revenues as more fully described herein. Subordinated Wastewater Revenues generally consist of the District's Wastewater Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) remaining after the payment of all Wastewater Operation and Maintenance Costs. The Series 2017A Bonds have been issued on parity with the District's Wastewater System Revenue Bonds and Parity Debt heretofore or hereafter issued, as more fully described herein. There are no Senior Wastewater Bonds remaining outstanding and the District has covenanted that it will not issue any Senior Wastewater Bonds in the future. The District also operates a Water System. The Series 2017A Bonds are not payable from or secured by the revenues of the Water System of the District. Neither the full faith and credit nor the taxing power of the District is pledged to the payment of the Series 2017A Bonds or the interest thereon.

MATURITY SCHEDULE (SEE INSIDE COVER)

The Series 201/A Bonds will be sold by competitive sale on or about June, 201/ pursuant to the Official Notice of Sale dated
, 2017. See APPENDIX G - "OFFICIAL NOTICE OF SALE" attached hereto. The Series 2017A Bonds will be offered
when, as and if sold and received by the Initial Purchaser, subject to the approval of validity by Norton Rose Fulbright US LLP, Los
Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel, and certain other conditions. Certain legal
matters will be passed upon for the District by its General Counsel. Orrick, Herrington & Sutcliffe LLP, San Francisco, California, is
serving as Special Tax Counsel to the Initial Purchaser. Montague DeRose and Associates, LLC and Backstrom McCarley Berry & Co.,
LLC are serving as co-municipal advisors to the District in connection with the Series 2017A Bonds. It is anticipated that the Series
2017A Bonds will be available for delivery through the facilities of DTC in New York, New York by Fast Automated Securities Transfer
(FAST) on or about June, 2017.

Dated: _____, 2017

Preliminary, subject to change.

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California) WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

MATURITY SCHEDULE*

\$* Serial Series 2017A Bonds							
Maturity Date (June 1)*	Principal Amount*	Interest Rate	Price or Yield	CUSIP [†]			
S% T	erm Series 2017A Bo	onds due June 1, 20_	, Yield	%; CUSIP [†] :			

^{*} Preliminary, subject to change.

CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services, managed by S&P Capital IQ on behalf of the American Bankers Association. CUSIP numbers have been assigned by an independent company not affiliated with the District or the Initial Purchaser and are included solely for the convenience of the holders of the Series 2017A Bonds. Neither the District nor the Initial Purchaser is responsible for the selection or use of these CUSIP numbers and no representation is made as to their correctness on the Series 2017A Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2017A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2017A Bonds.

EAST BAY MUNICIPAL UTILITY DISTRICT

Alameda and Contra Costa Counties, California 375 Eleventh Street Oakland, California 94607 (866) 403-2683

Board of Directors

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

Management

Alexander R. Coate, General Manager
Craig S. Spencer, General Counsel
Sophia D. Skoda, Director of Finance
Xavier J. Irias, Director of Engineering and Construction
Richard G. Sykes, Director of Water and Natural Resources
Michael J. Wallis, Director of Operations and Maintenance
Eileen M. White, Director of Wastewater
Rischa S. Cole, Secretary of the District
D. Scott Klein, Controller
Dari Barzel, Treasury Manager
Travis George, Debt Administrator

Co-Bond Counsel

Norton Rose Fulbright US LLP Los Angeles, California

Curls Bartling P.C. Oakland, California

Co-Municipal Advisors

Montague DeRose and Associates, LLC Walnut Creek, California

Backstrom McCarley Berry & Co., LLC San Francisco, California

Trustee

The Bank of New York Mellon Trust Company, N.A. San Francisco, California

Verification Agent

[To come]

No dealer, broker, salesperson or other person has been authorized by the District to give any information or to make any representation other than as set forth herein and, if given or made, such other information or representation must not be relied upon as having been authorized by the District. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2017A Bonds by a person in any jurisdiction in which it is unlawful for such person to make such an offer, solicitation or sale. This Official Statement is not to be construed as a contract with the purchasers of the Series 2017A Bonds. Statements contained in this Official Statement which involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as representations of facts.

The information set forth in this Official Statement has been obtained from official sources and other sources which are believed to be reliable, but it is not guaranteed as to accuracy or completeness. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall under any circumstances create any implication that there has been no change in the affairs of the District since the date hereof.

This Official Statement, including any supplement or amendment hereto, is intended to be deposited with the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access (EMMA) website. The District also maintains a website. However, the information presented therein is not part of this Official Statement and must not be relied upon in making an investment decision with respect to the Series 2017A Bonds.

IN CONNECTION WITH THIS OFFERING, THE INITIAL PURCHASER MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2017A BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

CERTAIN STATEMENTS CONTAINED IN THIS OFFICIAL STATEMENT REFLECT NOT HISTORICAL FACTS BUT FORECASTS AND "FORWARD-LOOKING STATEMENTS." NO ASSURANCE CAN BE GIVEN THAT THE FUTURE RESULTS DISCUSSED HEREIN WILL BE ACHIEVED, AND ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THE FORECASTS DESCRIBED HEREIN. IN THIS RESPECT, THE WORDS "ESTIMATE", "PROJECT", "ANTICIPATE", "EXPECT", "INTEND", "BELIEVE" AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. ALL PROJECTIONS, FORECASTS, ASSUMPTIONS, EXPRESSIONS OF OPINIONS, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS ARE EXPRESSLY QUALIFIED IN THEIR ENTIRETY BY THE CAUTIONARY STATEMENTS SET FORTH IN THIS OFFICIAL STATEMENT.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for purposes of, and as that term is defined in, Securities and Exchange Commission Rule 15c2-12.

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OFFICIAL STATEMENT

EAST BAY MUNICIPAL UTILITY DISTRICT (Alameda and Contra Costa Counties, California) WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

INTRODUCTION

This Introduction is not a summary of this Official Statement, and is qualified by more complete and detailed information contained in the entire Official Statement. A full review should be made of the entire Official Statement, including the cover page and attached appendices. The offering of Series 2017A Bonds to potential investors is made only by means of the entire Official Statement. Certain definitions of capitalized terms used and not defined herein are set forth in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

Purpose

The purpose of this Official Statement, which includes the cover page and appendices hereto, is to set forth certain information concerning the East Bay Municipal Utility District (the "District"), the wastewater interception, treatment and disposal system owned by the District (the "Wastewater System" or the "System"), and System finances, in connection with the sale of the District's \$_____* Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds"). The Series 2017A Bonds are being issued pursuant to the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by the Nineteenth Supplemental Indenture, dated as of June 1, 2017, by and between the District and the Trustee, relating to the Series 2017A Bonds (as so amended and supplemented, the "Indenture").

The Series 2017A Bonds are being issued for the purpose of (i) providing moneys to finance (or reimburse the District for) costs of improvements to the Wastewater System of the District, (ii) refunding all or a portion of various series of the District's outstanding Wastewater System Revenue Bonds, and (iii) paying costs incidental to the issuance of the Series 2017A Bonds. See "PLAN OF FINANCE" and APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WATER SYSTEM) – THE WATER SYSTEM – Capital Improvement Program."

The District

The District is a municipal utility district, created in 1923 by vote of the electorate in portions of Alameda and Contra Costa Counties in the State of California (the "State"). The District is formed under the authority of the Municipal Utility District Act, constituting Division 6 of the Public Utilities Code of the State, commencing with Section 11501 (the "Municipal Utility District Act"). Pursuant to the Municipal Utility District Act, the District is empowered to own and operate the Wastewater System. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM)." The District also operates a water system (the "Water System").

The Series 2017A Bonds are not payable from or secured by the revenues of the Water System of the District.

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^{*} Preliminary, subject to change.

Security for the Series 2017A Bonds

The Series 2017A Bonds are special obligations of the District, payable solely from and secured by a pledge of the Subordinated Wastewater Revenues of the District, as defined in the Indenture. Subordinated Wastewater Revenues generally consist of the District's Wastewater Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) remaining after the payment of (a) all Wastewater Operation and Maintenance Costs and (b) all amounts required to be paid under the District's Senior Wastewater Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Senior Wastewater Bonds. There are no Senior Wastewater Bonds currently outstanding and the District has covenanted pursuant to the Twelfth Supplemental Indenture, dated as of September 15, 2010 (the "Twelfth Supplemental Indenture") that it will not issue any Senior Wastewater Bonds in the future. Prior to the date of execution and delivery of the Twelfth Supplemental Indenture, all Wastewater System revenue bonds of the District issued under the Indenture were designated "Wastewater System Subordinated Revenue Bonds." Pursuant to the Twelfth Supplemental Indenture, any Wastewater System revenue bonds of the District issued (or remarketed or otherwise reoffered) under the Indenture following the execution and delivery of the Twelfth Supplemental Indenture are designated "Wastewater System Revenue Bonds" in order to reflect that the lien of the Senior Wastewater Bonds has been closed. All Outstanding Wastewater System revenue bonds issued under the Indenture (howsoever designated), together with any additional Wastewater System revenue bonds hereafter issued under the Indenture are secured on parity by Subordinated Wastewater Revenues and are collectively referred to herein as the "Wastewater System Revenue Bonds." See "SECURITY FOR THE SERIES 2017A BONDS – Pledge of Subordinated Wastewater Revenues."

The Series 2017A Bonds are secured on parity with the District's other Wastewater System Revenue Bonds to be Outstanding upon the delivery thereof, together with any additional Wastewater System Revenue Bonds hereafter issued and with any other Parity Debt (which may include payment obligations under interest rate swap agreements) heretofore or hereafter incurred in accordance with the Indenture. See "SECURITY FOR THE SERIES 2017A BONDS – Outstanding Wastewater System Revenue Obligations," and "– Issuance of Additional Wastewater System Revenue Bonds and Parity Debt; Junior and Subordinate Obligations." As of May 1, 2017, the District had Outstanding \$388,530,000 aggregate principal amount of Wastewater System Revenue Bonds. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) – WASTEWATER SYSTEM FINANCES – Outstanding Debt." See also "PLAN OF FINANCE – Refunding of the Refunded Bonds."

The Thirteenth Supplemental Indenture dated as of October 1, 2010 (the "Thirteenth Supplemental Indenture") includes a number of amendments to the Indenture, which amendments are to be effective upon the first date upon which all of the Outstanding Wastewater System Revenue Bonds issued prior to the date of the Thirteenth Supplemental Indenture have been paid and discharged in accordance with their terms. Such amendments contained in the Thirteenth Supplemental Indenture will become effective upon the delivery of the 2017A Bonds and the defeasance of the Refunded 2007B Bonds (see "PLAN OF FINANCE – Refunding of the Refunded Bonds"). The terms of the Indenture as described herein and in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE" reflect the effectiveness of such amendments and describe terms of the Indenture as otherwise amended and as amended by the Thirteenth Supplemental Indenture.

NEITHER THE FULL FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT IS PLEDGED TO THE PAYMENT OF THE SERIES 2017A BONDS OR THE INTEREST THEREON.

Rate Covenant

The District covenants under the Indenture that it will at all times, while any of the Wastewater System Revenue Bonds (including the Series 2017A Bonds) remain Outstanding, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Wastewater System so as to yield Wastewater Revenues in each Fiscal Year sufficient so that the Subordinated Wastewater Revenues for such year shall be at least equal to 1.1 times the amount of Debt Service on all Wastewater System Revenue Bonds and Parity Debt for such Fiscal Year. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Covenants." See also "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS."

Continuing Disclosure

Pursuant to a Continuing Disclosure Agreement, dated the date of delivery of the Series 2017A Bonds, by and between the District and the Trustee, as dissemination agent, the District will covenant and agree for the benefit of the holders and beneficial owners of the Series 2017A Bonds to provide certain financial information and operating data relating to the District and the Wastewater System by not later than 180 days following the end of the District's Fiscal Year (which currently begins on July 1 and ends on June 30 of each year) (the "Annual Report"), commencing with the Annual Report for Fiscal Year 2016-17, and to provide notices of the occurrence of certain specified events. See "CONTINUING DISCLOSURE." These covenants have been made in order to assist the Initial Purchaser in complying with Securities and Exchange Commission Rule 15c2-12(b)(5). See also APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

As of the date hereof, the District is in compliance in all material respects with its continuing disclosure undertakings for the last five years. Filings through EMMA are linked to a particular issue of obligations by CUSIP number (which is subject to change after the issuance of obligations as a result of various subsequent actions). The District uses its best efforts to confirm that each report filed through EMMA is linked to all the correct 9-digit CUSIP numbers. However, as a technical matter, it has come to the District's attention that certain filings during the past five years (primarily certain Annual Reports), when made, were not appropriately linked to all applicable CUSIP numbers. The District has since linked the applicable filings to the additional CUSIPs.

Professionals Involved in the Issue

The Bank of New York Mellon Trust Company, N.A. serves as Trustee under the Indenture. Certain legal matters incident to the authorization, issuance and sale of the Series 2017A Bonds are subject to the approval of Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel. Certain legal matters will be passed upon for the District by its General Counsel. Orrick, Herrington & Sutcliffe LLP, San Francisco, California, is serving as Special Tax Counsel to the Initial Purchaser in connection with the Series 2017A Bonds. Montague DeRose and Associates, LLC, Walnut Creek, California, and Backstrom McCarley Berry & Co., LLC, San Francisco, California, are serving as co-municipal advisors to the District in connection with the issuance of the Series 2017A Bonds.

Summaries Not Definitive

The summaries and references to all documents, statutes, reports and other instruments referred to herein do not purport to be complete, comprehensive or definitive, and each such summary or reference is qualified in its entirety by reference to each such document, statute, report or instrument. The capitalization of any word not conventionally capitalized or otherwise defined herein, indicates that such

word is defined in the Indenture and, as used herein, has the meaning given to it in the Indenture. Unless otherwise indicated, all financial and statistical information herein has been provided by the District.

All references to and summaries of the Indenture, the Escrow Agreements and all documents, statutes, reports and other instruments referred to herein are qualified in their entirety by reference to the full Indenture, the Escrow Agreements and each such document, statute, report or instrument, respectively, copies of which are available for inspection at the offices of the District in Oakland, California, and will be available from the Trustee upon request and payment of duplication costs. Forward looking statements in this Official Statement are subject to risks and uncertainties. Actual results may vary from forecasts or projections contained herein if events and circumstances do not occur as projected, and such variances may be material.

Additional Information

The District regularly prepares a variety of publicly available reports, including audits, budgets and related documents. Any Series 2017A Bondholder may obtain a copy of any such report, as available, from the Trustee or the District. Additional information regarding this Official Statement may be obtained by contacting the Trustee or Sophia D. Skoda, Director of Finance, East Bay Municipal Utility District, 375 Eleventh Street, Oakland, California 94607, (510) 287-0231.

THE DISTRICT

The District is a municipal utility district, created in 1923 by vote of the electorate in portions of Alameda and Contra Costa Counties in the State of California. The District is formed under the authority of the Municipal Utility District Act. Under the Municipal Utility District Act, municipal utility districts are empowered to acquire, construct, own, operate or control works for supplying the district and public agencies in the district with light, water, power, heat, transportation, telephone service or other means of communications, means for the collection, treatment or disposition of garbage, sewage or refuse matter, and public recreation facilities appurtenant to its reservoirs and may do all things necessary and convenient to the full exercise of powers granted in the Municipal Utility District Act. The District presently exercises only those functions relating to water supply, power generation and recreational facilities through its Water System, and, within an area known as Special District No. 1, sewerage and wastewater interception, treatment and disposal, and power generation through its Wastewater System. Special District No. 1 covers only a portion of the service area of the District. The District presently does not intend to exercise other functions. Such other functions and the related facilities, if exercised, would not constitute part of the Water System or the Wastewater System.

For information on the District, the Wastewater System and its finances and operations, see APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM)" and APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

PLAN OF FINANCE

Purpose of the Series 2017A Bonds

The Series 2017A Bond proceeds will be used to (i) provide moneys to finance a portion of the costs (or to reimburse the District for such costs) of various improvements to the Wastewater System, (ii) refund (a) all of the District's Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B (the "Refunded 2007B Bonds") maturing on and after June 1, 2018, and (b) a portion of the District's Wastewater System Subordinated Revenue/Refunding Bonds, Series 2010A (the "Refunded

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Series 2010A Bonds," and together with the Refunded Series 2007B Bonds, the "Refunded Bonds"), and (iii) pay the costs of issuance in connection with the Series 2017A Bonds.

Financing of Capital Improvements

The improvements to be financed with proceeds of the Series 2017A Bonds have been and are being undertaken as a part of the District's capital improvement program. For additional information regarding the District's current capital improvement program, and a description of the major programs and projects included therein, see APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) – Capital Improvement Program."

Refunding of the Refunded Bonds

The District's Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B (the "Series 2007B Bonds") were issued on June 6, 2007 in the aggregate principal amount of \$46,670,000 to refund certain Bonds previously issued by the District. As of May 1, 2017, \$26,920,000 aggregate principal amount of the Series 2007B Bonds remained outstanding. A portion of the proceeds of the Series 2017A Bonds will be used to redeem on ________, 2017, the \$23,915,000 outstanding aggregate principal amount of the Series 2007B Bonds maturing on and after June 1, 2018. The \$3,005,000 principal amount of Series 2007B Bonds maturing on June 1, 2017 will be paid on such maturity date from funds held by the District for such purpose.

The District's Wastewater System Revenue/Refunding Bonds, Series 2010A (the "Series 2010A Bonds") were issued on October 20, 2010 in the aggregate principal amount of \$58,095,000 to refund certain Bonds previously issued by the District and to prepay certain then outstanding State loans of the District. As of May 1, 2017, \$44,295,000 aggregate principal amount of the Series 2010A Bonds remained outstanding. A portion of the proceeds of the Series 2017A Bonds will be used to refund \$______ principal amount of the outstanding Series 2010A Bonds maturing on and after June 1, 2021. \$2,390,000 principal amount of the Series 2010A Bonds mature on June 1, 2017, and will be paid on such maturity date from funds held by the District for such purpose. Following such payment and upon the issuance of the Series 2017A Bonds and the defeasance of the Series 2010A Bonds to be refunded thereby, \$_____ aggregate principal amount of the Series 2010A Bonds will remain outstanding.

The following table details the Series, maturity dates and principal amounts of the Wastewater System Revenue Bonds to be refunded with the proceeds of the Series 2017A Bonds.

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Refunded Bonds*

Series and Maturity of Bonds	Issue Date	CUSIP (Base No.: 271012)	Outstanding Principal Amount	Interest Rate	Principal Amount to be Refunded	Redemption Date	Redemption Price
Wastewater System Subordinated Revenue Refunding Bonds, Series 2007B	06/06/07						
June 1, 2018 June 1, 2019 June 1, 2020 June 1, 2021 June 1, 2022 June 1, 2023 June 1, 2024 June 1, 2026 ⁽¹⁾ Total		BK1 BL9 BM7 BN5 BP0 BQ8 BR6 BS4	\$ 3,130,000 3,260,000 2,235,000 2,320,000 2,350,000 2,465,000 2,585,000 5,570,000 \$23,915,000	5.00% 5.00 5.00 5.00 5.00 5.00 5.00 5.00		, 2017 , 2017 , 2017 2017 , 2017 , 2017	100% 100 100 100 100 100 100
Wastewater System Revenue/Refunding Bonds, Series 2010A	10/20/10						
June 1, 2021 June 1, 2022 June 1, 2023 June 1, 2023 June 1, 2024 June 1, 2025 June 1, 2026 June 1, 2027 June 1, 2028 June 1, 2029 Total		DA1 DB9 DK9 DC7 DD5 DE3 DF0 DG8 DH6 DJ2	\$ 2,750,000 2,885,000 3,000,000 50,000 3,175,000 3,325,000 3,510,000 5,085,000 9,900,000 420,000 \$34,100,000	5.00% 5.00 4.00 3.00 5.00 5.00 5.00 5.00 5.00 4.00		June 1, 2020 June 1, 2020	100% 100 100 100 100 100 100 100 100

⁽¹⁾ Term Bonds.

The refunding of the Refunded Bonds will be effected by depositing a portion of the proceeds of the Series 2017A Bonds, together with certain other available moneys, into an escrow fund for the related Series of Refunded Bonds (the "2007B Escrow Fund" and the "2010A Escrow Fund," respectively, and collectively, the "Escrow Funds") created and established under the terms of the escrow agreement for the related Series of Refunded Bonds, each dated as of June 1, 2017 (the "2007B Escrow Agreement" and the "2010A Escrow Agreement," and collectively, the "Escrow Agreements"), each by and between the District and The Bank of New York Mellon Trust Company, N.A., as escrow agent (the "Escrow Agent"). The proceeds and other available moneys deposited into the 2007B Escrow Fund will be held by the Escrow Agent in cash and will be in an amount sufficient to pay the redemption price (*i.e.*, 100% of the principal amount) of the Refunded 2007B Bonds to be redeemed on ________, 2017*, plus accrued interest thereon to such redemption date. The proceeds and other available moneys deposited into the 2010A Escrow Fund will be held by the Escrow Agent in cash or will be invested in direct noncallable obligations of, or unconditionally guaranteed by, the United States of America ("Federal Securities"), which Federal Securities, if any, will bear interest at such rates and will be scheduled to mature at such

^{*} Preliminary, subject to change.

times and in such amounts so that, when paid in accordance with their terms, such amounts, together with any amounts held as cash in the 2010A Escrow Fund, will be sufficient to pay (a) interest on the Refunded 2010A Bonds as the same shall become due on and before June 1, 2020, the redemption date for such Refunded 2010A Bonds and (b) the redemption price (*i.e.*, 100% of the principal amount) of the Refunded 2010A Bonds to be redeemed on such redemption date.

_______, independent certified public accountants, will verify, from the information provided to them, the mathematical accuracy as of the date of delivery of the Series 2017A Bonds of computations relating to (i) the adequacy of the amounts deposited to the 2007B Escrow Fund under the 2007B Escrow Agreement to pay the redemption price of the Refunded 2007B Bonds to be redeemed on such redemption date, plus accrued interest thereon, and (ii) the adequacy of the maturing principal amounts of the Federal Securities to be deposited to the 2010A Escrow Fund under the 2010A Escrow Agreement and interest to be earned thereon, together with amounts held as cash in the 2010A Escrow Fund, to pay interest on the Refunded 2010A Bonds as the same shall become due on and before the applicable redemption date for such Refunded 2010A Bonds and the redemption price of the Refunded 2010A Bonds to be redeemed on such redemption date. See "VERIFICATION OF MATHEMATICAL COMPUTATIONS."

Upon the foregoing deposits and investment and compliance with or provision for compliance with certain notice requirements set forth in the Indenture, the liability of the District with respect to the Refunded Bonds will cease and the Refunded Bonds will no longer be Outstanding under the Indenture except that the Owners of the Refunded Bonds will be entitled to payment thereof solely from the amounts on deposit in the respective Escrow Fund held by the Escrow Agent therefor.

ESTIMATED SOURCES AND USES OF FUNDS

The estimated sources and uses of funds with respect to the Series 2017A Bonds are as follows:

Sources	
Principal Amount	\$
[Net] Original Issue Premium	
Total	\$
Uses	
Series 2017A Wastewater System Fund ⁽¹⁾	\$
2007B Escrow Fund	
2010A Escrow Fund	
Initial Purchaser' Discount	
Costs of Issuance ⁽²⁾	
Total	\$

⁽¹⁾ Includes amounts to be reimbursed to the District for prior expenditures.

THE SERIES 2017A BONDS

General Description

The Series 2017A Bonds will be issued in the aggregate principal amount, will bear interest at the respective rates and will mature in the respective years and amounts, all as set forth on the inside cover page of this Official Statement. The Series 2017A Bonds will be issued in denominations of \$5,000

⁽²⁾ Includes legal, financing and consulting fees, rating agency fees, printing costs and other miscellaneous expenses.

principal amount or any integral multiple thereof. The Series 2017A Bonds will be dated, and shall bear interest from, their date of delivery. Interest on the Series 2017A Bonds is payable on each June 1 and December 1, commencing on December 1, 2017, and will be computed on the basis of a 360-day year of twelve 30-day months. The Series 2017A Bonds will be issued as fully registered bonds in book-entry form only and when delivered will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Series 2017A Bonds. So long as DTC, or its nominee, Cede & Co., is the registered owner of the Series 2017A Bonds, all payments of principal or redemption price of, and interest on, the Series 2017A Bonds will be made directly to DTC, which is obligated in turn to remit such principal or redemption price and interest to its DTC participants for subsequent disbursement to the beneficial owners of the Series 2017A Bonds. See APPENDIX E – "DTC AND THE BOOK-ENTRY ONLY SYSTEM."

Redemption

Optional Redemption. The Series 2017A Bonds maturing on or before June 1, 20__ are not subject to optional redemption prior to maturity. The Series 2017A Bonds maturing on and after June 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the District, from any source of available funds, as a whole or in part on any date (by such maturities as may be specified by the District and by lot within a maturity), on or after June 1, 20___, at a redemption price equal to the principal amount of Series 2017A Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

Mandatory Redemption. The Series 2017A Bonds maturing on June 1, 20__ are subject to redemption prior to their stated maturity, in part, by lot, from Mandatory Sinking Account Payments as specified below at the principal amount of each Series 2017A Bond so redeemed plus accrued interest thereon to but not including the date fixed for redemption, without premium.

Term Series 2017A Bonds due June 1, 20___

Mandatory Sinking Account Payment Dates (June 1) Mandatory Sinking Account Payments

† Final Maturity.

Upon an optional redemption of a portion of any term Series 2017A Bond, the District shall provide the Trustee with a revised schedule of the foregoing Mandatory Sinking Account Payments which shall provide for a reduction in the amount of one or more of the Mandatory Sinking Account Payments coming due on such term Series 2017A Bond after such redemption as specified by the District in such schedule to reflect such redeemed portion.

Notice of Redemption. Notice of redemption of the Series 2017A Bonds shall be given by the Trustee, not less than 20 nor more than 60 days prior to the redemption date, to DTC or, if the book-entry system as described in Appendix E has been discontinued, by first-class mail, to the respective Owners of any Series 2017A Bonds designated for redemption in the form and otherwise in accordance with the terms of the Indenture. Failure by any Owner to receive notice or any defect in any such notice shall not affect the sufficiency of the proceedings for redemption.

In the event of an optional redemption of Series 2017A Bonds, if the District shall not have deposited or otherwise made available to the Trustee the money required for the payment of the redemption price of the Series 2017A Bonds to be redeemed at the time of the mailing of notice of redemption, such notice of redemption shall state that the redemption is expressly conditioned upon the timely deposit of sufficient funds therefor with the Trustee.

Selection of Bonds for Redemption. Whenever provision is made in the Indenture for the redemption of less than all of the Series 2017A Bonds, the maturities of such Series 2017A Bonds to be redeemed shall be specified by the District. In the case of partial redemption of less than all of the Series 2017A Bonds of any maturity, the Trustee will select the Series 2017A Bonds of such maturity to be redeemed from all Series 2017A Bonds of the respective maturity not previously called for redemption, in authorized denominations, by lot, in any manner which the Trustee in its sole discretion deems appropriate and fair.

Effect of Redemption. If notice of redemption is given as provided in the Indenture, and moneys for payment of the Redemption Price of, together with interest accrued to the redemption date on, the Series 2017A Bonds (or portions thereof) so called for redemption is held by the Trustee, then on the redemption date designated in such notice, the Series 2017A Bonds (or portions thereof) so called for redemption will become due and payable at the Redemption Price specified in the notice of redemption, together with interest accrued thereon to the date fixed for redemption, interest on such Series 2017A Bonds so called for redemption will cease to accrue, the Series 2017A Bonds (or portions thereof) will cease to be entitled to any benefit or security under the Indenture and the owners of the Series 2017A Bonds (or portions thereof) will have no rights in respect thereof except to receive payment of the Redemption Price plus accrued interest.

SECURITY FOR THE SERIES 2017A BONDS

General

Authority for Issuance. The Series 2017A Bonds are authorized for issuance pursuant to the Municipal Utility District Act and laws of the State amendatory thereof or supplemental thereto, including the Revenue Bond Law of 1941, as made applicable by Article 6a of Chapter 6 of Division 6 of the Municipal Utility District Act, and with respect to any portion of the Series 2017A Bonds issued to refund outstanding Bonds of the District, Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State (collectively, the "Act"), resolutions adopted by the District and the Indenture.

Amendments to the Indenture. The Thirteenth Supplemental Indenture includes a number of amendments to the Indenture which amendments are to be effective upon the first date upon which all of the Outstanding Wastewater System Revenue Bonds issued prior to the date of the Thirteenth Supplemental Indenture have been paid and discharged in accordance with their terms. Such amendments contained in the Thirteenth Supplemental Indenture will become effective upon the delivery of the 2017A Bonds and the defeasance of the Refunded 2007B Bonds (see "PLAN OF FINANCE – Refunding of the Refunded Bonds"). The terms of the Indenture as described herein and

in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE" reflect the effectiveness of such amendments and describe terms of the Indenture as otherwise amended and as amended by the Thirteenth Supplemental Indenture.

Pledge of Subordinated Wastewater Revenues

Pursuant to the Indenture, the District has irrevocably pledged to the payment of the principal or redemption price of and interest on the Wastewater System Revenue Bonds, including the Series 2017A Bonds and any Parity Debt, all Subordinated Wastewater Revenues (as hereinafter defined) and all amounts held by the Trustee under the Indenture (except for amounts held in the Rebate Fund) subject only to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein.

"Subordinated Wastewater Revenues" is generally defined in the Indenture to mean, for any fiscal period, the sum of (a) 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, together with income from the investment of any moneys in any fund or account established under the Senior Wastewater Bond Resolution relating to the District's Senior Wastewater Bonds or the Indenture; provided, however, there shall be excluded therefrom any amounts reimbursed to the District by the United States of America pursuant to Section 54AA of the Code or any future similar program (collectively, "Wastewater Revenues") for such fiscal period, plus (b) the amounts, if any, withdrawn by the District from the Rate Stabilization Fund established under the Senior Wastewater Bond Resolution for treatment as Wastewater Revenues for such fiscal period, less the sum of (c) all Wastewater Operation and Maintenance Costs (as hereinafter defined) for such fiscal period, (d) the amounts, if any, withdrawn by the District from Wastewater Revenues for such fiscal period for deposit in the Rate Stabilization Fund, and (e) all amounts required to be paid under the Senior Wastewater Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Senior Wastewater Bonds as the same become due and payable. There are no Senior Wastewater Bonds currently outstanding and the District has covenanted pursuant to the Twelfth Supplemental Indenture that it will not issue any Senior Wastewater Bonds in the future. See "Outstanding Wastewater System Revenue Obligations - No Senior Wastewater Bonds" below.

The District may deposit into, or withdraw amounts from time to time held in, the Rate Stabilization Fund within 120 days after the end of the applicable Fiscal Year. Amounts deposited into the Rate Stabilization Fund shall be deducted from Wastewater Revenues for such Fiscal Year. Amounts withdrawn from the Rate Stabilization Fund shall be included in Wastewater Revenues for such Fiscal Year and may be applied for any purposes for which Wastewater Revenues generally are available. All interest and earnings upon deposits in the Rate Stabilization Fund will not be held therein, but will be treated and accounted for as Wastewater Revenues. The amount on deposit in the Rate Stabilization Fund as of May 1, 2017 was \$24,090,000.

"Wastewater Operation and Maintenance Costs" is generally defined in the Indenture to mean the reasonable and necessary costs of maintaining and operating the Wastewater System, calculated on sound accounting principles, including (among other things) the reasonable expenses of management, repair and other expenses necessary to maintain and preserve the Wastewater System in good repair and working order, and reasonable amounts for administration, overhead, insurance, taxes and other similar costs, but excluding in all cases depreciation and obsolescence charges or reserves therefor and amortization of intangibles or other bookkeeping entries of a similar nature, and excluding all costs paid from the proceeds of taxes received by the District.

"Parity Debt" means any indebtedness, installment sale obligation, lease obligation or other obligation of the District for borrowed money or interest rate swap agreement having an equal lien and charge upon the Subordinated Wastewater Revenues and therefore payable on a parity with the Wastewater System Revenue Bonds (whether or not any Wastewater System Revenue Bonds are Outstanding).

The Series 2017A Bonds are not payable from or secured by the revenues of the Water System of the District.

The Series 2017A Bonds are special obligations of the District, payable solely from and secured by a pledge of Subordinated Wastewater Revenues. Neither the full faith and credit nor the taxing power of the District is pledged to the payment of the Series 2017A Bonds or the interest thereon.

Allocation of Subordinated Wastewater Revenues Under the Indenture

In accordance with the Indenture, all Subordinated Wastewater Revenues, when and as received by the District, shall be deposited into a fund to be established and maintained by the District designated as the "Revenue Fund." So long as any Wastewater System Revenue Bonds are Outstanding, the District will transfer the moneys in the Revenue Fund into the following respective funds (established, maintained and held by the Trustee in trust for the benefit of the Owners of the Wastewater System Revenue Bonds) in the following order of priority; provided, that on a parity with such deposits the Trustee may set aside or transfer amounts with respect to outstanding Parity Debt as provided in the proceedings for such Parity Debt (which deposits shall be proportionate in the event such amounts are insufficient to provide for all deposits required as of any date to be made with respect to the Wastewater System Revenue Bonds and such Parity Debt):

Interest Fund. The District will transfer to the Trustee to be set aside in the Interest Fund on or before the Business Day prior to each interest payment date an amount equal to the interest becoming due and payable on the Outstanding Wastewater System Revenue Bonds (excluding any interest for which there are moneys on deposit in the Interest Fund from the proceeds of any Series of Wastewater System Revenue Bonds or other source to pay such interest).

Principal Fund; Sinking Accounts. The District shall transfer to the Trustee to be set aside in the Principal Fund on or before the Business Day prior to each principal or sinking account payment date an amount equal to the amount of Bond Obligation (as defined in the Indenture) plus the Mandatory Sinking Account Payments becoming due and payable on such date. All Mandatory Sinking Account Payments shall be made without priority of any payment into any one such sinking account over any other such payment.

Bond Reserve Funds. Upon the occurrence of any deficiency in any bond reserve fund established pursuant to the Indenture for any Series of Wastewater System Revenue Bonds, the District shall transfer to the Trustee and the Trustee shall set aside in such bond reserve fund an amount equal to the aggregate amount of each unreplenished prior withdrawal from such bond reserve fund until there is on deposit in such bond reserve fund an amount equal to the respective reserve requirement for such bond reserve fund. There is no bond reserve fund being established in connection with the Series 2017A Bonds. See "– No Bond Reserve Fund for Series 2017A Bonds" below.

The requirements of each such fund (including the making up of any deficiencies in any such fund resulting from a lack of Subordinated Wastewater Revenues sufficient to make any earlier required deposit) at the time of deposit is to be satisfied before any deposit is made to any other fund subsequent in

priority. The Indenture provides that any Subordinated Wastewater Revenues remaining in the Revenue Fund after the foregoing transfers, except as otherwise provided in a Supplemental Indenture, shall be held free and clear of the Indenture by the District. The District may use and apply such Subordinated Wastewater Revenues for any lawful purpose of the District, including the redemption of Wastewater System Revenue Bonds upon the terms and conditions set forth in a Supplemental Indenture relating to such Wastewater System Revenue Bonds and the purchase of Wastewater System Revenue Bonds as and when and at such prices as it may determine.

Under the Indenture the District may enter into an interest rate swap agreement corresponding to the interest rate or rates payable on a Series of Wastewater System Revenue Bonds or any portion thereof and the amounts received by the District or the Trustee, if any, pursuant to such an interest rate swap agreement may be applied to the deposits required under the Indenture. If the District so designates, amounts payable under the interest rate swap agreement shall be secured by Subordinated Wastewater Revenues and other assets pledged under the Indenture to the Wastewater System Revenue Bonds on a parity basis therewith.

For further information regarding the allocation of Subordinated Wastewater Revenues with respect to the Wastewater System Revenue Bonds, see APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Allocation of Subordinated Wastewater Revenues."

No Bond Reserve Fund for Series 2017A Bonds

There is no bond reserve fund being established in connection with the Series 2017A Bonds and amounts on deposit in any bond reserve fund for any other Series of Wastewater System Revenue Bonds are not available for the payment of, and do not in any manner secure, the Series 2017A Bonds.

Rate Covenant

The District has covenanted under the Indenture that it will, at all times while any of the Wastewater System Revenue Bonds remain Outstanding, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Wastewater System so as to yield Wastewater Revenues in each Fiscal Year sufficient so that the Subordinated Wastewater Revenues for such year shall be at least equal to 1.1 times the amount of Debt Service on all Wastewater System Revenue Bonds and Parity Debt for such Fiscal Year. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Certain Definitions" for the definition of Debt Service under the Indenture.

Outstanding Wastewater System Revenue Obligations

No Senior Wastewater Bonds. Pursuant to Resolution No. 30051 adopted by the Board of Directors of the District on January 26, 1982 (as amended and supplemented, the "Senior Wastewater Bond Resolution"), the District authorized the issuance, from time to time, of bonds of the District designated as "East Bay Municipal Utility District Wastewater Treatment System Revenue Bonds" (the "Senior Wastewater Bonds") and secured by a pledge of, and first lien on, the Net Revenues (as defined in the Senior Wastewater Bond Resolution) of the District's Wastewater System, generally being all of the Wastewater Revenues (adjusted for deposits to and withdrawals from the Rate Stabilization Fund) after payment of Wastewater Operation and Maintenance Costs thereof, all on the terms and conditions set forth in the Senior Wastewater Bond Resolution. At the time of the initial execution and delivery of the Indenture in 1990, the Indenture did not preclude the District from issuing additional Senior Wastewater Bonds pursuant to the Senior Wastewater Bond Resolution. The District last issued Senior Wastewater Bonds in 1986 and all outstanding Senior Wastewater Bonds were retired in 1997. **There**

are currently no Senior Wastewater Bonds outstanding. Pursuant to the Twelfth Supplemental Indenture, the District has covenanted and agreed that it will not issue any Senior Wastewater Bonds in the future pursuant to the Senior Wastewater Bond Resolution.

Outstanding Wastewater System Revenue Bonds and Parity Debt. As of May 1, 2017, the District had Outstanding \$388,530,000 aggregate principal amount of Wastewater System Revenue Bonds (collectively, the "Outstanding Wastewater System Revenue Bonds") issued under and pursuant to the Indenture. All of the District's Outstanding Wastewater System Revenue Bonds are fixed rate bonds. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) – WASTEWATER SYSTEM FINANCES – Outstanding Debt."

The District's \$150,000,000 Outstanding Wastewater System Revenue Bonds, Series 2010B were issued as "Build America Bonds" that are "qualified bonds" under the provisions of the American Recovery and Reinvestment Act of 2009. For the purpose of calculating Debt Service, Annual Debt Service and Maximum Annual Debt Service under the Indenture (as amended by the Thirteenth Supplemental Indenture), to the extent interest on such Build America Bonds is reasonably anticipated to be reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program (such interest subsidy payments being referred to herein as "BABs Interest Subsidy Payments"), then in making such calculations, interest payments with respect to the Build America Bonds shall be reduced by the amount of such interest reasonably anticipated to be paid or reimbursed by the United States of America. Pursuant to Federal sequestration legislation passed by Congress in 2011 and 2013, Federal subsidy payments for direct-pay bonds, including Build America Bonds, have been reduced (by formula) from the original funding subsidy level of 35% of interest costs on direct-pay bonds, including Build America Bonds. The sequestration reduction rate of the Federal subsidy payment for Build America Bonds is 6.9% for the Federal government's fiscal year beginning October 1, 2016, and this means that BABs Interest Subsidy Payments sought by the District for its Build America Bonds will be reduced by this percentage. This reduction will increase the District's net interest cost. The percentage reduction is re-determined for each Federal fiscal year. At present, pursuant to Federal legislation, sequestration will continue through fiscal year 2023. The District can give no assurance regarding the level of subsidy payments or changes in the sequestration rate, if any, in the future, or whether Congress will adopt legislation in the future that will further reduce subsidy payments for direct-pay bonds, including Build America Bonds. Under the Indenture, the District is obligated to make all interest payments on the Wastewater System Revenue Bonds without regard to the receipt of any federal BABs Interest Subsidy Payments by the District.

The Outstanding Wastewater System Revenue Bonds, together with any additional Wastewater System Revenue Bonds issued under the Indenture (including the Series 2017A Bonds), and any Parity Debt (which may include payment obligations under interest rate swap agreements) heretofore or hereafter issued or incurred in accordance with the Indenture, are on a parity as to the pledge of and lien on Subordinated Wastewater Revenues.

Parity State Loans. The District participates from time-to-time in the Clean Water State Revolving Fund loan program administered by the State Water Resources Control Board (the "SWRCB"), which was established to provide below-market rate financing for qualified water quality infrastructure projects in the State. Under this program, the District has from time-to-time entered into loan contracts with the SWRCB (the "State Loans") payable from the Wastewater Revenues. The District currently has no outstanding State Loans payable from Wastewater Revenues. {update if any pending applications at time of mailing}

State Loans entered into SWRCB low interest rate loan program generally provide that such State Loans shall be either senior to or on a parity with all future debt of the recipient thereof. Any future State Loans received by the District would likely constitute Parity Debt under the Indenture.

Subordinate Commercial Paper. The District maintains two commercial paper note programs. Under the District's extendable municipal commercial paper program, commercial paper may be issued 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 May 1, 2017, the District had outstanding \$15,000,000 aggregate principal amount of tax-exempt Extendable Municipal Commercial Paper Notes (Wastewater Series) issued for the benefit of the Wastewater System under the District's extendable municipal commercial paper program. Under the District's traditional commercial paper program, commercial paper notes may be issued at prevailing interest rates for periods of not more than 270 days from the date of issuance. In connection with its traditional commercial paper program, the District has covenanted to procure and maintain in effect for any series or subseries of commercial paper notes issued thereunder one or more liquidity facilities enabling it to borrow an aggregate amount at least equal to the principal amount of such series or subseries of commercial paper notes.. As of May 1, 2017, the District had no Commercial Paper Notes (Wastewater Series) issued for the benefit of the Wastewater System under the District's traditional commercial paper program. Commercial paper notes issued for the benefit of the Wastewater System under either such program (and the District's repayment obligation for amounts borrowed, if any, under any applicable liquidity facility therefor), are payable from and secured by a pledge of Wastewater Revenues on a basis subordinate to the Wastewater System Revenue Bonds and Parity Debt. See APPENDIX A - "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) - WASTEWATER SYSTEM FINANCES - Outstanding Debt" for additional information regarding the District's authorized commercial paper note programs.

Issuance of Additional Wastewater System Revenue Bonds and Parity Debt; Junior and Subordinate Obligations

The Indenture provides conditions under which additional Series of Wastewater System Revenue Bonds or other Parity Debt payable from Subordinated Wastewater Revenues may be issued on a parity with the Outstanding Wastewater System Revenue Bonds. Among other conditions, the Indenture requires that the District shall have placed on file with the Trustee a certificate of the District certifying that the sum of: (1) the Subordinated Wastewater Revenues for any period of 12 consecutive months during the 18 months immediately preceding the date on which such additional Wastewater System Revenue Bonds or Parity Debt will become Outstanding; plus (2) 90% of the amount by which the District projects Subordinated Wastewater Revenues for such period of 12 months would have been increased had increases in rates, fees and charges during such period of 12 months been in effect throughout such period of 12 months; plus (3) 75% of the amount by which the District projects Subordinated Wastewater Revenues will increase during the period of 12 months commencing on the date of issuance of such additional Series of Wastewater System Revenue Bonds due to improvements to the Wastewater System under construction (financed from any source) or to be financed with the proceeds of such additional Series of Wastewater System Revenue Bonds, shall have been at least equal to 1.1 times the amount of Maximum Annual Debt Service on all Wastewater System Revenue Bonds and Parity Debt then Outstanding and the additional Wastewater System Revenue Bonds or Parity Debt then proposed to be issued. See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE -Certain Definitions" for the definition of Maximum Annual Debt Service and Debt Service under the Indenture.

Refunding Wastewater System Revenue Bonds may be authorized and issued by the District without compliance with the provisions described above, subject to the terms and conditions of the

Indenture, including the condition that Maximum Annual Debt Service on all Wastewater System Revenue Bonds and Parity Debt outstanding following the issuance of such refunding Wastewater System Revenue Bonds is less than or equal to Maximum Annual Debt Service on all Wastewater System Revenue Bonds and Parity Debt outstanding prior to the issuance of such refunding Wastewater System Revenue Bonds. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Refunding Bonds."

The District has in the past, and may from time-to-time in the future, enter into interest rate swap agreements corresponding to the interest rate or rates payable on a Series of Bonds or any portion thereof. Any such interest rate swap agreements may contain such security and payment provisions, including collateral posting obligations and early termination provisions, as determined by the District and subject to any conditions contained in the Indenture. Pursuant to the Indenture, if the District so designates, amounts payable under an interest rate swap agreement may be secured by Subordinated Wastewater Revenues and other assets pledged under the Indenture on a parity basis with the Wastewater System Revenue Bonds and other Parity Debt.

Pursuant to the Indenture, the District may incur obligations which are junior and subordinate to the payment of the principal, redemption price, interest and reserve fund requirements for the Wastewater System Revenue Bonds and all Parity Debt and which subordinated obligations are payable as to principal, redemption price, interest and reserve fund requirements, if any, only out of Subordinated Wastewater Revenues after the prior payment of all amounts then required to be paid under the Indenture from Subordinated Wastewater Revenues for principal, redemption price, interest and reserve fund requirements for the Wastewater System Revenue Bonds and all Parity Debt, as the same become due and payable and at the times and in the manner as required in the Indenture or the instrument authorizing such Parity Debt, as applicable.

Investment of Moneys in Funds and Accounts Under the Indenture

All moneys held in any of the funds and accounts held by the Trustee and established pursuant to the Indenture shall be invested, as directed by the District, solely in Investment Securities (see APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Certain Definitions" for the definition of Investment Securities under the Indenture). If and to the extent the Trustee does not receive investment instructions from the District with respect to the moneys in such funds and accounts, such moneys shall be invested in a cash sweep or similar account arrangement of or available to the Trustee described in clause (xi) of the definition of Investment Securities.

Unless otherwise provided in a Supplemental Indenture, all interest, profits and other income received from the investment of moneys in any fund or account other than the Rebate Fund shall be transferred to the Revenue Fund when received; provided, however, that an amount of interest received with respect to any Investment Security equal to the amount of accrued interest, if any, paid as part of the purchase price of such Investment Security shall be credited to the fund or account from which such accrued interest was paid.

Limitations on Remedies

The ability of the District to comply with its covenants under the Indenture and to generate Wastewater Revenues sufficient to pay the principal of and interest on the Series 2017A Bonds may be adversely affected by actions and events outside of the control of the District. Furthermore, any remedies available to the owners of the Series 2017A Bonds upon the occurrence of an event of default under the Indenture are in many respects dependent upon judicial actions which are often subject to discretion and delay and could prove both expensive and time consuming to obtain. In addition, enforceability of the

rights and remedies of the owners of the Series 2017A Bonds, and the obligations incurred by the District under the Series 2017A Bonds and the Indenture, may become subject to the following: the federal Bankruptcy Code and applicable bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or affecting the enforcement of creditor's rights generally, now or hereafter in effect; equity principles which may limit the specific enforcement under State law of certain remedies; the exercise by the United States of America of the powers delegated to it by the Constitution; and the reasonable and necessary exercise, in certain exceptional situations, of the police powers inherent in the sovereignty of the State and its governmental bodies in the interest of serving a significant and legitimate public purpose. Bankruptcy proceedings, or the exercise of powers by the federal or State government, if initiated, could subject the owners of the Series 2017A Bonds to judicial discretion and interpretation of their rights in bankruptcy or otherwise, and consequently may entail risks of delay, limitation, or modification of their rights.

CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS

Tax Limitations – Proposition 13

Article XIIIA of the State Constitution, known as Proposition 13, was approved by the voters in June 1978. Section 1(a) of Article XIIIA limits the maximum ad valorem tax on real property to 1% of "full cash value," and provides that such tax shall be collected by the counties and apportioned according to State statutes. Section 1(b) of Article XIIIA provides that the 1% limitation does not apply to *ad valorem* taxes levied to pay interest or redemption charges on (1) indebtedness approved by the voters prior to July 1, 1978, and (2) any bonded indebtedness for the acquisition or improvement of real property approved on or after July 1, 1978, by two-thirds of the votes cast by the voters voting on the proposition.

Section 2 of Article XIIIA defines "full cash value" to mean the county assessor's valuation of real property as shown on the 1975-76 Fiscal Year tax bill, or, thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership has occurred. The full cash value may be adjusted annually to reflect inflation at a rate not to exceed 2% per year, or to reflect a reduction in the consumer price index or comparable data for the taxing jurisdiction, or may be reduced in the event of declining property value caused by substantial damage, destruction or other factors. Legislation enacted by the State Legislature to implement Article XIIIA provides that, notwithstanding any other law, local agencies may not levy any ad valorem property tax except to pay debt service on indebtedness approved by the voters as described above. Such legislation further provides that each county will levy the maximum tax permitted by Article XIIIA, which is \$1.00 per \$100 of assessed market value. The legislation further establishes the method for allocating the taxes collected by each county among the taxing agencies in the county. Special districts, such as the District, receive an allocation that is based primarily upon their tax levies in certain years prior to the amendment's effective date relative to the tax levies of other congruent agencies. The District receives approximately 1.25% of the non-debt service property taxes collected within its jurisdiction from Alameda and Contra Costa counties. See also APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) – WASTEWATER SYSTEM FINANCES – Property Tax Revenues."

Since its adoption, Article XIIIA has been amended a number of times. These amendments have created a number of exceptions to the requirement that property be reassessed when purchased, newly constructed or a change in ownership has occurred. These exceptions include certain transfers of real property between family members, certain purchases of replacement dwellings for persons over age 55 and by property owners whose original property has been destroyed in a declared disaster, and certain improvements to accommodate disabled persons and for seismic upgrades to property. These amendments have resulted in marginal reductions in the property tax revenues of the District.

Increases of assessed valuation resulting from reappraisals of property due to new construction, change in ownership or from the 2% annual adjustment are allocated among the various jurisdictions in the "taxing area" based upon their respective "situs." Any such allocation made to a local agency continues as part of its allocation in future years.

The effect of Article XIIIA on the District's finances has been to restrict ad valorem tax revenues for general purposes to the statutory allocation of the 1% levy while leaving intact the power to levy ad valorem taxes in whatever rate or amount may be required to pay debt service on its outstanding general obligation bonds and unissued bonds authorized prior to July 1, 1978. Both the California State Supreme Court and the United States Supreme Court have upheld the validity of Article XIIIA.

For a description of the property tax collection procedure and certain statistical information concerning tax collections and delinquencies, see APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) – WASTEWATER SYSTEM FINANCES – Property Tax Revenues."

Spending Limitations

At the statewide special election of November 6, 1979, the voters approved an initiative entitled "Limitation of Government Appropriations" which added Article XIIIB to the California Constitution. Under Article XIIIB, State and local governmental entities have an annual "appropriations limit" which limits the ability to spend certain moneys which are called "appropriations subject to limitation" (consisting of tax revenues, state subventions and certain other funds) in an amount higher than the "appropriations." Article XIIIB does not affect the appropriation of moneys which are excluded from the definition of "appropriations subject to limitation." Among the exclusions is an "appropriation of any special district which existed on January 1, 1978, and which did not as of the 1977-78 Fiscal Year levy an ad valorem tax on property in excess of 12.5 cents per \$100 of assessed value." In the opinion of the District's General Counsel, the appropriations of the District are excluded from the limitations of Article XIIIB under this clause.

Proposition 62

A statutory initiative ("Proposition 62") was adopted by the voters voting in the State at the November 4, 1986 General Election which (1) requires that any tax for general governmental purposes imposed by local governmental entities be approved by resolution or ordinance adopted by two-thirds vote of the governmental agency's legislative body and by a majority of the electorate of the governmental entity, (2) requires that any special tax (defined as taxes levied for other than general governmental purposes) imposed by a local governmental entity be approved by a two-thirds vote of the voters within that jurisdiction, (3) restricts the use of revenues from a special tax to the purposes or for the service for which the special tax was imposed, (4) prohibits the imposition of ad valorem taxes on real property by local governmental entities except as permitted by Article XIIIA, (5) prohibits the imposition of transaction taxes and sales taxes on the sale of real property by local governmental entities and (6) requires that any tax imposed by a local governmental entity on or after March 1, 1985 be ratified by a majority vote of the electorate within two years of the adoption of the initiative or be terminated by November 15, 1988.

Proposition 218

On November 5, 1996, the voters of the State approved Proposition 218, the so-called "Right to Vote on Taxes Act." Proposition 218 added Articles XIIIC and XIIID to the State Constitution, which

contain a number of provisions affecting the ability of local governments to levy and collect both existing and future taxes, assessments, fees and charges.

Article XIIID. Article XIIID established procedural requirements for imposition of assessments, which are defined as any charge on real property for a special benefit conferred upon the real property. Standby charges are classified as assessments. Procedural requirements include the conducting of a public hearing and an election by mailed ballot, with notice to the record owner of each parcel subject to the assessment. The assessment may not be imposed if a majority of the ballots returned oppose the assessment, with each ballot weighted according to the proportional financial obligation of the affected parcel. The District does not currently impose standby charges or assessments for its Wastewater System.

Article XIIID conditions the imposition or increase of any "fee" or "charge" upon there being no written majority protest after a required public hearing and, for fees and charges other than for sewer, water or refuse collection services, voter approval. Article XIIID defines "fee" or "charge" to mean levies (other than *ad valorem* or special taxes or assessments) imposed by a local government upon a parcel or upon a person as an incident of the ownership or tenancy of real property, including a user fee or charge for a "property-related service." One of the requirements of Article XIIID is that before a property-related fee or charge may be imposed or increased, a public hearing upon the proposed fee or charge must be held and notice must be mailed to the record owner of each identified parcel of land upon which the fee or charge is proposed for imposition. In the public hearing if written protests of the proposed fee or charge are presented by a majority of the owners of affected identified parcel(s), an agency may not impose the fee or charge.

Article XIIID provides that nothing in Proposition 218 shall be construed to affect existing laws relating to the imposition of fees or charges as a condition of property development.

The California Supreme Court decisions in *Richmond v. Shasta Community Services District*, 32 Cal. 4th 409 (2004) ("Richmond"), and *Bighorn Desert View Water Agency v. Verjil*, 39 Cal. 4th 206 (2006) ("Bighorn") have clarified uncertainty surrounding the applicability of Section 6 of Article XIIID to service fees and charges. In Richmond, the California Supreme Court upheld a Court of Appeal decision that water connection fees (which included a capacity charge for capital improvements to the water system and a fire suppression charge) imposed by the Shasta Community Services District were not property related fees or charges subject to Article XIIID because a water connection fee results from the property owner's voluntary decision to apply for the connection. In both Richmond and Bighorn, however, the Court stated that a fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" within the meaning of Article XIIID, rejecting, in Bighorn, the water agency's argument that consumption based water charges are not imposed "as an incident of property ownership" but as a result of the voluntary decisions of customers as to how much water to use.

The District has followed the notice, hearing and protest procedures in Article XIIID in connection with wastewater rate increases since its Fiscal Year 2008 rate increases, and plans to follow such notice, hearing and protest procedures in connection with future rate increases.

In addition to the procedural requirements of Article XIIID, under Article XIIID all property-related fees and charges, including those which were in existence prior to the passage of Proposition 218 in November 1996, must meet the following substantive standards:

(1) Revenues derived from the fee or charge cannot exceed the funds required to provide the property-related service.

- (2) Revenues derived from the fee or charge must not be used for any purpose other than that for which the fee or charge was imposed.
- (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership must not exceed the proportional cost of the service attributable to the parcel.
- (4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, must be classified as assessments and cannot be imposed without compliance with Section 4 of Article XIIID (relating to assessments).
- (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services where the service is available to the public at large in substantially the same manner as it is to property owners.

On April 20, 2015, the California Fourth District Court of Appeal issued a decision in *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano*, 235 Cal.App.4th 1493 (2015), holding that the City of San Juan Capistrano's tiered water rates (or inclining block rates) that were in effect from February 1, 2010 through June 30, 2014 violated the requirement of Proposition 218 that a fee or charge for property-related services, such as water delivery, must be proportional to the cost of providing service. In interpreting Proposition 218, the Court of Appeal emphasized that tiered water rates, or inclining block rates, that go up progressively in relation to usage are compatible with Proposition 218. However, the court concluded that Article XIID requires that each tier must reflect the actual costs of service for property owners falling in each of the tiers. The court further concluded that the city had the burden of proof to demonstrate compliance with Proposition 218 and that the city failed to meet its burden of proof in demonstrating that its tiered water rates corresponded to the actual costs of providing service to each tier.

It is District policy to conduct periodic cost of service studies and as part of the most recent study, completed in April 2015, the District focused efforts on developing a strong and clear administrative record for its rates and charges. The District believes that its established and proposed rates for wastewater service comply with the substantive standards of Article XIIID. However, due to the uncertainties of evolving case law and potential future judicial interpretations of Proposition 218, the District is unable to predict at this time whether Proposition 218 could be interpreted, for example, to further limit fees and charges for wastewater services and/or to require stricter standards for the allocation of costs among customers and customer classes. See APPENDIX A – "THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM) – WASTEWATER SYSTEM FINANCES – Rates and Charges."

Article XIIIC. Article XIIIC provides that the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge and that the power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments. Article XIIIC does not define the terms "local tax," "assessment," "fee" or "charge." On July 24, 2006, the California Supreme Court held in Bighorn-Desert View Water Agency v. Verjil that the provisions of Article XIIIC applied to rates and fees charged for domestic water use. In the decision, the Court noted that the decision did not address whether an initiative to reduce fees and charges could override statutory rate setting obligations. The District and its General Counsel do not believe that Article XIIIC grants to the voters within the District the power to repeal or reduce rates and charges in a manner that would be inconsistent with the contractual obligations of the District.

The interpretation and application of Proposition 218 will likely be subject to further judicial determinations, and the District is unable to predict the outcome of such determinations, or what, if any, further implementing legislation will be enacted. No assurance can be given that that the courts will not further interpret Article XIIIC and Article XIIID to limit the ability of the District to impose, levy, charge and collect increased fees and charges for wastewater services, or the voters of the District will not, in the future, approve initiatives which seek to repeal, reduce or prohibit the future imposition or increase of assessments, fees or charges, including the District's wastewater service fees and charges, which are the source of Subordinated Wastewater Revenues pledged to the payment of debt service on the Series 2017A Bonds.

Proposition 26

Proposition 26, which amended Articles XIIIA and XIIIC of the California Constitution, was approved by the electorate at the November 2, 2010 election. Proposition 26 imposes a majority voter approval requirement on local governments such as the District with respect to certain fees and charges for general purposes, and a two-thirds voter approval requirement with respect to certain fees and charges for special purposes, unless the fees and charges are expressly excluded. Proposition 26, according to its supporters, was intended to prevent the circumvention of tax limitations imposed by the voters in California Constitution Articles XIIIA, XIIIC and XIIID pursuant to Proposition 13, approved in 1978, Proposition 218, approved in 1996, and other measures. Proposition 26 expressly excludes from its scope "a charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the local government of providing the service or product" and "assessments and property-related fees imposed in accordance with the provisions of Article XIIID." The District believes that its wastewater fees and charges meet the criteria for exclusion under Proposition 26 and that the initiative is not intended to, and would not, apply to fees for wastewater services charged by the District. The District is unable to predict, however, how Proposition 26 will be interpreted by the courts or what its ultimate impact will be.

Other Initiatives

Articles XIIIA, XIIIB, XIIIC and XIIID and Propositions 62 and 26 were adopted as measures that qualified for the ballot pursuant to California's initiative process. From time to time other initiatives have been and could be proposed and adopted affecting the District's revenues or ability to increase revenues. Neither the nature and impact of these measures nor the likelihood of qualification for ballot or passage can be anticipated by the District.

CONTINUING DISCLOSURE

Pursuant to a Continuing Disclosure Agreement, dated the date of delivery of the Series 2017A Bonds, by and between the District and the Trustee, as dissemination agent, the District will covenant and agree for the benefit of the holders and beneficial owners of the Series 2017A Bonds to provide in an Annual Report certain financial information and operating data relating to the District by not later than 180 days following the end of the District's fiscal year (which currently is June 30 of each year), commencing with the Annual Report for Fiscal Year 2016-17, and to provide notices of the occurrence of certain specified events. The Annual Report and the notices of specified events will be filed by the Trustee on behalf of the District with the Municipal Securities Rulemaking Board through EMMA. The Municipal Securities Rulemaking Board has made such information available to the public without charge through such internet portal. The specific nature of the information to be contained in the Annual Report and the notices of specified events is set forth in APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

As of the date hereof, the District is in compliance in all material respects with its continuing disclosure undertakings for the last five years. Filings through EMMA are linked to a particular issue of obligations by CUSIP number (which is subject to change after the issuance of obligations as a result of various subsequent actions). The District uses its best efforts to confirm that each report filed through EMMA is linked to all the correct 9-digit CUSIP numbers. However, as a technical matter, it has come to the District's attention that certain filings during the past five years (primarily certain Annual Reports), when made, were not appropriately linked to all applicable CUSIP numbers. The District has since linked the applicable filings to the additional CUSIPs.

LITIGATION

There is no action, suit or proceeding known to be pending or threatened, restraining or enjoining the District in the issuance and delivery of, or in any way contesting or affecting the validity of, the Series 2017A Bonds. There is no litigation known to be pending, or to the knowledge of the District, threatened, questioning the existence of the District or the title of the officers of the District to their respective offices.

At any given time, including the present, there are certain other claims and lawsuits against the District that arise in the normal course of operations of the Wastewater System. Such matters could, if determined adversely to the District, affect expenditures by the District, and in some cases, Wastewater Revenues. In the view of the District's management and General Counsel, there is no litigation, present or pending, which will individually or in the aggregate materially impair the District's ability to service its indebtedness or which will have a material adverse effect on the business operations of the District.

RATINGS

Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business ("S&P"), Fitch Ratings, Inc. ("Fitch") and Moody's Investors Service, Inc. ("Moody's") have assigned the Series 2017A Bonds the ratings of "____," "and "____," respectively. No application has been made to any other rating agency for the purpose of obtaining any additional rating on the Series 2017A Bonds. Any desired explanation of such ratings should be obtained from the rating agency furnishing the same. Generally, rating agencies base their ratings on information and materials furnished to them and on investigations, studies and assumptions by the rating agencies. There is no assurance that any rating will continue for any given period of time or that it will not be revised downward or withdrawn entirely by such rating agency if, in the judgment of such rating agency, circumstances so warrant. Any such change in or withdrawal of such ratings may have an adverse effect on the market price of the Series 2017A Bonds.

TAX MATTERS

In the opinion of Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Initial Purchaser ("Special Tax Counsel"), based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Series 2017A Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code") and is exempt from State of California personal income taxes. Special Tax Counsel is of the further opinion that interest on the Series 2017A Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Special Tax Counsel observes that such interest is included in adjusted current earnings when calculating corporate alternative minimum taxable income. A complete copy of the proposed form of opinion of Special Tax Counsel is set forth in APPENDIX D.

To the extent the issue price of any maturity of the Series 2017A Bonds is less than the amount to be paid at maturity of such Series 2017A Bonds (excluding amounts stated to be interest and payable at least annually over the term of such Series 2017A Bonds), the difference constitutes "original issue discount," the accrual of which, to the extent properly allocable to each beneficial owner thereof, is treated as interest on the Series 2017A Bonds which is excluded from gross income for federal income tax purposes and is exempt from State of California personal income taxes. For this purpose, the issue price of a particular maturity of the Series 2017A Bonds is the first price at which a substantial amount of such maturity of the Series 2017A Bonds is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of Initial Purchaser, placement agents or wholesalers). The original issue discount with respect to any maturity of the Series 2017A Bonds accrues daily over the term to maturity of such Series 2017A Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such Series 2017A Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such Series 2017A Bonds. Beneficial owners of the Series 2017A Bonds should consult their own tax advisors with respect to the tax consequences of ownership of Series 2017A Bonds with original issue discount, including the treatment of beneficial owners who do not purchase such Series 2017A Bonds in the original offering to the public at the first price at which a substantial amount of such Series 2017A Bonds is sold to the public.

Series 2017A Bonds purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) (the "Premium Bonds") will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of bonds, like the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and a beneficial owner's basis in a Premium Bond, will be reduced by the amount of amortizable bond premium properly allocable to such beneficial owner. Beneficial owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Series 2017A Bonds. The District has made certain representations and covenanted to comply with certain restrictions, conditions and requirements designed to ensure that interest on the Series 2017A Bonds will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these covenants may result in interest on the Series 2017A Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the Series 2017A Bonds. The opinion of Special Tax Counsel assumes the accuracy of these representations and compliance with these covenants. Special Tax Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring), or any other matters coming to Special Tax Counsel's attention after the date of issuance of the Series 2017A Bonds may adversely affect the value of, or the tax status of interest on, the Series 2017A Bonds. Accordingly, the opinion of Special Tax Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Special Tax Counsel is of the opinion that interest on the Series 2017A Bonds is excluded from gross income for federal income tax purposes and is exempt from State of California personal income taxes, the ownership or disposition of, or the accrual or receipt of amounts treated as interest on, the Series 2017A Bonds may otherwise affect a beneficial owner's federal, state or local tax liability. The nature and extent of these other tax consequences depends upon the particular tax status of the beneficial owner or the beneficial owner's other items of income or deduction. Special Tax Counsel expresses no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Series 2017A Bonds to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent beneficial owners from realizing the full current benefit of the tax status of such interest. For example, presidential budget proposals in previous years have proposed legislation that would limit the exclusion from gross income of interest on the Series 2017A Bonds to some extent for high-income individuals. The introduction or enactment of any such legislative proposals or clarification of the Code or court decisions may also affect, perhaps significantly, the market price for, or marketability of, the Series 2017A Bonds. Prospective purchasers of the Series 2017A Bonds should consult their own tax advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation as to which Special Tax Counsel is expected to express no opinion.

The opinion of Special Tax Counsel is based on current legal authority, covers certain matters not directly addressed by such authorities, and represents Special Tax Counsel's judgment as to the proper treatment of the Series 2017A Bonds for federal income tax purposes. It is not binding on the Internal Revenue Service ("IRS") or the courts. Furthermore, Special Tax Counsel cannot give and has not given any opinion or assurance about the future activities of the District, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The District has covenanted, however, to comply with the requirements of the Code.

Special Tax Counsel's engagement with respect to the Series 2017A Bonds ends with the issuance of the Series 2017A Bonds, and, unless separately engaged, Special Tax Counsel is not obligated to defend the District or the beneficial owners regarding the tax-exempt status of the Series 2017A Bonds in the event of an audit examination by the IRS. Under current procedures, parties other than the District and their appointed counsel, including the beneficial owners, would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the District legitimately disagree, may not be practicable. Any action of the IRS, including but not limited to selection of the Series 2017A Bonds for audit, or the course or result of such audit, or an audit of Series 2017A Bonds presenting similar tax issues may affect the market price for, or the marketability of, the Series 2017A Bonds, and may cause the District or the beneficial owners to incur significant expense.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

"Verification Agent"), will deliver a report stating that the firm has verified (i) the accuracy of mathematical computations concerning the adequacy of the cash deposited in the 2007B Escrow Fund to pay on the applicable redemption date for the Refunded 2007B Bonds the redemption price of such Refunded 2007B Bonds to be redeemed on such date, plus accrued interest thereon, (ii) the accuracy of mathematical computations concerning the adequacy of the maturing principal amounts of the Federal Securities to be deposited to the 2010A Escrow Fund and interest to be earned thereon, together with amounts held as cash in the 2010A Escrow Fund, to pay interest due with respect to the Refunded 2010A Bonds on and prior to the redemption date therefor, and to pay on such redemption date, the redemption price of the Refunded 2010A Bonds to be redeemed on such date, and (iii) certain mathematical computations supporting the conclusion that the Series 2017A Bonds are not "arbitrage bonds" under the Code, which will be used in part by Special Tax Counsel in concluding that interest on the Series 2017A Bonds is excluded from gross income for federal income tax purposes under present laws, including applicable provisions of the Code, existing court rulings, regulations and Internal Revenue Service rulings.

The report of the Verification Agent will include the statement that the scope of their engagement was limited to verifying the mathematical accuracy of the computations contained in the schedules provided to them and that they have no obligation to update their report because of events occurring, or data or information coming to their attention, subsequent to the date of their report.

PURCHASE AND REOFFERING

(the "Initial Purchaser") purchased the Series 2017A Box	nds from the Distric
at a competitive sale at a purchase price of \$, representing the \$	aggregate principa
amount of the Series 2017A Bonds, less an Initial Purchaser's discount of \$, [plus/less
original issue premium/discount of \$].	

The public offering prices may be changed from time to time by the Initial Purchaser. The Initial Purchaser may offer and sell Series 2017A Bonds to certain dealers and others at prices lower than the offering prices shown on the inside cover page hereof.

APPROVAL OF LEGAL PROCEEDINGS

All legal matters incident to the offering of the Series 2017A Bonds are subject to the approval of legality by Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel. Certain legal matters will be passed upon for the District by its General Counsel. Orrick, Herrington & Sutcliffe LLP, San Francisco, California, is serving as Special Tax Counsel to the Initial Purchaser in connection with the Series 2017A Bonds. The form of approving opinion of Co-Bond Counsel and the form of opinion to be delivered by Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Initial Purchaser, in connection with the issuance of the Series 2017A Bonds are included as APPENDIX D – "PROPOSED FORMS OF CO-BOND COUNSEL OPINION AND SPECIAL TAX COUNSEL OPINION" to this Official Statement.

CO-MUNICIPAL ADVISORS

The District has retained Montague DeRose and Associates, LLC, Walnut Creek, California, and Backstrom McCarley Berry & Co., LLC, San Francisco, California, as co-municipal advisors (the "Co-Municipal Advisors") in connection with the issuance and delivery of the Series 2017A Bonds. The Co-Municipal Advisors are not obligated to undertake, and have not undertaken to make, an independent verification or assume responsibility for the accuracy, completeness, or fairness of the information contained in this Official Statement.

INDEPENDENT ACCOUNTANTS

Included as APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015" to this Official Statement are the audited financial statements of the District for the Fiscal Years ended June 30, 2016 and 2015. The District's financial statements for the Fiscal Years ended June 30, 2016 and 2015, included in APPENDIX B, have been audited by Maze & Associates, certified public accountants. Maze & Associates has not been requested to consent to the inclusion of its report in APPENDIX B and it has not undertaken to update its report or to take any action intended or likely to elicit information concerning the accuracy, completeness or fairness of the statements made in this Official Statement, and no opinion is expressed by Maze & Associates with respect to any event subsequent to the date of its report.

It is District policy to competitively select and retain independent accountants on a periodic basis. Maze & Associates began serving as the District's independent accountants in Fiscal Year 2005. In 2012,

following a request for proposals and competitive selection process, Maze & Associates was retained under contract with the District to serve as independent accountants for the three fiscal years ending June 30, 2012 through 2014, which contract term was subsequently extended in November 2014 for an additional two-year period for the fiscal years ending June 30, 2015 and 2016. In November 2016, the District extended its contract with Maze & Associates to serve as independent accountants pursuant to the contract terms for the final additional two-year period for the fiscal years ending June 30, 2017 and 2018.

MISCELLANEOUS

References made herein to certain documents and reports are brief summaries thereof and do not purport to be complete or definitive and reference is hereby made to such documents and reports for a full and complete statement of the contents thereof.

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the District and the purchasers or registered owners of any of the Series 2017A Bonds. The delivery and distribution of this Official Statement have been duly authorized by the District.

EAST BAY MUNICIPAL UTILITY DISTRICT

By		
•	General Manager	

APPENDIX A

THE EAST BAY MUNICIPAL UTILITY DISTRICT (THE WASTEWATER SYSTEM)

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APPENDIX B

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

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

The following is a summary of certain provisions of the Indenture. This summary reflects amendments to the Indenture that will become effective upon the issuance of the Series 2017A Bonds. This summary is not to be considered a full statement of the terms of the Indenture and accordingly is qualified by reference thereto and is subject to the full text thereof. Capitalized terms not defined in this summary or elsewhere in the Official Statement have the respective meanings set forth in the Indenture.

There are no senior Wastewater Bonds outstanding, and the District has covenanted in the Indenture not to issue any senior Wastewater Bonds in the future. Therefore, all references hereto to "Wastewater Bonds" may be disregarded.

Certain Definitions

- "Accreted Value" means, with respect to any Capital Appreciation Indebtedness, the principal amount thereof plus the interest accrued thereon, compounded at the interest rate thereon on each date as specified in the Indenture.
- "Act" means the Municipal Utility District Act, constituting Division 6 of the Public Utilities Code of the State of California, and all laws of the State of California amendatory thereof or supplemental thereto, including the Revenue Bond Law of 1941, as made applicable by Article 6a of Chapter 6 of said Division 6, and Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California.
- "Annual Debt Service" means, for any Fiscal Year, the aggregate amount of principal and interest on all Wastewater Bonds, Bonds and Parity Debt becoming due and payable during such Fiscal Year calculated using the principles and assumptions set forth under the definition of Debt Service.
- "Assumed Debt Service" means, for any Fiscal Year, the aggregate amount of principal and interest which would be payable on all Wastewater Bonds, Bonds and Parity Debt if each Excluded Principal Payment were amortized for a period specified by the District (but no longer than thirty (30) years from the date of the issuance of the Wastewater Bonds, Bonds or Parity Debt to which such Excluded Principal Payment relates) on a substantially level debt service basis or other amortization basis provided by the District, calculated based on a fixed interest rate equal to the rate at which the District could borrow for such period, as certified by a certificate of a financial advisor or investment banker delivered to the Trustee, who may rely conclusively on such certificate, within thirty (30) days of the date of calculation.
- **"Bond Obligation"** means, as of any given date of calculation, (1) with respect to any Outstanding Bond or Wastewater Bond which is Current Interest Indebtedness, the principal amount thereof, and (2) with respect to any Outstanding Bond or Wastewater Bond which is Capital Appreciation Indebtedness, the Accreted Value thereof.
 - "Bonds" means the bonds authorized by, and at any time Outstanding pursuant to, the Indenture.
- "Business Day" means any day other than (1) a Saturday, Sunday, or a day on which banking institutions in the State of California or the State of New York are authorized or obligated by law or executive order to be closed, and (2) for purposes of payments and other actions related to Bonds secured

by a letter of credit, a day upon which commercial banks in the city in which is located the office of the issuing bank at which demands for payment under the letter of credit are to be presented are authorized or obligated by law or executive order to be closed.

- "Capital Appreciation Indebtedness" means Wastewater Bonds, Bonds and Parity Debt on which interest is compounded and paid less frequently than annually.
- "Code" means the Internal Revenue Code of 1986, and the regulations applicable thereto or issued thereunder, as amended from time to time.
- "Current Interest Indebtedness" means the Wastewater Bonds, Bonds and Parity Debt on which interest is paid at least annually.
- **"Debt Service"** means, the amount of principal and interest becoming due and payable on all Wastewater Bonds, Bonds and Parity Debt provided, however, for the purpose of computing Debt Service:
 - (a) Excluded Principal Payments shall be excluded from such calculation and Assumed Debt Service shall be included in such calculation;
 - (b) if the Wastewater Bonds, Bonds or Parity Debt are Variable Rate Indebtedness, the interest rate thereon for periods when the actual interest rate cannot yet be determined shall be assumed to be equal to the average of the SIFMA Municipal Swap Index for the five (5) years preceding such date of calculation (provided, however, that if such index is no longer published, the interest rate on such Wastewater Bonds, Bonds or Parity Debt shall be calculated based upon such similar index as the District shall designate in writing to the Trustee) (the "Assumed SIFMA-based Rate");
 - (c) principal and interest payments on Wastewater Bonds, Bonds and Parity Debt shall be excluded to the extent such payments are to be paid from amounts on deposit with the Trustee or another fiduciary in escrow or trust specifically therefor and to the extent that such interest payments are to be paid from the proceeds of Wastewater Bonds, Bonds or Parity Debt held by the Trustee or another fiduciary as capitalized interest;
 - (d) in determining the principal amount, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any Mandatory Sinking Account Payments or any scheduled redemption or payment of Wastewater Bonds, Bonds or Parity Debt on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value shall be deemed a principal payment and interest that is compounded and paid as Accreted Value shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Indebtedness;
 - (e) if any interest rate swap agreement is in effect with respect to, and the regularly scheduled payments thereunder are payable on a parity with, the Wastewater Bonds, Bonds or Parity Debt to which it relates, interest deemed to be payable on any such Wastewater Bonds, Bonds or Parity Debt with respect to which an interest rate swap agreement is in effect shall be based on the net economic effect expected by the District to be produced by the terms of such Wastewater Bonds, Bonds or Parity Debt and such interest rate swap agreement, including but not limited to the effects that (i) such Wastewater Bonds, Bonds or Parity Debt would, but for such interest rate swap agreement, be treated as Variable Rate Indebtedness instead shall be treated as

Wastewater Bonds, Bonds or Parity Debt bearing interest at a fixed interest rate, and (ii) such Wastewater Bonds, Bonds or Parity Debt would, but for such interest rate swap agreement, be treated as Wastewater Bonds, Bonds or Parity Debt bearing interest at a fixed interest rate instead shall be treated as Variable Rate Indebtedness; and accordingly, the amount of interest deemed to be payable on any Wastewater Bonds, Bonds or Parity Debt with respect to which an interest rate swap agreement is in force shall be an amount equal to the amount of interest that would be payable at the rate or rates stated in such Wastewater Bonds, Bonds or Parity Debt plus the amounts payable by the District under such interest rate swap agreement, minus the amounts receivable by the District under such interest rate swap agreement, and for the purpose of calculating as nearly as practicable such amounts, the following assumptions shall be made:

- (1) if an interest rate swap agreement has been entered into by the District with respect to Wastewater Bonds, Bonds or Parity Debt providing for the payment of a net variable interest rate under such interest rate swap agreement with respect to such Wastewater Bonds, Bonds or Parity Debt by the District, the interest rate on such Wastewater Bonds, Bonds or Parity Debt for future periods when the actual interest rate cannot yet be determined shall be assumed (but only during the period the interest rate swap agreement is in effect) to be equal to the sum of (A) the fixed rate or rates stated in such Wastewater Bonds, Bonds or Parity Debt minus (B) the fixed rate paid by the counterparty of such interest rate swap agreement to the District, plus (C) the lesser of (x) the interest rate cap, if any, provided by a counterparty with respect to such interest rate swap agreement (but only during the period that such interest rate cap is in effect) and (y) the applicable variable interest rate calculated in accordance with paragraph (b) above; and
- (2) if an interest rate swap agreement has been entered into by the District with respect to Wastewater Bonds, Bonds or Parity Debt providing for the payment of a fixed rate of interest to maturity or for a specific term under such interest rate swap agreement with respect to such Wastewater Bonds, Bonds or Parity Debt by the District, the interest on such Wastewater Bonds, Bonds or Parity Debt shall be included in the calculation of payments (but only during the period the interest rate swap agreement is in effect) by including for each period of calculation an amount equal to the amount of interest payable at the fixed interest rate pursuant to such interest rate swap agreement.

Notwithstanding any other paragraph of this definition of Debt Service, except as set forth in this paragraph (e), no amounts payable under any interest rate swap agreement (including termination payments) shall be included in the calculation of Debt Service;

(f) if any Wastewater Bonds, Bonds or Parity Debt are Variable Rate Indebtedness subject to tender for purchase and funds for the purchase price may be provided by a letter of credit, line of credit, revolving credit agreement, standby bond purchase agreement or other liquidity facility which, if drawn upon, could create a repayment obligation which has a lien on Subordinated Wastewater Revenues on parity with the lien of the Wastewater Bonds, Bonds or Parity Debt, then for purposes of determining the amounts of principal due in any Fiscal Year on such Wastewater Bonds, Bonds or Parity Debt, (i) the options or obligations of the owners of such Wastewater Bonds, Bonds or Parity Debt to tender the same for purchase or payment prior to the stated maturity or maturities shall be ignored and not treated as a principal maturity; and (ii) any repayment obligations of the District to the provider of such letter of credit, line of credit, revolving credit agreement, standby bond purchase agreement or other liquidity facility, other than its obligations on such Wastewater Bonds, Bonds or Parity Debt, shall be treated as Excluded Principal Payments; and

- (g) if interest on any Wastewater Bonds, Bonds or Parity Debt is reasonably anticipated to be reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program, then interest payments with respect to such Wastewater Bonds, Bonds or Parity Debt shall be reduced by the amount of such interest reasonably anticipated to be paid or reimbursed by the United States of America.
- **"Excluded Principal Payments"** means each payment of principal (or the principal component of lease or installment purchase payments) of Wastewater Bonds, Bonds or Parity Debt which the District determines on a date not later than the date of issuance thereof that the District intends to pay with moneys which are not Wastewater Revenues or Subordinated Wastewater Revenues but from the proceeds of future debt obligations of the District and the Trustee may rely conclusively on such determination of the District.
- **"Fiscal Year"** means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other twelve-month period selected and designated as the official fiscal year period of the District, which designation shall be provided to the Trustee in a certificate of the District.

"Indenture" means the Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the Trustee and the District, as originally executed or as it may from time to time be supplemented or amended by any Supplemental Indenture delivered pursuant to the provisions thereof.

"Investment Securities" means the following:

- (i) any bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America, including obligations of any of the Federal agencies and Federally sponsored entities set forth in clause (iii) below to the extent unconditionally guaranteed by the United States of America;
- (ii) any certificates, receipts, securities or other obligations evidencing ownership of, or the right to receive, a specified portion of one or more interest payments or principal payments, or any combination thereof, to be made on any bond, note, or other obligation described above in clause (i);
- (iii) obligations of the Federal National Mortgage Association, the Government National Mortgage Association, Federal Home Loan Banks and Federal Home Loan Mortgage Corporation;
- (iv) obligations of any state, territory or commonwealth of the United States of America or any political subdivision thereof or any agency or department of the foregoing; provided that at the time of their purchase such obligations are rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (v) any bonds or other obligations of any state of the United States of America or any political subdivision thereof (a) which are not callable prior to maturity or as to which irrevocable instructions have been given to the trustee of such bonds or their obligations by the obligor to give due notice of redemption and to call such bonds for redemption on the date or dates specified in such instructions, (b) which are secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash or bonds or other obligations of the character described above in clause (i), (ii) or (iii) which fund may be applied only to the

payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the interest payment dates and the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, (c) as to which the principal of and interest on the bonds and obligations of the character described above in clause (i), (ii) or (iii) which have been deposited in such fund along with any cash on deposit in such fund are sufficient to pay the principal of and interest and redemption premium, if any, on the bonds or other obligations described in this clause (v) on the interest payment dates and the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in subclause (a) of this clause (v), as appropriate, and (d) which have been rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);

- (vi) bonds, notes, debentures or other evidences of indebtedness issued or guaranteed by any corporation which are, at the time of purchase, rated by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds) in their respective highest short-term Rating Categories, or, if the term of such indebtedness is longer than three (3) years, rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (vii) demand or time deposits or certificates of deposit, whether negotiable or nonnegotiable, issued by any bank or trust company organized under the laws of any state of the United States of America or any national banking association (including the Trustee), provided that such certificates of deposit shall be purchased directly from such a bank, trust company or national banking association and shall be either (1) continuously and fully insured by the Federal Deposit Insurance Corporation, or (2) continuously and fully secured by such securities and obligations as are described above in clauses (i) through (iv), inclusive, which shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit and shall be lodged with the Trustee, as custodian, by the bank, trust company or national banking association issuing such certificates of deposit, and the bank, trust company or national banking association issuing each such certificate of deposit required to be so secured shall furnish the Trustee with an undertaking satisfactory to it that the aggregate market value of all such obligations securing each such certificate of deposit will at all times be an amount equal to the principal amount of each such certificate of deposit and the Trustee shall be entitled to rely on each such undertaking;
- (viii) taxable commercial paper or tax-exempt commercial paper rated in their respective highest Rating Categories by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (ix) variable rate obligations required to be redeemed or purchased by the obligor or its agent or designee upon demand of the holder thereof secured as to such redemption or purchase requirement by a liquidity agreement with a corporation and as to the payment of interest and principal either upon maturity or redemption (other than upon demand by the holder thereof) thereof by an unconditional credit facility of a corporation, provided that the variable rate obligations themselves are rated in their respective highest Rating Categories for its short-term rating, if any, and not lower than their respective ratings on the Bonds for its long-term rating, if any, by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds), and that the corporations providing the liquidity agreement and credit facility have, at the date of acquisition of the variable rate obligation by the Trustee, an outstanding issue of unsecured, uninsured and unguaranteed debt obligations rated not lower than

their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);

- any repurchase agreement with any bank or trust company organized under the (x) laws of any state of the United States or any national banking association (including the Trustee) having a minimum permanent capital of one hundred million dollars (\$100,000,000) and with short-term debt rated by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds) in their respective four highest short-term rating categories or government bond dealer reporting to, trading with, and recognized as a primary dealer by the Federal Reserve Bank of New York, which agreement is secured by any one or more of the securities and obligations described in clauses (i), (ii) or (iii) above, which shall have a market value (exclusive of accrued interest and valued at least monthly) at least equal to the principal amount of such investment and shall be lodged with the Trustee or other fiduciary, as custodian for the Trustee, by the bank, trust company, national banking association or bond dealer executing such repurchase agreement, and the entity executing each such repurchase agreement required to be so secured shall furnish the Trustee with an undertaking satisfactory to it that the aggregate market value of all such obligations securing each such repurchase agreement (as valued at least monthly) will be an amount equal to the principal amount of each such repurchase agreement and the Trustee shall be entitled to rely on each such undertaking;
- (xi) any cash sweep or similar account arrangement of or available to the Trustee, the investments of which are limited to investments described in clauses (i), (ii), (iii), (iv) and (x) of this definition of Investment Securities and any money market fund, the entire investments of which are limited to investments described in clauses (i), (ii), (iii), (iv) and (x) of this definition of Investment Securities and which money market fund is rated in their respective highest Rating Categories by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds); provided that as used in this clause (xi) and clause (xii) investments will be deemed to satisfy the requirements of clause (x) if they meet the requirements set forth in clause (x) ending with the words "clauses (i), (ii) or (iii) above" and without regard to the remainder of such clause (x);
- (xii) a guaranteed investment contract with a financial institution or insurance company which has at the date of execution thereof an outstanding issue of unsecured, uninsured and unguaranteed debt obligations or a claims paying ability rated not lower than their respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds);
- (xiii) shares of beneficial interest in diversified management companies investing exclusively in securities and obligations described in clauses (i) through (xii) of this definition of Investment Securities and which companies are rated in their respective highest Rating Categories by Moody's (if Moody's is then rating the Bonds) and Standard & Poor's (if Standard & Poor's is then rating the Bonds) or have an investment advisor registered with the Securities and Exchange Commission with not less than five years' experience investing in such securities and obligations and with assets under management in excess of \$500,000,000; and
- (xiv) any investment approved by the Board for which confirmation is received from each rating agency then rating any of the Bonds that such investment will not adversely affect such agency's rating on such Bonds.

"Mandatory Sinking Account Payment" means the amount required to be deposited by the District in a sinking account for the payment of term Bonds.

- **"Maximum Annual Debt Service"** means, the greatest amount of principal and interest becoming due and payable on all Wastewater Bonds, Bonds and Parity Debt in the Fiscal Year in which the calculation is made or any subsequent Fiscal Year calculated using the principles and assumptions set forth under the definition of Debt Service.
- "Moody's" means Moody's Investors Service, a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, and its successors and assigns, except that if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, then the term "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency selected by the District and not objected to by the Trustee.
- "Opinion of Bond Counsel" means a written opinion of a law firm of national standing in the field of public finance selected by the District and not objected to by the Trustee.
- "Outstanding," when used at any particular time with reference to Bonds, means (subject to the provisions relating to disqualified bonds) all Bonds theretofore, or thereupon being, authenticated and delivered by the Trustee under the Indenture except (1) Bonds theretofore cancelled by the Trustee or surrendered to the Trustee for cancellation; (2) Bonds with respect to which all liability of the District shall have been discharged under the Indenture; and (3) Bonds for the transfer or exchange of or in lieu of or in substitution for which other Bonds shall have been authenticated and delivered by the Trustee pursuant to the Indenture.
- "Owner" or "Bondholder" or "Bondowner," whenever used with respect to a Bond, means the person in whose name such Bond is registered.
- **"Parity Debt"** means any indebtedness, installment sale obligation, lease obligation or other obligation of the District for borrowed money or interest rate swap agreement having an equal lien and charge upon the Subordinated Wastewater Revenues and therefore payable on a parity with the Bonds (whether or not any Bonds are Outstanding).
- **"Person"** means a corporation, firm, association, partnership, trust, or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.
- **"Rating Category"** means (i) with respect to any long-term rating category, all ratings designated by a particular letter or combination of letters, without regard to any numerical modifier, plus or minus sign or other modifier and (ii) with respect to any short-term or commercial paper rating category, all ratings designated by a particular letter or combination of letters and taking into account any numerical modifier, but not any plus or minus sign or other modifier.
- **"Redemption Price"** means with respect to any Bond (or portion thereof) the principal amount of such Bond (or portion thereof) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and the Indenture.
- "Revenue Fund" means the fund held in trust by the District to which the Subordinated Wastewater Revenues are required to be deposited.
- "Series" whenever used with respect to Bonds, means all of the Bonds designated as being of the same series, authenticated and delivered in a simultaneous transaction, regardless of variations in maturity, interest rate, redemption and other provisions, and any Bonds thereafter authenticated and delivered upon transfer or exchange or in lieu of or in substitution for (but not to refund) such Bonds as provided in the Indenture.

"SIFMA Municipal Swap Index" means, on any date, a rate determined on the basis of the seven-day high grade market index of tax-exempt variable rate demand obligations, as produced by Municipal Market Data and published or made available by the Securities Industry & Financial Markets Association (formerly the Bond Market Association) ("SIFMA") or by any Person acting in cooperation with or under the sponsorship of SIFMA and effective from such date.

"Standard & Poor's" means Standard & Poor's Corporation, a corporation duly organized and existing under and by virtue of the laws of the State of New York, and its successors and assigns, except that if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, then the term "Standard & Poor's" shall be deemed to refer to any other nationally recognized securities rating agency selected by the District and not objected to by the Trustee.

"Subordinated Wastewater Revenues" for any fiscal period means the sum of (a) the Wastewater Revenues for such fiscal period plus (b) the amounts, if any, withdrawn by the District from the Rate Stabilization Fund created in the Wastewater Bond Resolution for treatment as Wastewater Revenues for such fiscal period, less the sum of (c) all Wastewater Operation and Maintenance Costs for such fiscal period, (d) the amounts, if any, withdrawn by the District from Wastewater Revenues for such fiscal period for deposit in such Rate Stabilization Fund, and (e) all amounts required to be paid under the Wastewater Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Wastewater Bonds as the same become due and payable.

"Variable Rate Indebtedness" means any indebtedness the interest rate on which is not fixed at the time of incurrence of such indebtedness, and has not at some subsequent date been fixed, at a single numerical rate for the entire term of the indebtedness.

"Wastewater Bond Resolution" means Resolution No. 30051 of the District, adopted on January 26, 1982, as amended and supplemented from time to time. All obligations of the District under the Wastewater Bond Resolution have ceased and been discharged; provided, however, that the Rate Stabilization Fund created thereunder shall continue.

"Wastewater Bonds" means all bonds and other obligations of the District issued pursuant to the Wastewater Bond Resolution.

"Wastewater Operation and Maintenance Costs" means the reasonable and necessary costs of maintaining and operating the Wastewater System, calculated on sound accounting principles, including (among other things) the reasonable expenses of management, repair and other expenses necessary to maintain and preserve the Wastewater System in good repair and working order, and reasonable amounts for administration, overhead, insurance, taxes and other similar costs, but excluding in all cases depreciation and obsolescence charges or reserves therefor and amortization of intangibles or other bookkeeping entries of a similar nature, and excluding all costs paid from the proceeds of taxes received by the District.

"Wastewater Revenues" means, 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, together with income from the investment of any moneys in any fund or account established under the Wastewater Bond Resolution or the Indenture; provided, however, there shall be excluded therefrom any amounts reimbursed to the District by the United States of America pursuant to Section 54AA of the Code, or any future similar program.

"Wastewater System" means the entire sewage disposal system of Special District No. 1 of the District and all of the facilities thereof, including all facilities for the disposal of sewage, sewage

treatment works, wastewater disposal facilities, sludge treatment facilities, intercepting and outfall sewers, power generation facilities, and other facilities necessary or convenient for the collection, treatment of disposition of sewage and wastewater for Special District No. 1 of the District, together with all additions, betterments, extensions and improvements to said system or any part thereof.

Pledge of Revenues

The Bonds are revenue obligations of the District and are payable as to both principal and interest, and any premium upon redemption thereof, exclusively from the Subordinated Wastewater Revenues and other amounts held by the Trustee (except for amounts held in the Rebate Fund). The Subordinated Wastewater Revenues are pledged to the payment of Bonds and Parity Debt without priority or distinction of one over the other. Said pledge constitutes a first lien on the Subordinated Wastewater Revenues and such other amounts referred to in this paragraph.

Allocation of Subordinated Wastewater Revenues

The District is to transfer the moneys in the Revenue Fund, into the following respective funds, in the following amounts, in the following order of priority, the requirements of each such fund (including the making up of any deficiencies in any such fund resulting from lack of Subordinated Wastewater Revenues sufficient to make any earlier required deposit) at the time of deposit to be satisfied before any deposit is made to any fund subsequent in priority.

- (1) <u>Interest Fund</u>. The District shall transfer to the Trustee and the Trustee shall set aside in the Interest Fund on or before the Business Day prior to each interest payment date therefor an amount equal to the interest becoming due and payable on the Outstanding Bonds which are Current Interest Indebtedness (excluding any interest for which there are moneys on deposit in the Interest Fund from the proceeds of any Series of Bonds or other source to pay such interest).
- (2) Principal Fund; Sinking Accounts. The District shall transfer to the Trustee and the Trustee shall set aside in the Principal Fund on or before the Business Day prior to each principal or Sinking Account payment date therefor an amount equal to (a) the amount of Bond Obligation becoming due and payable on the Outstanding Serial Bonds, plus (b) the Mandatory Sinking Account Payments to be paid into the respective Sinking Accounts for the Term Bonds; provided that if the District certifies to the Trustee that any principal payments are expected to be refunded on or prior to their respective due dates or paid from excess amounts on deposit in a bond reserve fund upon such payment, no amounts need be set aside towards such principal to be so refunded or paid. All of the aforesaid Mandatory Sinking Account Payments shall be made without priority of any payment into any one such Sinking Account over any other such payment.
- (3) <u>Bond Reserve Funds</u>. Upon the occurrence of any deficiency in any Bond Reserve Fund established under the Indenture for any Series of Bonds, the District shall transfer to the Trustee and the Trustee shall set aside in such Bond Reserve Fund an amount equal to the aggregate amount of each unreplenished prior withdrawal from the Bond Reserve Fund until there is on deposit in such Bond Reserve Fund an amount equal to the respective reserve requirement.

Any Subordinated Wastewater Revenues remaining after the foregoing transfers shall be held free and clear of the Indenture by the District and it may use and apply such Subordinated Wastewater Revenues for any lawful purpose of the District, including the redemption and purchase of Bonds.

If on any principal payment date, interest payment date or mandatory redemption date the amounts on deposit in the Interest Fund and Principal Fund, including the Sinking Accounts therein are insufficient to make such payments, the Trustee shall immediately notify the District of such deficiency and direct that the District transfer the amount of such deficiency to the Trustee on such payment date. The District covenants and agrees to transfer to the Trustee from any Subordinated Wastewater Revenues in its possession the amount of such deficiency on the principal, interest or mandatory redemption date referenced in such notice.

Investments

All moneys in any of the funds and accounts held by the Trustee shall be invested, as directed by the District, solely in Investment Securities.

The District may and the Trustee shall, upon the Request of the District, enter into a financial futures or financial option contract with an entity the debt securities of which are rated in their respective highest short-term Rating Categories by Moody's and Standard & Poor's.

The District may and the Trustee shall, upon the Request of the District, and provided that the Trustee is supplied with an Opinion of Bond Counsel to the effect that such action is permitted under the laws of the State of California, enter into an interest rate swap agreement corresponding to the interest rate or rates payable on a Series of Bonds or any portion thereof and the amounts received by the District or the Trustee, if any, pursuant to such a swap agreement may be applied to the deposits required hereunder; in which case, the entity with which the District or the Trustee may contract for an interest rate swap is limited to entities the debt securities of which are rated in their respective highest short-term debt Rating Categories by Moody's and Standard & Poor's. If the District so designates, amounts payable under the interest rate swap agreement shall be secured by Subordinated Wastewater Revenues and other assets pledged hereunder to the Bonds on a parity basis therewith and, in such event, the District shall pay to the Trustee for deposit in the Interest Fund, at the times and in the manner provided in the Indenture, the amounts to be paid under such interest rate swap agreement, as if such amounts were additional interest due on the Bonds to which such interest rate swap agreement relates, and the Trustee shall pay to the other party to the interest rate swap agreement, to the extent required thereunder, amounts deposited in the Interest Fund for the payment of interest on the Bonds with respect to which such agreement was entered into.

Additional Bonds; Parity Debt

The issuance of additional Wastewater Bonds was not initially limited by the Indenture. However, the District has covenanted pursuant to the Twelfth Supplemental Indenture that it will not issue any senior Wastewater Bonds in the future.

The District may issue Bonds and Parity Debt payable from Subordinated Wastewater Revenues and secured equally and ratably with Bonds previously issued, subject to the following specific conditions precedent to the issuance of any such additional Bonds or Parity Debt:

- (a) No Event of Default shall have occurred and then be continuing.
- (b) The aggregate principal amount of Bonds or Parity Debt shall not exceed any limitation imposed by law or by any Supplemental Indenture.
- (c) The District shall have placed on file with the Trustee a Certificate of the District certifying that the sum of: (1) the Subordinated Wastewater Revenues plus all amounts required

to be paid under the Wastewater Bond Resolution for principal, interest, reserve fund and any other debt service requirements on the Wastewater Bonds for any period of 12 consecutive months during the 18 months immediately preceding the date on which such additional Bonds or Parity Debt will become Outstanding; plus (2) 90% of the amount by which the District projects Subordinated Wastewater Revenues for such period of 12 months would have been increased had increases in rates, fees and charges during such period of 12 months been in effect throughout such period of 12 months; plus (3) 75% of the amount by which the District projects Subordinated Wastewater Revenues will increase during the period of 12 months commencing on the date of issuance of such additional Series of Bonds due to improvements to the Wastewater System under construction (financed from any source) or to be financed with the proceeds of such additional Series of Bonds, shall (4) have been at least equal to 1.1 times the amount of Maximum Annual Debt Service on all Wastewater Bonds, Bonds and Parity Debt then Outstanding and the additional Bonds or Parity Debt then proposed to be issued.

Refunding Bonds

Refunding Bonds may be authorized and issued by the District without compliance with the provisions described above under "Additional Bonds; Parity Debt," provided that Maximum Annual Debt Service on all Wastewater Bonds, Bonds and Parity Debt Outstanding following the issuance of such refunding Bonds is less than or equal to Maximum Annual Debt Service on all Wastewater Bonds, Bonds and Parity Debt Outstanding prior to the issuance of such refunding Bonds.

Covenants

Among other covenants the District has agreed as follows:

The District will not create any pledge, lien or charge upon any of the Subordinated Wastewater Revenues having priority over or having parity with the lien of the Bonds except only as described above. The District will not amend or change the Wastewater Bond Resolution in any manner which would permit the issuance of additional Wastewater Bonds in a greater principal amount than would have been permitted thereunder prior to such amendment or change or reduce the debt service percentage or coverage requirements contained therein. The District will not issue Wastewater Bonds pursuant to the Wastewater Bond Resolution in such amount as would cause the District to fail to be in compliance with the rate covenant described in the second succeeding paragraph hereof.

The District will not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the interest on the Bonds under Section 103 of the Code, if applicable. The District will not directly or indirectly use or permit the use of any proceeds of the Bonds or any other funds of the District, or take or omit to take any action that would cause the Bonds to be "arbitrage bonds" within the meaning of Section 148(a) of the Code, if applicable. To that end, the District will comply with all requirements of Section 148 of the Code to the extent applicable to the Bonds.

The District will, at all times while any of the Bonds remain Outstanding, fix, prescribe and collect rates, fees and charges in connection with the services and facilities furnished by the Wastewater System so as to yield Wastewater Revenues in each Fiscal Year sufficient so that the sum of the Subordinated Wastewater Revenues for such year plus all amounts required to be paid under the Wastewater Bond Resolution for such year for principal, interest, reserve fund and any other debt service requirements on the Wastewater Bonds shall be at least equal to 1.1 times the amount of Debt Service on all Wastewater Bonds, Bonds and Parity Debt Outstanding for such Fiscal Year.

The District will maintain and preserve the Wastewater System in good repair and working order at all times, and will operate the Wastewater System in an efficient and economical manner. Subject in each case to the condition that insurance is obtainable at rates deemed reasonable by the District and upon terms and conditions deemed reasonable by the District, the District will procure and maintain at all times: (a) insurance on the Wastewater System against such risks as and in such amounts as the District deems prudent taking into account insurance coverage for similar utilities, and (b) public liability insurance in such amounts as the District deems prudent taking into account insurance coverage for similar utilities.

Events of Default; Remedies

The following events are Events of Default under the Indenture:

- (a) default in the due and punctual payment of the principal or Redemption Price of any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, by declaration or otherwise, or default in the redemption from any Sinking Account of any Bonds in the amounts and at the times provided therefor;
- (b) default in the due and punctual payment of any installment of interest on any Bond when and as such interest installment shall become due and payable;
- (c) if the District shall fail to observe or perform any covenant, condition, agreement or provision in the Indenture on its part to be observed or performed, other than as referred to in subsection (a) or (b), for a period of sixty (60) days after written notice, specifying such failure and requesting that it be remedied, has been given to the District by the Trustee; except that, if such failure can be remedied but not within such sixty (60) day period and if the District has taken all action reasonably possible to remedy such failure within such sixty (60) day period, such failure shall not become an Event of Default for so long as the District shall diligently proceed to remedy the same in accordance with and subject to any directions or limitations of time established by the Trustee;
- (d) if any default shall exist under any agreement governing any Parity Debt and such default shall continue beyond the therein stated grace period, if any, with respect to such default;
- (e) if any default shall exist under the Wastewater Bond Resolution and such default shall continue beyond the therein stated grace period, if any, with respect to such default;
- (f) if the District files a petition in voluntary bankruptcy, for the composition of its affairs or for its corporate reorganization under any state or Federal bankruptcy or insolvency law, or makes an assignment for the benefit of creditors, or admits in writing to its insolvency or inability to pay debts as they mature, or consents in writing to the appointment of a trustee or receiver for itself;
- (g) if a court of competent jurisdiction shall enter an order, judgment or decree declaring the District insolvent, or adjudging it bankrupt, or appointing a trustee or receiver of the District, or approving a petition filed against the District seeking reorganization of the District under any applicable law or statute of the United States of America or any state thereof, and such order, judgment or decree shall not be vacated or set aside or stayed within 60 days from the date of the entry thereof; and

(h) if, under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the District or of the Subordinated Wastewater Revenues, and such custody or control shall not be terminated within 60 days from the date of assumption of such custody or control.

If an Event of Default shall occur and be continuing, the District is to immediately transfer to the Trustee all Subordinated Wastewater Revenues held by it and received thereafter and the Trustee shall apply all Subordinated Wastewater Revenues and any other funds then held or thereafter received by the Trustee under any of the provisions of the Indenture (except as otherwise provided in the Indenture) as follows and in the following order:

- (1) To the payment of any expenses necessary in the opinion of the Trustee to protect the interests of the Owners of the Bonds and Parity Debt, including the costs and expenses of the Trustee and the Bondholders in declaring such Event of Default, and payment of reasonable fees and expenses of the Trustee (including reasonable fees and disbursements of its counsel and other agents) incurred in and about the performance of its powers and duties under the Indenture;
- (2) To the payment of the whole amount of Bond Obligation then due on the Bonds and Parity Debt (upon presentation of the Bonds and Parity Debt to be paid, and stamping thereon of the payment if only partially paid, or surrender thereof if fully paid) subject to the provisions of the Indenture, with interest on such Bond Obligation, at the rate or rates of interest borne by the respective Bonds and Parity Debt, to the payment to the persons entitled thereto of all installments of interest then due and the unpaid principal or Redemption Price of any Bonds and Parity Debt which shall have become due, whether at maturity or by call for redemption, in the order of their due dates, with interest on the overdue Bond Obligation and Parity Debt at the rate borne by the respective Bonds and Parity Debt, and, if the amount available shall not be sufficient to pay in full all the Bonds and Parity Debt due on any date, together with such interest, then to the payment thereof ratably, according to the amounts of principal or interest or Accreted Value (plus accrued interest) due on such date to the persons entitled thereto, without any discrimination or preference.

In each and every such case during the continuance of such Event of Default, the Owners of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding shall be entitled, upon notice in writing to the District, to declare the principal of all of the Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable.

This provision, however, is subject to the condition that if, at any time after the principal of the Bonds shall have been so declared due and payable, the District shall pay to or shall deposit with the Trustee a sum sufficient to pay all principal on such Bonds matured prior to such declaration and all matured installments of interest (if any) upon all the Bonds, and the reasonable expenses of the Trustee, and any and all other defaults known to the Trustee (other than in the payment of principal of and interest on the Bonds due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Trustee, or provision deemed by the Trustee to be adequate shall have been made therefor, then, and in every such case, the Owners of not less than a majority in aggregate principal amount of the Bonds at the time Outstanding, by written notice to the District and to the Trustee, may, on behalf of the Owners of all the Bonds, rescind and annul such declaration and its consequences; but no such rescission and annulment shall extend to or shall affect any subsequent default, or shall impair or exhaust any right or power consequent thereon.

The Trustee is appointed (and the successive respective Owners of the Bonds, by taking and holding the same, shall be conclusively deemed to have so appointed the Trustee) to represent the Owners in the matter of exercising and prosecuting on their behalf such rights and remedies as may be available to such Owners under the provisions of the Bonds, the Indenture, the Act and applicable provisions of any other law. Upon any default or other occasion, giving rise to a right in the Trustee to represent the Bondholders, the Trustee may take such action as may seem appropriate and, upon the request in writing of Owners of not less than twenty-five percent (25%) in aggregate principal amount of Bonds then Outstanding, and upon being indemnified to its satisfaction therefor, shall proceed to protect or enforce its rights or the rights of such Owners by such appropriate actions as it shall deem most effectual to protect and enforce any such right.

No remedy conferred upon or reserved to the Trustee or to the Owners of the Bonds is intended to be exclusive of any other remedy or remedies, and each and every such remedy to the extent permitted by law, shall be cumulative and in addition to any other remedy given under the Indenture or now or hereafter existing at law or in equity or otherwise.

Amendments

The Indenture and the rights and obligations of the District, the Owners of the Bonds and the Trustee may be modified or amended at any time by a Supplemental Indenture, with the written consent of the Owners of a majority in the aggregate amount of Bonds then Outstanding. No such modification or amendment shall (a) extend the fixed maturity of any Bond or reduce the amount of principal thereof, or extend the time of payment or reduce the amount of any Mandatory Sinking Account Payment provided for the payment of any Bonds, or reduce the rate of interest thereon, or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the Owner of each Bond so affected, or (b) reduce the aforesaid percentage of Bond Obligation the consent of the Owners of which is required to effect any such modification or amendment, or permit the creation of any lien on the Subordinated Wastewater Revenues and other assets pledged under the Indenture, or deprive the Owners of the Bonds of the lien created by the Indenture on such Subordinated Wastewater Revenues and other assets, without the consent of the Owners of all of the Bonds then Outstanding.

The Indenture may also be modified or amended at any time with the written consents of each provider of a letter of credit or a policy of bond insurance for the Bonds, provided that at such time the payment of all the principal of and interest on all Outstanding Bonds shall be insured by a policy or policies of municipal bond insurance or payable under a letter of credit the provider of which shall be a financial institution or association having unsecured debt obligations rated, or insuring or securing other debt obligations rated on the basis of such insurance or letters of credit, rated not lower than the respective ratings on the Bonds by Moody's (if Moody's is then rating the Bonds) or Standard & Poor's (if Standard & Poor's is then rating the Bonds).

The Indenture and the rights and obligations of the District, of the Trustee and the Owners of the Bonds may also be modified or amended at any time by a Supplemental Indenture, without the consent of any Bondholders but only to the extent permitted by law and only for any one or more of the following purposes:

- (1) to add to the covenants and agreements of the District or to surrender any right or power reserved to or conferred upon the District;
- (2) to make such provisions for the purpose of curing any omission or ambiguity, or of curing or correcting any defective provision contained in the Indenture, or in regard to

questions arising under the Indenture, as the District may deem necessary or desirable, and which shall not materially and adversely affect the interests of the Owners of the Bonds;

- (3) to modify the Indenture in such manner as to permit qualification under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect, and to add such other terms, conditions and provisions as may be permitted by said act or similar federal statutes and which shall not materially and adversely affect the interests of the Owners of the Bonds;
- (4) to make modifications or adjustments necessary or desirable to provide for the issuance of Variable Rate Indebtedness, Capital Appreciation Indebtedness or Parity Debt, with such interest rate, payment, maturity and other terms as the District may deem desirable, subject to the provisions of the Indenture;
- (5) to provide for the issuance of Bonds in book-entry form or bearer form, provided that such provisions shall not materially and adversely affect the interest of the Owners of the Bonds;
- (6) if the District agrees in a Supplemental Indenture to maintain the exclusion of interest on a Series of Bonds from gross income for purposes of federal income taxation, to make such provisions as are necessary or appropriate to ensure such exclusion;
- (7) to provide for the issuance of an additional Series of Bonds pursuant to provisions of the Indenture; and
- (8) for any other purpose that does not materially and adversely affect the interests of the Owners of the Bonds.

Defeasance

Bonds may be paid by the District in any of the following ways:

- (a) by paying or causing to be paid the Bond Obligations of and interest on such Outstanding Bonds, as and when the same become due and payable;
- (b) by depositing with the Trustee, an escrow agent or other fiduciary, in trust, at or before maturity, money or securities in the necessary amount to pay or redeem such Outstanding Bonds; or
 - (c) by delivering to the Trustee, for cancellation by it, such Outstanding Bonds.

Upon the deposit with the Trustee, escrow agent or other fiduciary, in trust, at or before maturity, of money or securities in the necessary amount to pay or redeem any Outstanding Bond (whether upon or prior to its maturity or the redemption date of such Bond), provided that, if such Bond is to be redeemed prior to maturity, notice of such redemption shall have been given or provision satisfactory to the Trustee shall have been made for the giving of such notice, then all liability of the District in respect of such Bond shall cease, terminate and be completely discharged, provided that the Owner thereof shall thereafter be entitled to the payment of the principal of and premium, if any, and interest on the Bonds, and the District shall remain liable for such payment, but only out of such money or securities deposited with the Trustee as aforesaid for their payments.

The District may at any time surrender to the Trustee for cancellation by it any Bonds previously issued and delivered, which the District may have acquired in any manner whatsoever, and such Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired.

Whenever in the Indenture it is provided or permitted that there be deposited with or held in trust by the Trustee money or securities in the necessary amount to pay or redeem any Bonds, the money or securities so to be deposited or held may include money or securities held by the Trustee in the funds and accounts established pursuant to the Indenture and shall be:

- (a) lawful money of the United States of America in an amount equal to the principal amount of such Bonds and all unpaid interest thereon to maturity, except that, in the case of Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption shall have been given or provision satisfactory to the Trustee shall have been made for the giving of such notice, the amount to be deposited or held shall be the principal amount or Redemption Price of such Bonds and all unpaid interest thereon to the redemption date; or
- (b) Investment Securities described in clauses (i), (ii) or (v) of the definition thereof, the principal of and interest on which when due will, in the opinion of an independent certified public accountant delivered to the Trustee (upon which opinion the Trustee may conclusively rely), provide money sufficient to pay the principal or Redemption Price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Bonds to be paid or redeemed, as such principal or Redemption Price and interest become due, provided that, in the case of Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as required by the Indenture or provision satisfactory to the Trustee shall have been made for the giving of such notice; provided, in each case, that the Trustee shall have been irrevocably instructed (by the terms of the Indenture or by Request of the District) to apply such money to the payment of such principal or Redemption Price and interest with respect to such Bonds.

APPENDIX D

PROPOSED FORMS OF CO-BOND COUNSEL OPINION AND SPECIAL TAX COUNSEL OPINION

PROPOSED FORM OF CO-BOND COUNSEL OPINION

Upon the delivery of the Series 2017A Bonds, Norton Rose Fulbright US LLP, Los Angeles, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel, propose to render their final approving opinion with respect to the Series 2017A Bonds in substantially the following form:

[Closing Date]

East Bay Municipal Utility District Oakland, California

EAST BAY MUNICIPAL UTILITY DISTRICT
(Alameda and Contra Costa Counties, California)
WASTEWATER SYSTEM REVENUE/REFUNDING BONDS, SERIES 2017A

Ladies and Gentlemen:

We have acted as co-bond counsel to the East Bay Municipal Utility District (the "District") in connection with the issuance of its \$______ aggregate principal amount of Wastewater System Revenue/Refunding Bonds, Series 2017A (the "Series 2017A Bonds"). The Series 2017A Bonds are being issued pursuant to the Municipal Utility District Act (constituting Division 6 of the Public Utilities Code of the State of California, as amended), the Revenue Bond Law of 1941 as made applicable by Article 6a of Chapter 6 of Division 6 of the Municipal Utility District Act, and with respect to such portion of the Series 2017A Bonds issued to refund outstanding bonds of the District, Article 11 of Chapter 3 of Part 1 of Division 2 of Title 5 of the Government Code of the State of California, as amended (collectively, the "Act"), and a Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, by and between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented, including as amended and supplemented by a Nineteenth Supplemental Indenture, dated as of June 1, 2017, providing for the issuance of the Series 2017A Bonds (collectively, the "Indenture").

In our capacity as co-bond counsel, we have reviewed the Act, the Indenture, certifications of the District, the Trustee, and others, opinions of counsel to the District and the Trustee, and such other documents, opinions and instruments as we deemed necessary to render the opinions set forth herein. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Indenture.

We have assumed the genuineness of all documents and signatures presented to us. We have not undertaken to verify independently, and have assumed, the accuracy of the factual matters represented, warranted or certified in the documents. Furthermore, we have assumed compliance with all covenants and agreements contained in the Indenture. In addition, we call attention to the fact that the rights and obligations under the Series 2017A Bonds and the Indenture are subject to bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other similar laws affecting

creditors' rights, to the application of equitable principles, to the possible unavailability of specific performance or injunctive relief, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California. Furthermore, the imposition of certain fees and charges by the District relating to the Wastewater System may be subject to the provisions of Articles XIIIC and XIIID of the California Constitution.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions:

- 1. The Series 2017A Bonds constitute the valid and binding special limited obligations of the District.
- 2. The Indenture has been duly authorized, executed and delivered by, and constitutes the valid and binding obligation of, the District. The Indenture creates a valid pledge, to secure the payment of the principal of and interest on the Series 2017A Bonds, of the Subordinated Wastewater Revenues of the District, and certain other amounts held by the Trustee under the Indenture, as and to the extent set forth in the Indenture and subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein.
- 3. The Series 2017A Bonds are special limited obligations of the District and are payable exclusively from and are secured by a pledge of Subordinated Wastewater Revenues of the District and certain other amounts held by the Trustee under the Indenture, as and to the extent set forth in the Indenture and subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein. The general fund of the District is not liable, and neither the credit nor taxing power of the District is pledged, for the payment of the Series 2017A Bonds or the interest thereon.
- 4. Other bonds and parity debt of the District have been and may from time to time hereafter be issued under the Indenture which are payable from Subordinated Wastewater Revenues on a parity basis with the Series 2017A Bonds.

We express no opinion as to any federal, state or local tax consequences of the ownership or disposition of the Series 2017A Bonds or the receipt of interest thereon.

Our opinions are based on existing law, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may hereafter come to our attention or to reflect any changes in any law that may hereafter occur or become effective. Moreover, our opinions are not a guarantee of result and represent our legal judgment based upon our review of existing law that we deem relevant to such opinions and in reliance upon the representations and covenants referenced above.

No opinion is expressed herein on the accuracy, completeness or sufficiency of the Official Statement or other offering material relating to the Series 2017A Bonds.

Respectfully submitted,

Respectfully submitted,

PROPOSED FORM OF OPINION OF SPECIAL TAX COUNSEL

Upon the delivery of the Series 2017A Bonds, Orrick, Herrington & Sutcliffe LLP, Special Tax Counsel to the Initial Purchaser, proposes to render its tax opinion with respect to the Series 2017A Bonds in substantially the following form:

[Closing Date]

East Bay Municipal Utility District Oakland, California

East Bay Municipal Utility District

<u>Wastewater System Revenue/Refunding Bonds, Series 2017A</u>

(Special Tax Opinion)

Ladies and Gentlemen:

We have acted as special tax counsel in connection with the issuance by the East Bay Municipal Utility District (the "District") of \$_____ aggregate principal amount of Wastewater System Revenue/Refunding Bonds, Series 2017A (collectively, the "Bonds"). The Bonds are being issued pursuant to a Wastewater System Subordinated Revenue Bond Indenture, dated as of April 1, 1990, as supplemented by supplemental indentures, including a Nineteenth Supplemental Indenture, dated as of June 1, 2017 (collectively, the "Indenture"), between the District and First Interstate Bank of California, which has been succeeded by The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"). Capitalized terms not otherwise defined herein shall have the meanings set forth in the Indenture.

In such connection, we have reviewed the Indenture, the Tax Certificate of the District, dated the date hereof and relating to the Bonds (the "Tax Certificate"), opinions of counsel to the Trustee and the District, certificates of the District, the Trustee and others, and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein. In particular, we have relied on the opinion of Norton Rose Fulbright US LLP and Curls Bartling P.C., co-bond counsel to the District (the "Bond Counsel Opinion"), regarding, among other matters, the validity of the Bonds. In rendering the opinions expressed herein, we expressly have relied on the Bond Counsel Opinion that, among other matters, the Bonds are valid and binding obligations of the District. We call attention to the fact that the interest on the Bonds may not be excluded from gross income for federal income tax purposes or exempt from State of California personal income taxes if the Bonds are not valid, binding and enforceable in accordance with their terms.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after the date hereof. We have not undertaken to determine, or to inform any person, whether any such actions are taken or omitted or events do occur or any other matters come to our attention after the date hereof. Accordingly, this opinion is not intended to, and may not, be relied upon in connection with any such actions, events or matters. Our engagement with respect to the Bonds has concluded with their issuance, and we disclaim any obligation to update this letter. We have assumed the genuineness of all documents and signatures presented to us (whether as originals or copies) and the due and legal execution thereof by, and validity against, all parties. We have assumed, without undertaking to verify, the accuracy of the factual matters represented, warranted or

certified in the documents, and of the legal conclusions contained in the opinions, referred to in the second paragraph hereof. Furthermore, we have assumed compliance with all covenants and agreements contained in the Indenture and the Tax Certificate, including (without limitation) covenants and agreements compliance with which is necessary to assure that future actions, omissions or events will not cause the interest on the Bonds to be included in gross income for federal income tax purposes. We call attention to the fact that the rights and obligations under the Bonds, the Indenture and the Tax Certificate and their enforceability may be subject to bankruptcy, insolvency, receivership, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against municipal utility districts in the State of California. Our advice did not include financial advice or non-legal advice. Finally, we undertake no responsibility for the accuracy, completeness or fairness of the Official Statement or other offering material relating to the Bonds and express no opinion with respect thereto.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and is exempt from State of California personal income taxes. Interest on the Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although we observe that it is included in adjusted current earnings when calculating corporate alternative minimum taxable income. We express no opinion regarding other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of such interest on, the Bonds.

Faithfully yours,

ORRICK, HERRINGTON & SUTCLIFFE LLP

APPENDIX E

DTC AND THE BOOK-ENTRY ONLY SYSTEM

The information in this Appendix E concerning The Depository Trust Company, New York, New York ("DTC"), and DTC's book-entry system has been obtained from DTC and the District and the Trustee take no responsibility for the completeness or accuracy thereof. The District and the Trustee cannot and do not give any assurances that DTC, Direct Participants (as defined below) or Indirect Participants (as defined below) will distribute to the Beneficial Owners (a) payments of interest, principal or premium, if any, with respect to the Series 2017A Bonds, (b) certificates representing ownership interest in or other confirmation of ownership interest in the Series 2017A Bonds, or (c) redemption or other notices sent to DTC or Cede & Co., its nominee, as the registered owner of the Series 2017A Bonds, or that they will do so on a timely basis, or that DTC, Direct Participants or Indirect Participants will act in the manner described in this Appendix E. The District and the Trustee are not responsible or liable for the failure of DTC or any DTC Direct or Indirect Participant to make any payment or give any notice to a Beneficial Owner with respect to the Series 2017A Bonds or an error or delay relating thereto. The current "Rules" applicable to DTC are on file with the Securities and Exchange Commission and the current "Procedures" of DTC to be followed in dealing with DTC's Direct and Indirect Participants are on file with DTC.

DTC will act as securities depository for the Series 2017A Bonds. The Series 2017A Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the Series 2017A Bonds, in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to Direct and Indirect Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com. The information on such website is not incorporated herein by reference.

Purchases of Series 2017A Bonds under the DTC book-entry system must be made by or through Direct Participants, which will receive a credit for the Series 2017A Bonds on DTC's records. The

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ownership interest of each actual purchaser of each Series 2017A Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants" records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2017A Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2017A Bonds, except in the event that use of the book-entry system for the Series 2017A Bonds is discontinued.

To facilitate subsequent transfers, all Series 2017A Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Series 2017A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2017A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2017A Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Series 2017A Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2017A Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Series 2017A Bond documents. For example, Beneficial Owners of the Series 2017A Bonds may wish to ascertain that the nominee holding the Series 2017A Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series 2017A Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2017A Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the District as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2017A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal of, premium, if any, and interest on the Series 2017A Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants" accounts upon DTC's receipt of funds and corresponding detail information from the District or the Trustee, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Direct or Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee, or the District, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal of, premium, if any, and interest on the Series 2017A Bonds to Cede & Co. (or such other nominee as may be requested by an

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authorized representative of DTC) is the responsibility of the District or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Series 2017A Bonds at any time by giving notice to the Trustee and the District. Under certain circumstances, in the event that a successor depository is not obtained, Series 2017A Bond certificates are required to be printed and delivered.

The District may decide to discontinue use of the system of book-entry transfers for the Series 2017A Bonds through DTC (or a successor securities depository). In that event, Series 2017A Bond certificates will be printed and delivered as provided in the Indenture. In addition, the following provisions would apply: the principal or redemption price of the Series 2017A Bonds will be payable upon presentation thereof, at the principal corporate trust office of the Trustee, in San Francisco, California; interest on the Series 2017A Bonds will be payable by check mailed on each interest payment date to the registered owners thereof as shown on the registration books of the Trustee as of the close of business on the 15th day of the calendar month immediately preceding the applicable interest payment date (the "record date"), except that in the case of an owner of \$1,000,000 or more in aggregate principal amount of Series 2017A Bonds, upon written request of such owner to the Trustee received at least 10 days prior to the record date for the payment of interest, specifying the account or accounts to which such payment shall be made (which request shall remain in effect until revoked by such owner in a subsequent writing delivered to the Trustee), such interest shall be paid in immediately available funds by wire transfer to such account or accounts on the following interest payment date; and the Series 2017A Bonds will be transferable and exchangeable on the terms and conditions provided in the Indenture.

The information in this Appendix E concerning DTC and DTC's book-entry system has been obtained from sources the District believes to be reliable, but the District takes no responsibility for the accuracy thereof.

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APPENDIX F

FORM OF CONTINUING DISCLOSURE AGREEMENT

82500310.4 F-1

APPENDIX G OFFICIAL NOTICE OF SALE

82500310.4 G-1

APPENDIX A

THE EAST BAY MUNICIPAL UTILITY DISTRICT

(THE WASTEWATER SYSTEM)



The East Bay Municipal Utility District occupies 332 square miles of the San-Francisco-Oakland metropolitan region. The Wastewater System serves approximately 685,000 persons in an area designated as Special District No. 1, which covers approximately 88 square miles primarily within Alameda County.

EAST BAY MUNICIPAL UTILITY DISTRICT WASTEWATER SYSTEM (SPECIAL DISTRICT NO. 1)

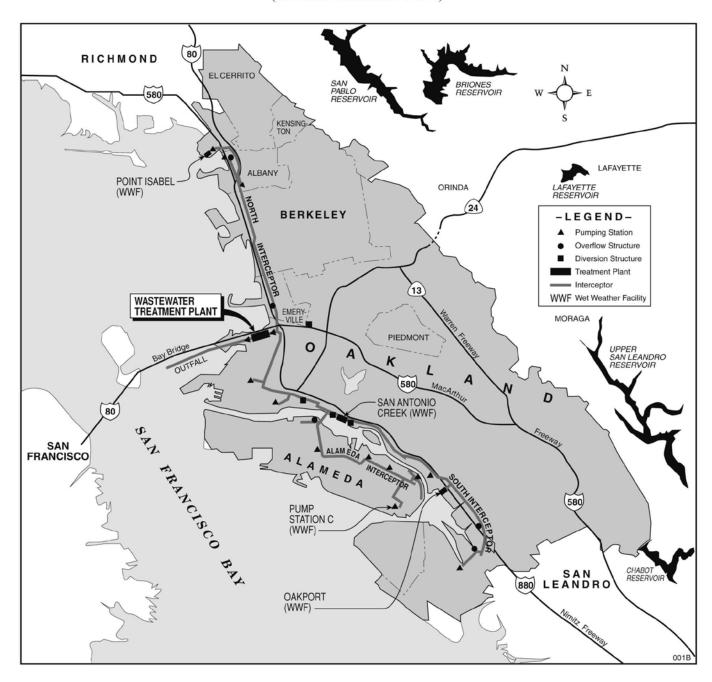


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THE DISTRICT

Organization

In May 1923, voters in cities along the eastern shore of the San Francisco Bay located in portions of Alameda and Contra Costa Counties (known throughout the San Francisco Bay Area as the "East Bay") elected to create the East Bay Municipal Utility District (the "District") under the provisions of the Municipal Utility District Act. Under the Municipal Utility District Act, municipal utility districts are empowered to acquire, construct, own, operate or control works for supplying the district and public agencies in the territory of the district with light, water, power, heat, transportation, telephone service or other means of communications, means for the collection, treatment or disposition of garbage, sewage or refuse matter, and public recreation facilities appurtenant to its reservoirs and may do all things necessary and convenient to the full exercise of powers granted in the Municipal Utility District Act. The District presently exercises only those functions relating to water supply, power generation and recreational facilities through its Water System, and sewerage and wastewater interception, treatment and disposal and power generation through its Wastewater System, within an area known as Special District No. 1. Special District No. 1 covers only a portion of the service area of the District. The District presently does not intend to exercise other functions. Such other functions and the related facilities, if exercised, would not constitute part of the Water System or the Wastewater System.

District Board

The District, a public agency, is governed by an elected seven-member Board of Directors (the "Board" or "District Board") which determines such matters as rates and charges for services, approval of contracts and District policy. Voters elect directors by ward to four-year terms. There are seven wards which together cover the entire service area of the District. Each year, the Board elects from among its members persons to serve as Board officers (President and Vice President). The current members of the District Board have an average service tenure of approximately 17 years. Each of the multi-term Board members has served one or more years as an officer of the Board and has chaired one or more of the Board's standing committees that review financial, long-range planning, and legislative matters. The following persons currently serve on the Board:

Lesa R. McIntosh has served on the Board since 1999 and represents Ward 1, which includes the Contra Costa County cities of Crockett, Hercules, Rodeo and San Pablo; portions of Richmond and Pinole, and the communities of North Richmond and Selby. Ms. McIntosh is currently President of the Board. She also currently serves as the chair of the District's Legislative/Human Resources Committee. Ms. McIntosh also represents the District on the Special Districts Association of Contra Costa County and is also serving as an elected member of the ACWA Region 5 board. She served on the 2014 ACWA Federal Affairs Committee. Ms. McIntosh is a member of the Contra Costa County Bar Association, the Charles Houston Bar Association, NAACP – Richmond Chapter, Black Women Lawyers of Northern California, and Black Women Organized for Political Action. Ms. McIntosh is an attorney currently specializing in business, estate planning and probate. She has a Bachelor of Science degree in Political Science from the University of California, Berkeley and a law degree from John F. Kennedy University. Ms. McIntosh's current term expires on December 31, 2020.

William B. Patterson has served on the Board since 1997 and represents Ward 6, which includes portions of Oakland, including East Oakland and the area south of Park Boulevard/5th Avenue to the San Leandro city boundary, in Alameda County. Mr. Patterson is currently Vice President of the Board. Mr. Patterson represents the District on the boards for the Upper Mokelumne River Watershed Authority and the Freeport Regional Water Authority. Mr. Patterson has served as a

member of the Oakland Workforce Investment Board. He retired several years ago, after working for many years as the City of Oakland Manager of Parks and Recreation. Mr. Patterson has Bachelor's and Master's degrees from San Francisco State University and a Social Services Certificate from the University of California, Berkeley. His current term expires on December 31, 2020.

John A. Coleman has served on the Board since 1990 and represents Ward 2, which includes the Contra Costa County cities of Alamo, Lafayette and Walnut Creek, the Town of Danville, the communities of Blackhawk and Diablo, and portions of Pleasant Hill and San Ramon. Mr. Coleman represents the District on the governing boards of the Upper Mokelumne River Watershed Authority (for which he currently serves as Chair), the Freeport Regional Water Authority and the DSRSD/EBMUD Recycled Water Authority (DERWA). Mr. Coleman is immediate past president of the Association of California Water Agencies (ACWA) board of directors, and serves as a board member of Contra Costa Leadership Council and as a member of the San Francisco Bay Restoration Authority Advisory Committee. He is also a past president of the California Association of Sanitation Agencies, a past Chair of ACWA's Federal Affairs Committee and a past Chair of ACWA's California Finance Water Task Force. Mr. Coleman is employed as the Chief Executive Officer of the Bay Planning Coalition, which represents maritime and shoreline interests and issues in northern California. He has a Bachelor of Science degree in Natural Resources from the University of California, Berkeley and a certificate in management from the University of Pacific School of Business and Public Administration. His current term expires on December 31, 2018.

Andy Katz has served on the Board since 2006 and represents Ward 4, which includes Albany, Berkeley, Emeryville and North Oakland in Alameda County, and El Cerrito and Kensington in Contra Costa County. Mr. Katz is employed as an attorney and public health advocate for Breathe California, and is a former Chair of Sierra Club California. Prior to his election to the District Board, he served for five years as a member of the City of Berkeley Zoning Adjustments Board. Mr. Katz has a Bachelor of Arts degree and a Master of City Planning degree from the University of California, Berkeley, and a law degree from Santa Clara University. His current term expires on December 31, 2018.

Doug A. Linney has served on the Board since 2000 and represents Ward 5, which includes the Alameda County cities of Alameda and San Lorenzo, the West Oakland and Oakland Airport Area, and a portion of San Leandro. He is active in a number of community and environmental organizations, including the California League of Conservation Voters and the California Interfaith Power and Light. Mr. Linney is employed as President of The Next Generation, a public relations firm providing services that emphasize achieving environmental protection. Mr. Linney has a Bachelor of Science degree in Environmental Science and Public Policy from the University of California, Davis. His current term expires on December 31, 2020.

Frank G. Mellon has served on the Board since 1994 and represents Ward 7, which includes the areas of Castro Valley, communities of Cherryland and Fairview; portions of San Leandro and Hayward in Alameda County, and a portion of San Ramon in Contra Costa County. Mr. Mellon also currently serves on the District's Retirement Board. Mr. Mellon represents the District on the governing board of the DSRSD/EBMUD Recycled Water Authority (DERWA) and on the Special District Association of Alameda County. Mr. Mellon is currently a consultant specializing in human resources and labor relations and has taught labor law in the California State University East Bay Human Resources Certificate Program. Mr. Mellon has a Bachelor of Arts degree in Management from the University of Hawaii and a Master's Degree in Business Administration from St. Mary's College in Moraga. His current term expires on December 31, 2018.

Marguerite Young was elected to the Board in 2014 and represents Ward 3, which includes the City of Piedmont and a portion of the City of Oakland in Alameda County, and the Contra Costa County cities of Orinda and El Sobrante, the Town of Moraga, and portions of Pinole and Richmond. She also currently serves on the District's Retirement Board. Ms. Young is currently the Corporate Responsibility Director and Senior Policy Analyst for the Service Employees International Union (SEIU) Capital Stewardship Program. Ms. Young was co-chair of the CALFED Bay-Delta Program's Water Quality Committee, which instigated regional cooperation among water agencies to address drinking water quality issues related to Bay-Delta water supplies. As California Director of Clean Water Action, her work also included service as an appointed member of California's Source Water Assessment Advisory Committee, the United States Environmental Protection Agency ("USEPA") Federal Advisory Committee on the Multiple Disinfection By-product Rule, and California's Recycled Water Task Force. She cofounded the League of Conservation Voters-East Bay and is a former board member of Friends of the River. Ms. Young has a Bachelor of Science degree in Natural Resource Economics from the University of California, Berkeley. Her current term expires on December 31, 2018.

District Management

Alexander R. Coate joined the District in 1993 and was appointed General Manager in 2011. Mr. Coate has 30 years of experience with public agencies, engineering consulting firms, research and law. He has worked for the District for more than 23 years. Prior to his appointment as General Manager, he was Director of Water and Natural Resources with responsibility for water supply planning, water rights, and watershed management including recreation and fisheries. Mr. Coate is a member of the American Water Works Association and the Association of California Water Agencies. He currently serves on the boards of the California Urban Water Agencies, the California WateReuse Association, the Western Urban Water Coalition and the Water Research Foundation. Mr. Coate has a Bachelor's degree in Neurobiology and a Master's degree in Civil Engineering, both from the University of California, Berkeley.

Craig S. Spencer joined the District in 1995 and was appointed General Counsel in 2015. Previous to his current appointment, Mr. Spencer was Assistant General Counsel at the District and previously served as Chief Trial Attorney. Before joining the District, he was a partner at the law firm of Hassard Bonnington in San Francisco. Mr. Spencer has over 22 years of experience in public law. He has a Bachelor's degree in Economics from the University of California, Santa Barbara and a law degree from Southern Methodist University.

Sophia D. Skoda joined the District in 2006 and was appointed Director of Finance in 2015. Prior to her appointment as Director of Finance, Ms. Skoda served as Treasury Manager. In addition, Ms. Skoda has previously served as a Senior Civil Engineer for the District, in which position she was responsible for managing all aspects of the District's resource recovery program. Before joining the District, Ms. Skoda spent nine years with consulting firms providing a range of financial consulting services to water and wastewater utility clients throughout California. She has a Bachelor of Science degree in Civil Engineering from Stanford University and a Master's degree in Civil Engineering from the University of California, Berkeley.

Xavier J. Irias joined the District in 1986 and was appointed Director of Engineering and Construction in 2006. Prior to that appointment, he held progressively more responsible positions managing engineering design and engineering services, and he has over 30 years of experience in the engineering field. Mr. Irias has a Bachelor of Science degree in Civil Engineering from the University of California, Berkeley.

Richard G. Sykes joined the District in 1989 and was appointed Director of Water and Natural Resources in 2011. Mr. Sykes has held progressively more responsible positions over that time; he has broad knowledge of the District's operations and is very experienced in water quality and regulatory issues. He has a Bachelor's degree in Conservation of Natural Resources and English and a Master's degree in Environmental Engineering from the University of California, Berkeley.

Michael J. Wallis joined the District in 1985 and was appointed Director of Operations and Maintenance in 1996. Prior to his current appointment Mr. Wallis held progressively more responsible positions in the District's Wastewater Department, and served as Director of Wastewater for several years. Mr. Wallis has over 37 years of water and wastewater related experience. He serves on the Board of Directors for the Association of Metropolitan Water Agencies and currently holds the position of Secretary. He has a Bachelor of Science degree and a Master's degree in Civil Engineering from North Carolina State University.

Eileen M. White joined the District in 1987 and was appointed Director of Wastewater in 2017. Prior to that appointment, she held progressively more responsible positions managing the operations of the water system and managing engineering design and construction projects in the Wastewater and Water Departments. Prior to joining the District, Ms. White worked as a design engineer for Pacific Gas and Electric Company. She has over 30 years of experience in the engineering field. Ms. White has a Bachelor of Science degree in Civil Engineering from the University of California, Berkeley and is a licensed Civil Engineer in California.

Rischa S. Cole joined the District in 1997 and was appointed Secretary of the District in March 2017. Ms. Cole has served in a variety of lead administrative roles at the District during her career including Executive Assistant II in the Office of the Secretary and most recently as Assistant to the General Manager. Ms. Cole received her Bachelor of Science degree in Business Administration from California State University, East Bay. She has a Certificate of Completion in Advanced Coursework for the California Special Districts Association's Special District Board Secretary/Clerk Program and is an Associate Member of the International Institute of Municipal Clerks.

D. Scott Klein joined the District in 1992 and was appointed Controller in 2003. He has over 33 years of experience in the accounting field. Prior to his appointment, he held progressively more responsible positions in the District's Accounting division. He also chairs the State Controller's Office of California 7-member Advisory Committee on Financial Reporting. Mr. Klein has a Bachelor of Science degree in Industrial Relations and a Bachelor of Arts degree in Accounting from San Francisco State University, a Master's degree in Finance from California State University Hayward, and holds an active accreditation as a Certified Management Accountant.

Dari Barzel joined the District in 2013 and was appointed Treasury Manager in 2016. Prior to her appointment as Treasury Manager, Ms. Barzel served as Principal Management Analyst (Debt Administrator) for the District. She has over 27 years of experience in public finance, including over 13 years as a rating analyst in the Public Finance Department of Moody's Investors Service. Ms. Barzel has a Bachelor of Arts degree in English from Barnard College and a Master's degree in Business Administration (Finance concentration) from Columbia University. She is a past President of the California Society of Municipal Analysts and a past member of the Board of the National Federation of Municipal Analysts.

Travis George joined the District in 2016 as the District's Debt Administrator. Prior to this role, Mr. George was a rating analyst in the Public Finance Department of Moody's Investors Service. While at Moody's, he covered local government issuers in all of the western states, with a

particular focus on public utilities. Prior to this, Mr. George held positions in the finance departments of Con Edison Company of New York and Bonneville Power Administration. Mr. George has a Bachelor of Arts degree in Economics from Portland State University and Master's degree in Public Administration and Policy from New York University.

Employees and Employee Relations

As of January 1, 2017, the District had 1,601 (full-time equivalent) employees in the Water System and 249 (full-time equivalent) employees in the Wastewater System.

The District has four unions representing approximately 1,705 workers out of a total full-time equivalent workforce of 1,850 employees: Local 2019 of the American Federation of State, County and Municipal Employees ("AFSCME") represents white collar workers including professionals; Local 444 of AFSCME represents blue collar workers; Local 21, International Federation of Professional and Technical Engineers represents supervisory employees; and Local 39, International Union of Operating Engineers represents water treatment/distribution workers.

Locals 2019, 444, 21 and 39 are each operating under a Memorandum of Understanding (collectively, "MOUs"), approved by the District Board in 2013. Each of the current MOUs expired on April 16, 2017. The District and the labor unions are continuing to negotiate successor MOUs. Until successor contracts are executed, the terms of the expired MOUs will continue to govern. [monitor for update] The MOUs are comprehensive in scope and provide for binding arbitration for the resolution of grievances. The District has not had a strike or work stoppage since 1985.

For a discussion of the District Employees' Retirement System, see "WASTEWATER SYSTEM FINANCES – Employees' Retirement System."

Service Area

Originally formed to include nine cities covering 92.6 square miles, the District has grown by more than 450 separate annexations to a present area of 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 on the north to and including San Lorenzo on 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 51% of the combined population of Alameda County and Contra Costa County. Approximately two-thirds of the population within the District's service area resides in the cities of Alameda, Berkeley, Oakland, San Leandro, Richmond and Walnut Creek.

The Municipal Utility District Act was amended in 1941 to enable formation of special districts for wastewater service provision. In 1944, voters elected to form the District's Special District No. 1 to treat wastewater released into the San Francisco Bay. The District's Wastewater System presently serves approximately 685,000 people in an 88-square-mile area of the two counties along the east shore of the San Francisco Bay, extending from Richmond on the north, southward to Oakland's border with San Leandro. Domestic, commercial and industrial wastewater is treated for the six participating cities of Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont, and for the Stege Sanitary District (which includes El Cerrito, Kensington and part of Richmond) (collectively, the "participating agencies"). Each of these participating agencies operates a sewer collection system that discharges into the District's intercepting sewers. In addition to treating waste received through its interceptors from the participating agencies' sewer collection systems, the District accepts high-organic waste streams delivered in trucks.

The wastes include domestic waste from septic tanks, fat, oil and grease from restaurants and other food and drink wastes. The District's trucked-waste program continues to expand in the scope of wastes accepted. The District anaerobically digests the high-organic wastes with municipal solids to create renewable energy. This energy is used to power the wastewater treatment facility, with excess energy sold to the Port of Oakland under a power purchase agreement.

Taxation of the District

All property of the District within the District's boundaries generally is exempt from property taxation. District-owned land outside of the District's boundaries is taxable, but improvements constructed on that land by the District are not taxable. As a public agency, the District is exempt from the payment of State of California (the "State") income taxes and federal income taxes.

THE WASTEWATER SYSTEM

General

The District's Wastewater System provides regional wastewater conveyance, treatment, and disposal services for an area within the District designated as Special District No. 1. Special District No. 1, a separate district within the District governed by the Board, was established in 1944 and is administered by the District's Wastewater Department. The Wastewater System began operations in 1951.

Special District No. 1 intercepts, treats and disposes of wastewater within its wastewater service area, which includes the six participating cities of Alameda, Albany, Berkeley, Emeryville, Oakland and Piedmont, and the Stege Sanitary District. Each of the participating agencies maintains its own separate sanitary sewer system (*i.e.*, a system designed to transport sewage separate from the pipe system constructed to convey storm water runoff directly to surface waters), and is responsible for collecting and conveying wastewater to the District interceptors. The participating agencies and Special District No. 1 operate under separate National Pollutant Discharge Elimination System ("NPDES") permits issued by the Regional Water Quality Control Board San Francisco Bay Region (the "Regional Board") and are separately responsible for failures of their own collection, conveyance and/or disposal systems.

In addition to treating wastewater received from the participating agencies through their collection systems, the District also treats high-organic waste streams delivered to District facilities in trucks through its resource recovery program. The trucked wastes include domestic waste from septic tanks, industrial and commercial process wastes, fat, oil and grease from restaurants and other food and drink wastes. See "– Resource Recovery" below.

Table 1 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 2012 to 2016.

Table 1
SEVEN LARGEST CITIES IN DISTRICT WASTEWATER SYSTEM SERVICE AREA ALAMEDA, CONTRA COSTA COUNTIES AND CALIFORNIA
Population Trends⁽¹⁾

	2012	2013	2014	2015	2016
Oakland	400,281	408,822	413,626	419,539	422,856
Berkeley	115,199	116,074	117,399	118,923	119,915
Alameda	75,210	76,074	76,785	77,657	79,277
El Cerrito	23,748	23,803	23,980	24,132	24,378
Albany	18,625	18,668	18,682	18,841	18,893
Piedmont	10,844	10,921	11,018	11,138	11,219
Emeryville	10,361	10,592	10,822	10,967	11,721
Total Seven Cities	654,268	664,954	672,312	681,197	688,259
Alameda County	1,543,027	1,566,339	1,587,637	1,610,765	1,627,865
Contra Costa County	1,069,977	1,083,340	1,097,172	1,111,143	1,123,429
California	37,881,357	38,239,207	38,567,459	38,907,642	39,255,883

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 – 2011-2016, with 2010 Census Benchmark.* Sacramento, California, May 2016.

Wastewater Facilities

The District's existing Wastewater System facilities consist of, among other things, the District's Main Wastewater Treatment Plant in Oakland near the entrance of the San Francisco-Oakland Bay Bridge (the "Main Wastewater Treatment Plant") and interceptors and pumping stations for the conveyance of wastewater collected by the participating agencies to the Main Wastewater Treatment Plant, as well as certain wet weather facilities (the "Wet Weather Facilities") which are operated during wet weather events when flows from the participating agencies' collections systems exceed the capacity that can be treated at the Main Wastewater Treatment Plant.

The District's interceptors consist of 29 miles of reinforced concrete gravity pipeline, ranging from 18 inches to 9 feet in diameter, and 8 miles of pressure pipeline from pump stations. The interceptors collect wastewater from approximately 1,700 miles of public sewers owned and operated by the participating agencies. Fifteen pumping stations, ranging in capacity from 1.5 to 60 million gallons per day ("MGD"), lift wastewater throughout the interceptors as it travels to the District's Main Wastewater Treatment Plant for treatment prior to discharge of the treated effluent into the San Francisco Bay. The Main Wastewater Treatment Plant provides secondary treatment for permitted dry weather flow of up to 120 MGD and a maximum flow of 168 MGD during wet weather storm events. Primary treatment can be provided at the Main Wastewater Treatment Plant for a peak of up to 320 MGD, with peak influent hydraulic capacity of 415 MGD when utilizing an on-site 11 million gallon storage basin, a component of the District's Wet Weather Facilities, which is used to temporarily store peak storm flows in excess of the permitted limits for treatment at the Main Wastewater Treatment Plant after flows subside.

Primary treatment removes floating material, oils and greases, sand and silt and organic solids heavy enough to settle in water. Secondary treatment biologically removes most of the suspended and dissolved organic and chemical impurities that would otherwise reduce the oxygen content of the waters of the San Francisco Bay if allowed to decompose naturally. The treatment steps are pre-chlorination, screening, grit removal, primary sedimentation, secondary treatment using high-purity, oxygen-activated sludge, final clarification, biosolids digestion, dewatering and beneficial use of biosolids through land application at non-edible crop farm sites or alternative daily cover at landfills. The treated effluent is then disinfected, dechlorinated and discharged one mile off the East Bay shore through a deep-water outfall into San Francisco Bay.

The annual average daily flow through the District's Main Wastewater Treatment Plant over the last five years has been approximately 58 MGD. See "— Wastewater Flows" below. Peak daily flows from the participating agencies' collection systems to the District's interceptors increase significantly during wet weather primarily due to inflow and infiltration. Inflow is water that enters a sewer system from sources such as roof leaders, yard drains, area drains, manhole covers, and cross-connections between storm sewers and sanitary sewers. Infiltration is water that enters the system from the ground (particularly when saturated due to storms or flooding) through such means as defective pipes, pipe joints, connections or manholes. Although the participating agencies' wastewater collection systems are all separate sanitary systems designed to transport only sewage (with a separate stormwater system in place to discharge stormwater runoff), all sewer systems have some degree of inflow and infiltration of surface water and groundwater.

District facilities designed to address increased flows during wet weather periods include three Wet Weather Facilities (Oakport, San Antonio Creek and Point Isabel), as well as five overflow structures located at Temescal Creek, Oakland Inner Harbor (Alice Street), Oakland Inner Harbor (Webster Street), Elmhurst Creek and San Leandro Creek.

The 158-MGD Oakport Wet Weather Facility, completed in 1990, provides primary treatment for peak wet weather flow diverted along the District's South Interceptor. Following primary treatment, effluent from this facility is currently disinfected and discharged to East Creek Slough in the lower San Francisco Bay. The 100-MGD Point Isabel Wet Weather Facility, completed in 1993, accepts peak wet weather flows from the District's North Interceptor, for primary treatment after which the effluent from this facility is currently disinfected and discharged to the central San Francisco Bay. The 51-MGD San Antonio Creek Wet Weather Facility, completed in 1996, provides preliminary treatment to wastewater diverted from the District's South Interceptor. The effluent from this facility is currently disinfected and discharged to the Oakland Inner Harbor, in lower San Francisco Bay. As described herein, the operations of the District's Wet Weather Facilities are subject to a NPDES permit issued by the Regional Board which prohibits the District from discharging flows from its Wet Weather Facilities to the San Francisco Bay. See "– Regulatory Matters – *Litigation Relating to the District's Wet Weather Facilities NPDES Permit*" below.

The Wet Weather Facilities also serve as storage facilities. After a wet weather event, when the Main Wastewater Treatment Plant again has available capacity, wastewater flows stored in these facilities can be returned to the interceptors for transport to the Main Wastewater Treatment Plant for secondary treatment prior to discharge.

The District's Wet Weather Facilities increase the Wastewater System's wet weather capacity to 724 MGD.

During significant wet weather events, when the carrying capacity of the interceptors and/or the treatment capacity of the Main Wastewater Treatment Plant is exceeded or in the event of a major

Wastewater System failure, the five overflow structures control the location of overflows and allow for the discharge of untreated sewage into the San Francisco Bay when necessary to avoid sanitary system overflows occurring in the collection system or at the Main Wastewater Treatment Plant (a sanitary sewer overflow occurs when wastewater comes out of the sanitary sewer system, including when it enters a street, residence, business or yard. This is usually caused by blockage, failure or lack of capacity).

See also "- Regulatory Matters" for a discussion of regulatory framework under which the District's wastewater facilities operate, including its Wet Weather Facilities, and certain litigation relating thereto.

Wastewater Flows

Table 2 presents a ten-year record of wastewater flows through the Main Wastewater Treatment Plant, expressed as the average daily flow for each Fiscal Year.

Table 2
AVERAGE DAILY WASTEWATER FLOW
(million gallons per day)

Fiscal Year Ended June 30	Flow
2007	67
2008	69
2009	67
2010	68
2011	70
2012	62
2013	61
2014	56
2015	55
2016	56

Source: The District.

Wastewater Source Control Program

The District's wastewater service area includes more than 20,000 commercial and industrial accounts. See "WASTEWATER SYSTEM FINANCES – Rates and Charges." In 1972, the District began a local source control program. Source control involves the removal of such toxics as heavy metals and organic pollutants before discharging wastes into the sewer system. The District's Wastewater Source Control Program requires pretreatment of wastes by certain categories of industrial customers. The Wastewater Source Control Program has reduced approximately 93% of the amount of heavy metals discharged into sewers, and the District's treatment process reduces the remaining heavy metals by approximately another 83%. These two steps together have reduced by approximately 99% the heavy metals discharged by the Wastewater System into the San Francisco Bay since 1974. In 1988, source control efforts expanded into pollution prevention/waste minimization activities by educating commercial customers about how to reduce not only heavy metals, but volatile organic compounds as well.

Biosolids Management

The solid, stabilized organic materials removed from the wastewater treatment process are called biosolids. The District generates approximately 80,000 wet tons per year of biosolids from wastewater treatment. Because there is no long-term biosolids storage space available at the Main Wastewater Treatment Plant, each day's biosolids production must have a reliable daily destination for beneficial reuse or disposal. The District's biosolids from its Main Wastewater Treatment Plant are predominantly beneficially reused through land application on non-food crop land or alternative daily cover at landfills. Biosolids handling is managed under a contract, which has a scheduled to expiration date of December 31, 2017 subject to an option to extend for two, one-year periods. When landfill alternative daily cover capacity is limited, biosolids are sent for disposal or alternative beneficial reuse processing. These management approaches provide the District with a cost-effective solution to maintain biosolids management reliability.

The District began implementing a Biosolids Environmental Management System in July 2005 and received program certification from the National Biosolids Partnership ("NBP") in September 2006. The District successfully completed external program interim audits in 2007, 2008, 2009, and 2010; a full-program recertification audit in 2011; and interim audits in 2012, 2013, 2014 and 2015. The District developed a robust biosolids management system through the ten years of participation in the certification program. In 2016, the District elected to withdraw from the formal NBP program in favor of maintaining a customized program that continues to focus on continuous improvement, environmental performance beyond meeting regulatory requirements, proactive communications, and implementation of corrective and preventive measures to address programmatic issues without a rigid external audit process.

Consistent with the District's Biosolids Master Plan as updated in 2004 and Board Policy 8.02, the District continues to undertake activities to ensure long-term, cost-effective, and beneficial reuse of biosolids produced at the Main Wastewater Treatment Plant. The District continues to advocate for preservation of its two current beneficial reuse options, land application and landfill alternative daily cover, through industry association leadership positions at the State and national level. In 2017, the District joined a multi-agency Bay Area biosolids coalition dedicated to expanding sustainable uses for biosolids. This coalition has developed several pilot and demonstration scale facilities to test emerging technologies for biosolids processing and energy production.

Regulatory Matters

General Regulatory Framework. The construction and operation of wastewater treatment facilities and the discharge of wastewater are highly regulated activities. The two major laws governing the Wastewater System are the federal Clean Water Act enacted in 1972 (the "Clean Water Act") and the State's Porter-Cologne Act first enacted in 1969 (the "Porter-Cologne Act"). Both laws require that policies, plans, requirements and standards for discharges be developed for all water bodies in order to protect the beneficial uses of the water. The Clean Water Act also regulates the disposal of sewage sludge and authorizes the adoption of sediment standards. The Porter-Cologne Act specifically requires the adoption of sediment standards for enclosed bays and estuaries. In 2008, the State approved sediment quality objectives for enclosed bays and estuaries, including the San Francisco Bay.

The USEPA, the federal agency charged with implementation and enforcement of the Clean Water Act, has delegated much of the planning, permitting and enforcement activities to the states. In California, the State Water Resources Control Board (the "SWRCB") develops policies, plans, requirements and discharge standards for the three types of State waters: inland surface waters, enclosed bays and estuaries, and the ocean.

The Clean Water Act requires the adoption of criteria for priority toxic pollutants that may reasonably be expected to interfere with designated beneficial uses of the waters of the State. As they apply to inland surface waters, enclosed bays, and estuaries, these criteria are found in the California Toxics Rule ("CTR") promulgated by the USEPA in 2000 (40 C.F.R. §131.38), and are implemented by the SWRCB's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" (commonly known as the State Implementation Plan or "SIP") approved in 2000 and amended in 2005 (SWRCB Order No. 2005-0019). These two documents form the basis of the NPDES permitting process for Publicly Owned Treatment Works ("POTWs") in the State. The CTR provides the Water Quality Objectives for priority toxic pollutants and the SIP prescribes the methodology for determining whether a limit for a toxic pollutant should be included in a NPDES permit and the method for calculating the limit if one is needed.

In May 2006, the SWRCB adopted Statewide General Waste Discharge Requirements ("GWDR") for Sanitary Sewer Systems (SWRCB Order No. 2006-0003-DWQ). The GWDR is a proactive approach to ensure system-wide operation, maintenance and management plans to reduce sewer system overflows. Basic requirements of GWDR include on-line reporting of sewer system overflows and the development of a Sewer System Management Plan.

The Regional Board is the enforcement arm of the State and federal water pollution control programs in the San Francisco Bay region. The Regional Board issues NPDES permits under Section 401 of the Clean Water Act, and establishes waste discharge requirements under the Porter-Cologne Act. Discharge permits are issued for a five-year period. The District's Wastewater System currently has two NPDES permits, one for the Main Wastewater Treatment Plant and one for the Wet Weather Facilities. The current NPDES permit for the Main Wastewater Treatment Plant (Regional Board Order No. R2-2015-0018) was reissued effective on July 1, 2015 and will expire on June 30, 2020. The NPDES permit for the Wet Weather Facilities (Regional Board Order No. R2-2014-0044) was most recently reissued effective December 1, 2014 and will expire on November 30, 2019. See also "– *Litigation Relating to the District's Wet Weather NPDES Permit*" below.

Other Agencies with Regulatory Oversight Affecting the Wastewater System. Other regulatory agencies with approval or oversight responsibilities over the construction or operation of the Wastewater System include the Bay Area Air Quality Management District ("BAAQMD"), the Bay Conservation and Development Commission, the California Department of Public Health, and the U.S. Army Corps of Engineers. The roles these other agencies play with respect to operations of the Wastewater System are summarized as follows:

The Bay Area Air Quality Management District: responsible for administering and enforcing local, state and federal air emissions regulations and issues air permits under Title V of the federal Clean Air Act (the "Clean Air Act"). The District currently has a BAAQMD-issued Title V air permit for the Main Wastewater Treatment Plant which expires in 2017, as well as a number of permits to operate at its Wet Weather Facilities and pump stations. Air permits are issued for a five-year period. The District expects to submit an application for a new Title V air permit in mid-2017 prior to the current permit's expiration.

The Bay Conservation and Development Commission: responsible for approving all projects undertaken within San Francisco Bay or within 100 feet of the mean high tide line of the Bay.

The California Department of Public Health: responsible for setting standards for the use of recycled water.

The U.S. Army Corps of Engineers: responsible for approving all construction projects undertaken within navigable waters of the United States.

District Permit Compliance History. As noted above, the District's Wastewater System currently has two NPDES permits, one for the Main Wastewater Treatment Plant, and one for the Wet Weather Facilities. As described below, operation of the District's Wet Weather Facilities is also subject to a Consent Decree effective as of September 22, 2014. Except where expressly authorized by permit, sewer system overflows and the discharge of partially treated or untreated wastewater that reach the surface waters of the U.S. are violations of the Clean Water Act and are subject to fines by the SWRCB and the Regional Board. Since 2000, the District has had fines imposed for unauthorized discharges and permit violations under its NPDES permits for the Wastewater System four times, which has resulted in in fines totaling approximately \$550,000. In addition, a fine of approximately \$200,000 was imposed as part of the Consent Decree civil settlement. See "-Litigation Relating to the District's Wet Weather Facilities NPDES Permit" below. These fines related primarily to wet weather events. The District has also selfreported to the Regional Board four effluent limit violations of its Consent Decree for the Wet Weather Facilities and five sanitary sewer overflows between 2014 and early 2017. No action has yet been taken by the Regional Board with respect to these violations; it is likely that fines will be imposed by the Regional Board. The District does not expect the magnitude of any such fines to be imposed will be material.

The District has had no NPDES effluent limit permit violations at its Main Wastewater Treatment Plant since August 1999.

The Main Wastewater Treatment Plant is also subject to a Major Facility Review Permit (also known as a Title V permit) issued by the BAAQMD pursuant to Title V of the Clean Air Act, the California Health & Safety Code, and BAAQMD regulations. The District has exceeded the permitted hydrogen sulfide limit on digester gas on a total of 5 occasions over the last five years. Additionally, the District has had five violations for the improper release of digester gas to the atmosphere during the last five years. No fine imposed by BAAQMD in the last five years in connection with any one of the foregoing violations totaled more than \$10,000. In response to the hydrogen sulfide violations, the District constructed a new ferric feed system and a digester gas scrubber system to limit the production of hydrogen sulfide gas and remove any significant hydrogen sulfide levels prior to combustion. A capital project to improve the ferric chloride feed system is expected to be completed by 2018. To address the digester gas releases, two new flares have been installed to increase flare capacity at the plant.

Litigation Relating to the District's Wet Weather Facilities NPDES Permit. On January 12, 2007, the SWRCB on its own motion for review issued a draft order (the "Draft SWRCB Remand Order") reviewing the District's 2005 Wet Weather Facilities NPDES Permit (Regional Board Order No. R2-2005-0047) and concluding that the 2005 Wet Weather Facilities NPDES Permit and time schedule order (Regional Board Order No. R2-2005-0048, the "TSO") approved in connection with the issuance of the Wet Weather Facilities NPDES Permit by the Regional Board in September 2005 were inconsistent with the mandates of the Clean Water Act (33 U.S.C. §1251 et seq.) and the implementing USEPA Regulations (40 C.F.R. Part 123). The Draft SWRCB Remand Order concluded that the District's 2005 Wet Weather Facilities NPDES Permit failed to implement secondary treatment requirements and to ensure compliance with applicable water quality standards. Following a public hearing held on May 1, 2007, the SWRCB approved the Draft SWRCB Remand Order with slight modifications (SWRCB Order No. WQ 2007-0004, the "SWRCB Remand Order") and remanded the 2005 Wet Weather NPDES Permit and the TSO to the Regional Board for revisions consistent with the SWRCB Remand Order.

On January 14, 2009, the Regional Board issued the District a subsequent Wet Weather Facilities NPDES permit (Regional Board Order No. R2-2009-0004), effective for the five-year period

January 14, 2009 through January 13, 2014. Previous permits issued by the Regional Board allowed the District to discharge flows from its three Wet Weather Facilities during heavy storm events, following primary treatment and disinfection, as part of a regional solution to help prevent sewer overflows on streets in the East Bay communities. This approach was consistent with USEPA policy at the time the Wet Weather Facilities were constructed. The 2009 permit, however, was more stringent and prohibited the District from discharging any flows from its Wet Weather Facilities to San Francisco Bay even during heavy storm events. Recognizing that discharges from the Wet Weather Facilities cannot be immediately halted without causing sewer overflows, the Regional Board simultaneously issued a Cease and Desist Order ("CDO," Regional Board Order No. R2-2009-0005) requiring the District to develop a plan for eliminating discharges from the Wet Weather Facilities at the earliest possible date. The CDO noted that the time schedules therein accounted for the considerable uncertainty in determining effective measures to achieve compliance and may be revisited. The inability of the District to meet the terms of the new Wet Weather Facilities NPDES permit also prompted the USEPA, the SWRCB and the Regional Board to seek judicial entry of a Stipulated Order memorializing the compliance plan and rendering it enforceable. Towards that end, a Stipulated Order for Preliminary Relief (the "SO") was negotiated among the District and the USEPA, the SWRCB, the Regional Board and the Department of Justice. After negotiations were completed, the regulatory agencies initiated a lawsuit against the District on January 15, 2009 (United States of America, et al. v. East Bay Mun. Util. Dist., No. CV 09-0186 RS (N.D. Cal.)) and simultaneously filed the proposed SO for the Court's approval. The SO was approved by the Court and became effective on July 22, 2009.

The objective of the SO was to develop remedial measures to address the excess wet weather flow issues. It was intended as an interim remedy and was designed to develop information to tailor a final remedy for inclusion in a final Consent Decree which is anticipated to fully and finally resolve the litigation. The SO required the District, among other things, to initiate a number of programs, including: (i) a flow monitoring and data assessment program, including the monitoring of flows to the District's interceptor system from the participating agencies that discharge into the District's interceptors (see "Wastewater Facilities" above), the modeling of peak flows under design storm conditions, and the development of alternative sets of capacity flow limits; (ii) a private sewer lateral regional ordinance program requiring the District to develop, adopt and implement a regional ordinance setting standards for the performance of lateral sewer pipes that extend from privately-owned structures to the participating agencies' collection systems and requiring property owners to obtain private sewer lateral compliance certificates at specified junctures, such as upon sale of property, upon obtaining building permits, and upon requests for changes in District water meter size; (iii) a private lateral incentive program requiring the District to provide \$2 million per year in incentives to encourage private lateral inspection and replacement; (iv) an interceptor system asset management program to develop protocols for interceptor condition assessment, including an inspection of the entire system within five years and annual repairs and reporting; and (v) development of a collection system asset management template through an interactive process among the District, the participating agencies and regulators.

The SO programs represented the first phase in the development of a long-term solution to address peak wet weather discharges. In parallel to the litigation and SO involving the District, the participating agencies that cause and contribute to the District's Wet Weather Facility discharges entered into their own SO with the USEPA, the SWRCB, the Regional Board and the U.S. Department of Justice, which was approved by the Court in a related lawsuit and became effective on September 6, 2011. The activities undertaken by the participating agencies under their parallel SO yielded further information and progress toward development of a long-term solution.

In January 2013, the District and the participating agencies began joint settlement negotiations with the USEPA, the SWRCB, the Regional Board and the Department of Justice with a goal of adopting a long-term Consent Decree and resolving both parallel lawsuits, which were consolidated. The

negotiators for all parties reached tentative agreement on a proposed Consent Decree, which was approved for execution by their respective approving officials in July 2014. On July 28, 2014, the proposed Consent Decree was lodged with the federal court by the regulatory agencies, and the terms of the proposed Consent Decree were publicly released. On September 22, 2014, the U.S. District Court entered the Consent Decree, which became effective the same day. The final Consent Decree supersedes the SO and lays out a program of work by the District and the participating agencies designed to result in reducing peak wet weather flows over time to the point that the District's Wet Weather Facilities would no longer discharge during storm events smaller than a pre-determined rainfall event. Once the program of work is complete, it is anticipated that, in the vast majority of storms, the District's Wet Weather Facilities would be used only to provide temporary storage of peak flows which would be drained back to the District's Main Wastewater Treatment Plant for secondary treatment and discharge.

The Consent Decree is expected to be in effect for approximately 22 years. The Consent Decree requires the District and the participating agencies to demonstrate by mid-2036 that sufficient work has been performed on their regional wastewater facilities to eliminate discharges from the District's Wet Weather Facilities except during storm events of exceptional magnitude. Under the terms of the Consent Decree, the participating agencies are required to rehabilitate approximately 500 miles of their local wastewater collection systems to reduce infiltration and inflow. The District is required to, among other things: (i) continue the regional private sewer lateral ordinance program developed pursuant to the SO; (ii) upgrade segments of its interceptors; (iii) develop and implement a regional technical support program to identify inflow sources within the participating agencies' regional collection systems and assist in prioritizing them for repair by the participating agencies; and (iv) design and implement a plan to evaluate performance through flow monitoring and modeling and to report to the regulatory agencies on the overall progress toward achieving the Consent Decree mandates. The Consent Decree requires the District and the participating agencies to meet certain pre-established interim benchmark percentage reductions for Wet Weather Facility discharges (8 and 16 years into the Consent Decree term). Failure to achieve any of these targets would result in additional flow monitoring obligations under the Consent Decree and may also result in revisions to the work plan developed under the Consent Decree. Work plan revisions could include additional work obligations for the District and/or the participating agencies. If and when work plan revisions become necessary, the Consent Decree parties would negotiate the nature and scope of such revisions and, if additional expenditures are required to implement the revisions, each party's share of such expenditures.

The District's identified goal in developing the Consent Decree was to achieve a plan that serves the interests of the District and its ratepayers by adequately reducing wet weather flows while ensuring any necessary financial investments are apportioned and scheduled in the most cost-effective and equitable manner possible. The District currently estimates that the cost of implementation of the programs and activities required to be undertaken by the District under the Consent Decree (exclusive of certain of the interceptor improvements which the District would expect to budget and undertake in the normal course of its long-term capital improvement program) would average approximately \$5 million per year over the life of the Consent Decree, portions of which are ongoing projects or programs included in the current capital and operating budgets. Under the terms of the Consent Decree, the District and the participating agencies paid certain civil penalties, the District's share of which was \$201,600. The Consent Decree provides for the possible future imposition of financial penalties on the District and/or the participating agencies in the event of failure to perform the required work or meet a deadline established under the Consent Decree.

The RWQCB reissued the District's NPDES permit for the Wet Weather Facilities (Regional Board Order No. R2-2014-0044) on November 12, 2014. The prior permit expired in January 2014 during Consent Decree negotiations. The reissued permit became effective on December 1, 2014 and will remain in effect for up to five years. The District believes the reissued permit is consistent with Consent Decree

obligations and does not impose significant new obligations on the District. Also on November 12, 2014, the Regional Board reissued NPDES permits for the sanitary sewer collection systems of the participating agencies. These reissued permits of the participating agencies also became effective on December 1, 2014.

Future Statutory and Regulatory Compliance. As noted above, the construction and operation of wastewater facilities and the discharge of wastewater are highly regulated activities. Federal, State and local standards and regulations are subject to change. Changes in the scope and standards for regulation of wastewater systems, such as the District's Wastewater System, may lead to more stringent operating requirements and the imposition of future administrative or judicial orders issued by federal or State regulators or a court. Compliance with future requirements and orders that may be adopted could impose substantial additional costs on the Wastewater System. Furthermore, claims against the Wastewater System for failure to comply with applicable laws and regulations could be significant. The District is actively involved with major wastewater industry associations and routinely monitors and participates in the regulatory process in order to ensure that a "sound science" approach is applied in determining the need, and (if deemed necessary) implementation approach, for potential regulatory changes. However, no assurance can be given that the laws and regulations currently in effect will not change or that the Wastewater System will always be able to obtain all required operating permits or that the cost and/or impact of compliance with applicable laws, regulations or orders will not adversely affect the finances or operations of the District's Wastewater System.

One area identified for potential future regulatory change is with respect to the discharge of nutrients. Wastewater often contains large amounts of nitrogen and phosphorus, known as nutrients. There is some data indicating that there are potential impairment issues in San Francisco Bay related to these nutrients, a significant portion of which come from wastewater treatment plants. The District is a principal agency of the Bay Area Clean Water Agencies ("BACWA"), a joint powers agency, formed under the California Government Code by the five largest wastewater treatment agencies in the San Francisco Bay Area, presently supporting a multi-year work plan to study possible impairment of the San Francisco Bay due to nutrients. BACWA is also engaged in an effort with the Regional Board that resulted in the development of a watershed-based permit for all of the San Francisco Bay wastewater agencies in order to provide a level of regulatory certainty for the timeframe of the study. The NPDES permit (Regional Board Order No. R2-2014-0014), which became effective on July 1, 2014, requires wastewater agencies to monitor and evaluate approaches to reduce nutrient discharges, and provides financial support to fund regional scientific studies investigating nutrient impacts to San Francisco Bay. At this time, the District is unable to predict the outcome of these studies or the likelihood or implications of any future nutrient-related regulations that may be adopted; however, the District will continue engaging with regulators and stakeholders on this issue. The District has received a grant from the USEPA to evaluate alternative approaches to reduce nutrients.

Resource Recovery

In 2001, the District initiated a pilot program to provide revenue enhancement for the Wastewater System through the utilization of excess dry weather capacity at its Main Wastewater Treatment Plant to accept trucked waste from outside its service area. The District's resource recovery program accepts a variety of trucked liquid and solid waste streams from outside the service area of Special District No. 1 for disposal in an environmentally sound manner. High strength trucked wastes are discharged into underground tanks, processed and anaerobically co-digested with biosolids. This program provides an additional source of methane gas for use in the District's power generation plant at the Main Wastewater Treatment Plant (see "– Power Generation/Energy Recovery" below) and generates an additional source of revenue for the Wastewater System through the collection of tipping fees charged to the trucked waste haulers. See also "WASTEWATER SYSTEM FINANCES – Resource Recovery Revenues."

Power Generation/Energy Recovery

In addition to biosolids, another wastewater treatment byproduct is methane gas, which is produced by the sludge digestion process. The District currently operates a 10.8 megawatt power generation plant fueled by the methane gas produced at the Main Wastewater Treatment Plant, consisting of three 2.1 megawatt engines installed in 1985 and an additional 4.5 MW turbine installed in 2011, which is utilized to supply energy to operate the Main Wastewater Treatment Plant. As a result of the installation of the additional turbine in 2011, the District is able to generate more electric energy than that required to operate the Main Wastewater Treatment Plant, making the District's Main Wastewater Treatment Plant the first net electricity producing wastewater facility in the United States. Electrical energy produced in excess of that needed for plant operations is sold back to the utility grid. The ability to generate power to operate the Main Wastewater Treatment Plant facility reduces the District's exposure to energy cost volatility in its Wastewater System operations.

Climate Change

The effects of global climate change are expected to increase the risk of flooding at wastewater facilities due to the greater frequency of high precipitation events and sea level rise. The District has developed mitigation and adaptation strategies to deal with the changing climate and its effect on its wastewater facilities. In 2008, the District incorporated climate change into its Strategic Plan, and has developed and implemented a climate change monitoring and response plan, which includes specific guidance on infrastructure planning.

The District's response to climate change focuses on:

- keeping current with science and assessing potential effects of climate change in the Mokelumne and East Bay watersheds and on local East Bay facilities, including the District's wastewater facilities such as the Main Wastewater Treatment Plant;
- determining water supply and infrastructure vulnerabilities;
- monitoring and reducing greenhouse gas emissions caused by the District's operations;
- integrating climate change in strategic planning and budgeting decisions;
- advocating for new legislation and regulations that help water and wastewater agencies better respond to climate change; and
- developing adaptation and mitigation strategies as part of water supply management and wastewater treatment programs.

Security and Emergency Preparedness

The District has implemented a security program to provide a secure work place; maintain safe and reliable water supply and wastewater services; and to prevent or mitigate potential damage or loss of assets from internal and external threats. The District's Security Office manages the security program which includes assessment, capital, operational and coordination elements. These efforts are guided by the Security Vulnerability Assessment (SVA), water/wastewater industry experience, actual experience at District facilities, and industry standards/guidelines. The program's systems, procedures, and personnel are designed to deter, detect, delay and assess potential criminal actions.

The District has a Security Operations Control Center (the "SOCC") that is staffed seven days a week, 24 hours a day. The SOCC houses a proprietary centralized security system to monitor access controls, video cameras and recorders, and security alarms. The dispatchers at the SOCC monitor alarms,

assess conditions using the security system, and dispatch security and law enforcement response as needed for alarms and reports of suspicious circumstances or crimes at District facilities. The security system maintains access controls for water and wastewater treatment, administrative and maintenance facilities, its storage yards and service centers, and the reservoirs and pumping plants in its water distribution system. District security includes an internal security staff and security contractors. Contract security officers are also used to supplement automated access controls at certain key facilities.

The District maintains an active emergency preparedness program that includes an Emergency Operations Plan (EOP) to help manage the District's critical operations during any emergency and protect people, property, and the environment. The District also maintains a Business Continuity Program Plan (BCPP) to minimize impacts to critical business functions and enhance its capability to recover operations expediently and successfully following a disruptive incident. Pursuant to state law, District employees are sworn disaster service workers, and staff is trained to use California's Standardized Emergency Management System (referred to as SEMS) and the National Incident Management System (NIMS) in response to emergencies and security incidents. As part of its Emergency Operations Plan, the District maintains two strategically located emergency operations centers and a mobile emergency command center, and has in place an emergency operations team to lead emergency response activities. The District also has adopted business continuity plans for individual work units to ensure the District's ability to respond to, and recover from, any emergency or other event that disrupts its normal business functions.

The District's cyber security program leverages a defense-in-depth approach to maintain the confidentiality, integrity, and availability of the District's business information systems, data, and water and wastewater control systems. There are dedicated IT Security staff who perform a variety of functions, including intrusion detection and prevention, incident response, monitoring for malware, vulnerabilities, and anomalous network traffic, promoting cyber security awareness to District staff, and auditing the environment to ensure that configurations remain consistent with security objectives as well as implementing new security controls as needed to stay ahead of continually evolving security threats. Third party audits and vulnerability assessments are also utilized to identify any potential areas of improvement for the overall cyber security program. The District also maintains a backup data center to facilitate recovery of critical business systems after a disaster.

Seismic Matters

The District is located in a seismically active region of California. The Hayward Fault runs through the entire western portion of the District and the Calaveras Fault runs through the southeastern portion of the District. The Concord Fault is located several miles to the east of the District and the San Andreas Fault is located to the west.

The District commissioned a seismic evaluation study, completed in 1994, that examined the potential impacts on the District's Wastewater System of various magnitudes of earthquakes along the Hayward Fault. The study found that many of the Wastewater System facilities are located on poor soil and could be affected by liquefaction and settlement. Although structures supported on pile foundations should withstand the liquefaction with minimal structural damage, piping and electric conduit penetrating into basement walls of these structures could be sheared, effectively causing loss of function in the facility. The study further concluded that, in the event of the largest credible earthquake measuring 7.5 on the Richter scale from the Hayward Fault, approximately half of the facilities at the Main Wastewater Treatment Plant would suffer significant damage, that three of the District's 15 pump stations could possibly experience loss of function and that interceptor blockage could lead to sewage backup into the San Francisco Bay or onto city streets. A major earthquake could also have a severe adverse impact on the economy of the District's wastewater service area.

In response to the 1994 seismic evaluation study, the District initiated a multi-year Wastewater Seismic Repairs Program, which focused on the retrofit of all the facilities that, if a failure occurred, would endanger life and/or public health. All of the high priority projects identified in the 1994 seismic evaluation study have been completed. Each of the operations center, sludge dewatering building, primary sedimentation blower building and oxygenation tank control buildings have been seismically retrofitted. The District has also made seismic improvements through other capital upgrade projects. The District will continue to undertake projects designed to reduce the possibility of significant damage to the Wastewater System and enhance seismic safety as part of its comprehensive capital improvement project planning process (discussed under "– Capital Improvement Program" below).

Despite the completed and continuing seismic work, in the event of significant earthquake damage to the Wastewater System and/or the District's service area, there can be no assurance that Subordinated Wastewater Revenues would be sufficient to pay the principal of and interest on any outstanding Wastewater System Revenue Bonds.

Capital Improvement Program

Since Fiscal Year 2002, the District has implemented a biennial budget. In the Spring of odd-numbered years, a budget is presented to the Board for consideration for the two ensuing Fiscal Years. The District's biennial budget planning process includes a review of projected long-term (10 years or longer) facilities needs and the development of a capital expenditure forecast for the ensuing five fiscal years. A series of master plans document the identified facilities needs by asset classes and include assessments of the District's key facilities, taking into consideration condition assessments, operational performance and maintenance histories. Facilities in need of rehabilitation or replacement are identified and prioritized. Project scopes are also defined (for example, replacement of aging mechanical or electrical equipment, seismic upgrades, or other defined scopes).

The results of the master plans are considered during the biennial update to the Capital Improvement Program (the "CIP"). The previous CIP update was completed in 2015 in connection with the development of the District's biennial budget for Fiscal Years 2016 and 2017 and included a five-year capital expenditure forecast for Fiscal Years 2016 through 2020. Based upon this CIP forecast, the District's expenditures for capital improvements to the Wastewater System for Fiscal Years 2016 through 2020 were estimated to aggregate approximately \$168.5 million.

An updated forecast of projected CIP expenditures and projects covering the five Fiscal Years 2018 through 2022 has been developed in connection with the District's proposed biennial budget for Fiscal Years 2018 and 2019. The proposed biennial budget, including the five-year capital expenditure forecast for Fiscal Years 2018 through 2022, was presented to the Board on April 11, 2017. The biennial budget for Fiscal Years 2018 and 2019 is scheduled for consideration for adoption by the Board on [June 13,] 2017.

In the Fiscal Year 2018 through 2022 CIP, the District is continuing its focus on investments in infrastructure rehabilitation, repair and replacement and improvements designed to ensure ongoing compliance with new and existing wastewater regulations and permit requirements. The five-year CIP cash expenditures are projected to aggregate approximately \$187.7 million, an 11.4% percent increase over the current budget.

Table 3 summarizes the District's Fiscal Years 2018 through 2022 projected CIP cash expenditures by major category as forecast in the proposed biennial budget for Fiscal Years 2018 and 2019.

Table 3 Fiscal Years 2018-2022

Capital Improvement Program Proposed FY 2018 and FY 2019 Biennial Budget

Forecast – Cash Expenditures⁽¹⁾ (Thousands)

Fiscal Year Ending June 30,

		<u> </u>						
	2018	2019	2020	2021	2022	Total ⁽³⁾		
Maintaining Infrastructure	\$33,120	\$33,130	\$33,394	\$27,342	\$26,264	\$153,252		
Regulatory Compliance	5,272	3,394	1,532	4,316	4,364	18,878		
Admin. & General Expenses ⁽²⁾	3,000	3,000	3,090	3,183	3,278	15,551		
Total ⁽³⁾	\$41,394	\$39,525	\$38,016	\$34,840	\$33,906	\$187,681		

⁽¹⁾ Cash expenditures include spending for projects appropriated in earlier Fiscal Years.

Source: The District.

The cost estimates are subject to revision in connection with the subsequent five-year CIP forecast prepared as part of the biennial budget planning process. See also "- Construction-Related Risks" below.

Included in the District's five-year capital plan for Fiscal Years 2018 through 2022 as reflected in the proposed biennial budget for Fiscal Years 2018 and 2019 are the major programs and projects described below:

Maintaining Infrastructure. The projects and programs in this category are aimed at furthering the District's objectives to improve, rehabilitate and replace aging infrastructure in a cost effective manner to ensure sustainable delivery of reliable, high quality service at both the Main Wastewater Treatment Plant and remote facilities. The primary work scheduled to be undertaken focuses on rehabilitating the digesters, concrete structures, and treatment process facilities at the Main Wastewater Treatment Plant; implementing odor control improvements; and rehabilitating sections of the sewer interceptor system.

The Digester Upgrade project involves the rehabilitation of the digesters which perform a key role in stabilizing wastewater solids prior to disposal. Interior coatings applied to some digesters are experiencing failure, and the coatings are scheduled to be repaired in Fiscal Years 2018 and 2019. Over the five-year period from Fiscal Year 2018 through Fiscal Year 2022, replacement of the floating covers on Digester Nos. 3 and 4, and the membrane on Digester No. 2 is planned, along with seismic upgrades, mechanical piping work, and associated electrical and control upgrades.

The Concrete Rehabilitation project addresses critical concrete structures, channels and gates at the Main Wastewater Treatment Plant as sulfides and other constituents in the wastewater have accelerated corrosion. Repair of the primary tank channels is being conducted in phases and includes replacement of valves, gates and control panels. Phases 3 through 6 are scheduled to take place during Fiscal Years 2018 through 2021. Repairs to the secondary aeration reactor basins are scheduled to be completed in four phases with the repair of two tanks per year starting in Fiscal Year 2018.

⁽²⁾ Includes overhead, construction management and other administrative costs which are allocated to individual projects upon their completion.

⁽³⁾ Totals may not add due to rounding.

The Odor Control project provides for odor control facilities to improve the air quality in communities along the collection system and at the Main Wastewater Treatment Plant. Planned work includes replacing the odor control units at the influent pump station coarse screen and intake structure in Fiscal Years 2018 and 2019; replacing the scrubber system at the resource recovery receiving station during Fiscal Years 2018 through 2020; and covering portions of the primary sedimentation tanks and providing two new chemical scrubbers during Fiscal Years 2018 through 2021.

The Treatment Plant Infrastructure projects provide for the cyclical replacement and rehabilitation of various treatment process facilities at the Main Wastewater Treatment Plant. Work planned for Fiscal Years 2018 through 2022 includes the replacement of large variable frequency drives; repair or replacement of flow meters; laboratory upgrades; rehabilitation of the secondary clarifiers; installation of a plant-wide intercom system; improvements to the plant gallery drains and internal plant drain; upgrades to the security system; improvements to the East Gate Undercrossing; grit handling equipment replacement; and improvements to the Administration and Operations Buildings.

The Interceptor Rehabilitation program includes several projects to rehabilitate portions of the interceptor system that are approximately 60 years old. Over the five-year capital plan period, all phases of the rehabilitation of a 9,200 foot portion of the 105-inch diameter South Interceptor along 3rd Street are scheduled to be completed.

The Pump Station Improvements program includes upgrades to various pump stations such as the replacement of equipment; sump pumps and flow meters; the addition of programmable logic controllers and software; access improvements; and the replacement of discharge piping. Work is scheduled for Pump Station M in Alameda in Fiscal Years 2019 and 2020, Pump Station L in Oakland in Fiscal Years 2020 and 2021, and Pump Station C in Alameda in Fiscal Years 2022 and 2023.

The Resource Recovery program was developed to accept a wide variety of solid and liquid wastes delivered by truck to the Main Wastewater Treatment Plant. Upgrades planned in Fiscal Years 2018 through 2020 include improvements to the solid/liquid waste receiving station and the blend tank receiving station which will result in the ability to accept additional high-strength waste.

Regulatory Compliance. Projects in the Regulatory Compliance category are designed to further the District's objectives to operate and maintain facilities to meet all water discharge, air emission, and land disposal requirements; to ensure protection and stewardship of San Francisco Bay; and implement preventative and corrective maintenance programs. Work in this category is focused on developing strategic nutrient management solutions to meet current and potential future regulatory requirements.

The North Interceptor Pump Station Q Project includes modifications to portions of the North Interceptor to allow dual-mode operation of Pump Station Q (PS Q) for use as either a gravity relief sewer (north to south flow) or a forcemain (south to north flow). Based on wet weather flow modeling work completed to date, discharges from the wet weather facilities may be reduced by operating the PS Q forcemain as a gravity sewer with relatively minor modifications. Construction began in Fiscal Year 2017 and is expected to be completed in Fiscal Year 2019.

The Nutrient Management Project includes the development of strategic nutrient management solutions to meet current and potential future regulatory requirements. Starting in Fiscal Year 2018, a master plan will be developed to identify and evaluate a range of cost-effective alternatives to achieve nutrient reductions for the Main Wastewater Treatment Plant that provide broad environmental and public health benefits. The planned work includes conducting one or more pilot-scale tests to evaluate promising sidestream nutrient treatment/recovery technologies. It also includes the implementation of sidestream and mainstream treatment, if necessary, in Fiscal Year 2021 and beyond.

Other Potential Projects. The District also has appropriated funds to meet unanticipated capital needs and for projects that are seeking grant funding. These funds will be used to pay for capital expenditures such as replacements or repairs to facilities and equipment and to fund new or accelerate existing projects in between budget cycles. Funds will also be available for grant funded projects that normally require the District to fund the costs and then apply for reimbursements. The District also has contingency funds in its capital budget for costs associated with the potential expansion of the District's existing food waste processing facility, the acquisition and construction of a new food waste processing facility or a new dedicated dewatering facility to accommodate potential growth in the receipt of food waste for anaerobic digestion.

The District's currently estimated funding sources for its CIP for Fiscal Years 2018 through 2022 as reflected in the proposed biennial budget for Fiscal Years 2018 and 2019 are set forth in Table 4:

Table 4
Fiscal Years 2018-2022
Proposed FY 2018 and FY 2019 Biennial Budget
Sources of Funds for Capital
Improvement Program Expenditures

Funding Sources	(Millions)
Revenues	\$122.5
Bond Proceeds	65.2
Commercial Paper Proceeds	0.0
Advances, Contributions and Reimbursements	0.0
Total	<u>\$187.7</u>

Source: The District.

Construction-Related Risks. Construction projects for the Wastewater System are subject to ordinary construction risks and delays applicable to projects of their kind, including but not limited to (i) inclement weather affecting contractor performance and timeliness of completion, which could affect the costs and availability of, or delivery schedule for, equipment, components, materials, labor or subcontractors; (ii) contractor claims or nonperformance; (iii) failure of contractors to execute within contract price; (iv) work stoppages or slowdowns; (v) failure of contractors to meet schedule terms; (vi) errors or omissions in contract documents requiring change orders; (vii) the occurrence of a major seismic event; or (viii) unanticipated project site conditions, including the discovery of hazardous materials on the site or other issues regarding compliance with applicable environmental standards, and other natural hazards or seismic events encountered during construction. In addition, Wastewater System construction projects may require scheduling system shutdowns to avoid impacting services and many shutdown windows are inflexible. Increased construction costs or delays could impact the Wastewater System's financial condition in general and the implementation of its CIP in particular. Construction bids may also be higher than anticipated for budgeting purposes.

WASTEWATER SYSTEM FINANCES

Basis of Accounting

The District reports operations on a Fiscal Year basis (currently July 1 through June 30). Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises, where the costs of providing goods and services to the general public are financed or recovered primarily through user charges. Enterprise funds are accounted for using the accrual basis of accounting. The accounting policies of the District conform to generally accepted accounting principles for municipal water and wastewater utilities. The accounts are maintained substantially in accordance with the Uniform System of Accounts prescribed for investor-owned and major municipally-owned water and wastewater utilities.

Sources of Funds

The District finances its wastewater operations with rates and charges, a share of the county-wide real property tax levy, and an *ad valorem* property tax levied to meet general obligation bond debt service payments. The Wastewater System's principal source of revenues is dry weather user charges billed directly to customers of the participating agencies. In Fiscal Year 2016, dry weather user charges of \$66.0 million provided approximately 56.4% of the Wastewater System's \$117.1 million total sources of funds. Wet weather facilities charges collected on the property tax bills issued by Alameda and Contra Costa County accounted for approximately 18.7% of the total sources of funds of the Wastewater System and are designed to recapture the cost of financing the District's Wet Weather Facilities. The District's resource recovery program generated approximately 9.9% of the Wastewater System's total sources of funds in Fiscal Year 2016.

Table 5 sets forth the District's Wastewater System sources of funds for the five Fiscal Years ended June 30, 2016. The sources of funds in Table 5 include certain funds which do not constitute Subordinated Wastewater Revenues for purposes of funds pledged under 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 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. See "- Property Tax Revenues" below. 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. See "SECURITY FOR THE SERIES 2017A BONDS - Pledge of Subordinated Wastewater Revenues." Comparative summaries of the Wastewater System's historical operating results and debt service coverage ratio for each of the last five Fiscal Years appear in Table 15.

Table 5
WASTEWATER SYSTEM SOURCES OF FUNDS
Five Fiscal Years ended June 30, 2015
(Millions)

	2012	2013	2014	2015	2016
Operating Revenue and Other Income:					
Dry Weather User Charges	\$55.2	\$ 58.8	\$ 61.8	\$ 65.1	\$66.0
Wet Weather Facilities Charges	17.2	18.3	19.4	21.8	21.9
Resource Recovery	9.1	9.2	10.6	11.3	11.6
Interest ⁽¹⁾	1.6	0.3	0.2	0.3	0.4
Taxes ⁽²⁾	8.3	9.4	9.9	8.5	7.9
Other Revenues ⁽³⁾	<u>3.5</u>	4.1	6.3	5.6	5.2
Total Revenues	\$94.9	\$100.1	\$108.2	\$112.6	\$113.0
Capital Contributions:					
Wastewater Capacity Fees	2.8	1.3	0.8	2.8	3.1
Earned contributions on construction	0.0	0.0	0.0	0.0	0.7
Grants and reimbursements	0.0	0.3	0.4	0.3	0.3
Total Contributions	\$ 2.8	<u>\$ 1.6</u>	<u>\$ 1.2</u>	\$ 3.1	\$ 4.1
TOTAL	<u>\$97.7</u>	<u>\$101.7</u>	<u>\$109.4</u>	<u>\$115.7</u>	<u>\$117.1</u>

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

Source: The District.

Rates and Charges

The District's rates and rate structure are established by the District's Board after a public hearing process, and are not subject to regulation by any other agency. Under California law, the imposition of, or any increase in, a property-related fee or charge, including fees and charges for ongoing wastewater service, is subject to specified procedural requirements (including notice, hearing and protest procedures). In addition, pursuant to California law all such property-related fees and charges meet certain substantive standards, including that such fees and charges must be proportional to the cost of providing service. See "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS – Proposition 218" for a discussion of the procedural and substantive requirements to which the District's rate increases are subject.

From Fiscal Year 2013 through Fiscal Year 2017, total annual residential wastewater charges imposed by the District have increased by an average of approximately 5.3% per Fiscal Year. The overall average rate increases, which includes the rate increases for all customer classes and rate components (including District treatment and disposal charges, wet weather facilities charges and San Francisco Bay Pollution Prevention Fee), over the same period was approximately 6.7%. The District's most recent increases in wastewater service rates and charges included the adoption on June 9, 2015 of overall rate increases of 5.00% and 5.00% for Fiscal Years 2016 and 2017, respectively. In Fiscal Year 2015, the District completed an updated cost of service study as a result of which certain adjustments were made to the treatment service charge, flow charge, strength charge and wet weather facilities charge components of the District's wastewater charges.

⁽²⁾ Includes the District's share of 1% countywide property tax and the *ad valorem* tax levied for repayment of Special District No. 1's general obligation bonds.

Other Revenues also includes revenues received from the sale of energy to the utility grid. See "THE WASTEWATER SYSTEM – Power Generation/Energy Recovery." Other Revenues excludes reimbursements and certain other receipts applied directly to operating expenses.

In conjunction with the Board's consideration for adoption of the District's proposed biennial budget for Fiscal Years 2018 and 2019, the Board will consider for adoption proposed system-wide rate increases of 5.0% and 5.0% for Fiscal Years 2018 and 2019, respectively, following a public hearing on the proposed rate increases to be held on such date.

Table 6 sets forth a history of the average residential rate increases and overall average rate increases for all customers enacted by the District for Fiscal Years 2013 through 2017 and the proposed average residential and overall average rate increases for all customers for Fiscal Years 2018 and 2019.

Table 6 HISTORY OF WASTEWATER RATE INCREASES⁽¹⁾

Fiscal Year	Average Residential Rate Increase	Overall Average Rate Increase ⁽¹⁾
2013	5.93%	6.00%
2014	8.24	9.00
2015	8.29	8.50
$2016^{(2)}$	$(0.81)^{(2)}$	$5.00^{(2)}$
$2017^{(3)}$	4.88 ⁽³⁾	$5.00^{(3)}$
Proposed 2018 ⁽⁴⁾	$4.82^{(4)}$	$5.00^{(4)}$
Proposed 2019 ⁽⁴⁾	5.07 ⁽⁴⁾	$5.00^{(4)}$

Overall average rate increase includes wastewater treatment and disposal charges, wet weather facilities charges and San Francisco Bay Pollution Prevention Fees.

Source: The District.

The District's current (Fiscal Year 2017) wastewater rates are set forth Table 7. The District believes that the current rate structure is consistent with federal and State regulations, which require generally that wastewater charges be proportionate to the operation, maintenance and replacement costs associated with providing service for each discharger or class of dischargers. See also Table 16 under "Projected Operating Results" for a description of projected future rate increases.

⁽²⁾ 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.

Adopted overall average rate increase that took effect on bills issued on and after July 1, 2016.

⁽⁴⁾ A public hearing on the proposed rate increased for Fiscal Years 2018 and 2019 is scheduled for [June 13], 2017 at which time the Board will consider the proposed Fiscal Year 2018 and 2019 rate increases for adoption. If adopted, the proposed rate increase for Fiscal Year 2018 would be effective on bills issued on or after July 1, 2017 and the proposed rate increase for Fiscal Year 2019 would be effective on bills issued on or after July 1, 2018.

Table 7
WASTEWATER SYSTEM RATES AND CHARGES
Effective July 1, 2016 and Proposed July 1, 2017

	Effective July 1, 2016	Proposed July 1, 2017	
Residential Charge:		- · · , · ·	
Service Charge (per account)	\$ 5.55	\$ 5.83	per month
Strength Charge (per dwelling unit)	7.64	8.02	per month
Flow Charge	1.09	1.14	per 100-cubic foot unit, to a maximum of 9 units
San Francisco Bay Pollution			
Prevention Fee	0.20	0.20	per month per dwelling unit
Non-Residential Charge:			
Service Charge (per meter)	5.55	5.83	per month
Treatment Charge	1.24-14.50	1.29-15.22	per unit, depending on the nature of the business
San Francisco Bay Pollution			
Prevention Fee	5.48	5.48	per month
Minimum Monthly Charge:			
Duplex	20.83	21.87	per month
Triplex	28.47	29.89	per month
Permit Accounts:			
Flow Charge	1.085	1.139	per hundred cubic feet
CODf	0.321	0.337	per pound of discharge
Suspended Solids	0.469	0.492	per pound of discharge
Wet Weather Facilities Charge:			
Small lot (0-5,000 sq. ft.)	94.10	98.80	per year per land parcel
Medium lot (5,001-10,000 sq. ft.)	147.00	154.34	per year per land parcel
Large lot (>10,000 sq. ft.)	336.00	352.80	per year per land parcel

Source: The District.

Comparison of Wastewater System Charges

Annual charges of various Bay Area wastewater service providers for single family residences discharging 6.0 hundred cubic feet ("Ccf") of wastewater per month (as determined based upon metered water consumption) are shown in Table 8. Charges for cities served by the District include both the cities' charge for collection and the District charge for treatment and disposal. Charges for these cities include costs of sewer rehabilitation programs, now underway, to reduce wet weather infiltration and inflow into their collection systems. The District rates also reflect an additional wet weather facilities charge (based on lot size: proposed for Fiscal Year 2018 to be \$98.80 for lots from 0 to 5,000 square feet) to pay the cost of the wet weather program.

Table 8 COMPARATIVE ANNUAL WASTEWATER CHARGES⁽¹⁾ Single Family Residences 6.0 Ccf/Month Effective Rates as of July 1, 2017

City and County of San Francisco	\$893
Central Marin Sanitary District	861
City of Richmond	771
East Bay Municipal Utility District (2)(3)	771
City of Pinole	727
City of Livermore	540
Central Contra Costa Sanitary District ⁽³⁾	538
City of Vallejo	537
West Contra Costa Sanitary District	519
Delta Diablo Sanitary District	469
City of Pleasanton	464
City of San Jose	427
City of San Leandro	408
Union Sanitary District	393
Dublin San Ramon Services District	382
Oro Loma Sanitary District	238

⁽¹⁾ Includes collection and treatment charges.

Source: The District.

Wastewater User Charge Revenues and Number of Connections by User Type

Table 9 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, 2016.

Table 9
WASTEWATER DRY WEATHER USER CHARGE REVENUES
AND NUMBER OF CONNECTIONS BY USER TYPE
Fiscal Year ended June 30, 2016

Type of Customer	User Charge Revenues ⁽¹⁾	Percent of Revenues	Number of Connections	Percent of Accounts
Residential	\$36,275,341	55.0%	157,771	89.6%
Commercial	24,501,673	37.2	16,807	9.5
Industrial	1,890,311	2.9	698	0.4
Public	3,248,706	4.9	<u>751</u>	0.4
Total ⁽²⁾	\$65,916,031	100.0%	176,027	100.0%

⁽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.

Source: The District.

⁽²⁾ Monthly charges vary by metered water consumption. The District portion of the charge assumes a monthly wastewater discharge of 6.0 Ccf for a proposed annual charge of \$349, based on proposed rates for Fiscal Year 2018 (including the \$98.80 wet weather facilities charge for small lots), plus an average community collection charge of \$422 per year throughout the wastewater service area.

⁽³⁾ Proposed rate effective July 1, 2017.

⁽²⁾ Totals may not add due to rounding.

Billing and Collections

All wastewater service customers are billed by the District bimonthly for dry weather user charges, with the exception of the 450 largest accounts, which are billed monthly. Billing is staggered throughout the billing cycle by geographic location. Water service may be discontinued if an overdue wastewater account is not paid after appropriate customer notification.

The District considers its rates of payment delinquency, service discontinuance for non-payment and write-offs for uncollectible accounts to be low by wastewater industry standards for urban areas. Following retention of a new collection vendor and implementation of a new delinquent payment process, write-offs for uncollectible revenues have been further reduced. Write-offs for uncollectible accounts for the last five Fiscal Years are set forth in Table 10.

Table 10
WASTEWATER CHARGES UNCOLLECTIBLE REVENUES
Last Five Fiscal Years

Fiscal Year Ended June 30	Uncollectible Revenues	Percent of Gross Billings			
2012	\$414,605	0.57%			
2013	479,215	0.63			
2014	363,290	0.45			
2015	272,758	0.42			
2016	193,404	0.29			

Source: The District.

As described above, beginning in Fiscal Year 2016, wet weather facilities charges are assessed annually based on lot size. In prior years wet weather facilities charges were annual per dwelling unit per parcel charges. Wet weather facilities charges are collected by Alameda and Contra Costa County on the property tax bill and remitted to the District. Unpaid charges may become a lien on the property.

Wastewater Capacity Fees

The District assesses a Wastewater Capacity Fee on each new Wastewater System customer or each existing Wastewater System customer that increases demand for treatment processing on or after July 1, 1984, measured in wastewater volume and strength. The Wastewater Capacity Fee is a one-time charge based on the maximum monthly wastewater volume and average strength. In 2013, the Board approved a change in the Wastewater Capacity Fee calculations. These changes were made in order to address the recognition that the District's ultimate build-out scenario now projects lesser demand growth than previously assumed. This change resulted in a 60% increase in the calculated Wastewater Capacity Fee, which is being phased-in over five years beginning in Fiscal Year 2014. In Fiscal Year 2016, the Wastewater Capacity Fee for a single family residence was \$1,860. The fees for 2-4 units were \$1,860 times the number of dwelling units. For Fiscal Year 2017, the Wastewater Capacity Fee for single family residence increased to \$2,150. The fees for 2-4 units are \$2,150 times the number of dwelling units. The Wastewater Capacity Fee for other applicants is based on an analysis of the applicant's expected wastewater treatment needs.

Resource Recovery Revenues

As described under "THE WASTEWATER SYSTEM – Resource Recovery," the District accepts truck waste from outside its Wastewater System service area for disposal at the Main Wastewater Treatment Plant through its resource recovery program. Waste generators interested in disposing of trucked waste at the District's facilities are required to obtain a permit from the District (either directly or by utilizing an approved hauler possessing a District permit). Tipping fees are charged by the District for waste streams delivered by truck for disposal based upon type of waste and volume or weight. Types of customers include chicken processors, dairies, wineries, breweries, and industrial wastewater brokers and haulers. The District has approximately 190 permit holders bringing in both regular deliveries such as chicken blood or dairy brine and one time projects from industrial facility clean-outs.

In Fiscal Year 2016, total resource recovery programs revenues received by the District from tipping fees totaled \$11.6 million. For budgeting purposes, the District assumes resource recovery program revenues will be less in future years than currently generated due to increased competition from wastewater facilities that are beginning trucked waste acceptance programs that will be located closer to waste generators.

Property Tax Revenues

The District's share of the countywide 1% ad valorem property tax levy allocated to Special District No. 1 has provided approximately 4% to 5% of the revenues of the Wastewater System in each of the past five Fiscal Years for the District. The District's share of the countywide 1% ad valorem property tax levy allocated to Special District No. 1 is not pledged as a source of payment for the Wastewater System Revenue Bonds, although such amounts are applied to pay Wastewater Operation and Maintenance Costs in accordance with the Indenture. Beginning in Fiscal Year 1995-96, the District exercised the authority to impose an additional ad valorem tax levy to pay debt service on its outstanding Wastewater System general obligation bonds.

Table 11 shows a five-year record of assessed valuations, secured roll levies and delinquencies for the taxable property included within Special District No. 1. Assessed valuations are expressed by county assessors as "full cash value" as defined by Article XIIIA of the State Constitution. The tax levy shown includes both the District's allocated share of the maximum *ad valorem* tax levy by each county of 1% of full cash value and the *ad valorem* tax levy imposed to pay debt service on the District's outstanding Wastewater System general obligation bonds.

Pursuant to California Revenue and Taxation Code Sections 4701 *et seq.*, Contra Costa County and Alameda County each maintain a reserve fund for the purpose of guaranteeing 100% of the secured levies of the electing governmental jurisdictions for which such county collects taxes (commonly referred to as the "Teeter Plan"). The District has elected to participate in Contra Costa County's Teeter Plan program but has elected not to participate in Alameda County's Teeter Plan program. Consequently, the District is exposed to the effect of delinquencies in collections only for property located in Alameda County.

A Teeter Plan remains in effect unless the board of supervisors of the county that has established a Teeter Plan orders its discontinuance or unless, prior to the commencement of any fiscal year of such county, such board of supervisors receives a petition for its discontinuance joined in by a resolution adopted by at least two-thirds of the participating revenue districts within the county, in which event the such board of supervisors is to order the discontinuance of the Teeter Plan effective at the commencement of the subsequent fiscal year. If the Board of Supervisors of the Contra Costa County, or in the event that the District elects to participate in Alameda County's Teeter Plan, the Board of Supervisors of Alameda

County, is to order the discontinuance of the Teeter Plan, only those secured property taxes actually collected would be allocated to political subdivisions (including the District) for which such county acts as the tax-levying or tax-collecting agency.

Table 11
TAXABLE PROPERTY WITHIN THE WASTEWATER SYSTEM
Assessed Valuation and Tax Collection Record

	Fiscal Year Ending June 30									
		2012		2013		2014		2015		2016
Assessed Valuation for Taxation Purposes ⁽¹⁾⁽²⁾										
Alameda County	\$71	,934,582,382	\$75	,005,826,233	\$79	,134,556,452	\$85	,882,609,820	\$91	,776,237,397
Contra Costa County	4	,216,260,569	4	,436,844,975	_4	,842,733,668	5	,290,848,742	5	,674,452,805
Total	\$76,	150,842,951	\$79	,442,671,208	\$83	,977,290,120	\$91	,173,458,562	\$97	,450,690,202
Secured Roll Tax Levy ⁽³⁾										
Alameda County	\$	7,747,832	\$	8,824,314	\$	8,611,620	\$	7,910,988	\$	7,400,912
Contra Costa County		558,780		583,897		1,269,429		557,382	_	537,689
Total	\$	8,306,612	\$	9,408,211	\$	9,881,049	\$	8,468,370	\$	7,938,601
Delinquent June 30 ⁽⁴⁾										
Amount	\$	214,184	\$	172,212	\$	143,118	\$	109,278	\$	112,750
Percent		2.58%		1.83%		1.45%		1.27%		1.42%

⁽¹⁾ 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.

Sources: Auditor-Controller's Office, Alameda and Contra Costa Counties, as compiled by the District.

Historically, from time to time, legislation was enacted as part of the State budget to provide for the reallocation of local governments' shares of the countywide 1% ad valorem tax, including by shifting a portion of the property tax revenues collected by the counties from special districts (such as the District) to school districts or other governmental entities. Subsequently, certain amendments to the State Constitution have been enacted to reduce the State Legislature's authority over local revenue sources by placing restrictions on, among other things, the State's access to local governments' property tax revenues. For example, on November 2, 2004 voters within the State approved Proposition 1A, which prevented the State from reducing local government's share of the 1% ad valorem property tax below levels in effect as of November 3, 2004, except in the case of fiscal emergency. Proposition 1A provided that in the case of fiscal emergency, the State could borrow up to 8% of local property tax revenues to be repaid within three years. Following the exercise by the State of its authority to borrow such local property tax revenues as part of the 2009-10 State budget act, on November 2, 2010, voters within the State approved Proposition 22, which prohibits any future action by the State Legislature to take, reallocate or borrow money raised by local governments for local purposes, and prohibits changes in the allocation of property taxes among local governments to aid State finances or pay for State mandates. Proposition 22 thereby effectively repealed the provisions of Proposition 1A allowing the State to borrow local property tax revenues from local governments, and prohibits any such future borrowing.

⁽²⁾ Minor differences in assessed valuation numbers from amounts previously reported can occur from time to time due to a change in source data used.

⁽³⁾ Net basis excluding all exemptions. Levies reflect the tax reductions effected by the adoption of Article XIIIA of the State Constitution in 1978, the "Jarvis-Gann Initiative." Includes ad valorem tax levied for repayment of Special District No. 1's general obligation bonds. For Alameda County, receipts include the 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 based on the two counties' secured roll levies.

There can be no assurances that legislation or voter initiatives enacted or approved in the future will not reduce or eliminate the District's share of the 1% countywide *ad valorem* property tax revenues. See also "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS."

The tax rolls for property located within the District's Wastewater System service area for the Fiscal Year ended June 30, 2016, aggregated a total assessed valuation of approximately \$97.5 billion, including redevelopment project areas incremental valuations of which the taxes payable were due to the redevelopment agency. In 2011, the State enacted legislation commonly referred to as "AB1X 26," which required the dissolution of California redevelopment agencies and the dissolution and winding up of the operations of those agencies, which dissolution occurred on February 1, 2012. AB1X 26 provides a framework for the management of the remaining obligations of the dissolved redevelopment agencies by their respective successor agencies and oversight boards to oversee those successor agencies. Pursuant to AB1X 26, tax increment will continue to flow to the payment of "enforceable obligations" (such as tax allocation bonds) of the dissolved redevelopment agencies.

Grants and Reimbursements

The District periodically receives grants for specific projects. In addition, the District from time to time receives certain reimbursements for capital costs, primarily in connection with facility relocations. In Fiscal Year 2016, the District collected approximately \$324,000 in grants and reimbursements for the Wastewater System. Approximately \$200,000 in grants and reimbursements is estimated to be received by the District in Fiscal Year 2017. Grant receipts and facility relocation reimbursements budgeted for Fiscal Years 2018 and 2019 are \$100,000 and \$100,000, respectively. Grants and facility relocation reimbursements received are treated as capital contributions and are not included in Subordinated Wastewater Revenues for purposes of the Indenture.

Operation and Maintenance Costs

The primary component of the District's Wastewater System Operation and Maintenance Costs is labor costs, including wages, salaries and benefits. Operation and Maintenance Costs also include materials, supplies and services such as treatment chemicals and sludge disposal costs, and other general and administrative expenses.

Outstanding Debt

Table 12 shows Wastewater System debt outstanding as of May 1, 2017. As provided in the Municipal Utility District Act, prior to the exercise by the District of its power to issue Wastewater System revenue bonds, a preliminary resolution is adopted by the Board declaring its intention to authorize the issuance of revenue bonds and specifying, among other things, the maximum principal amount of bonds then proposed to be issued (excluding refunding bonds) pursuant to such resolution. As of May 1, 2017 (and prior to the issuance of the Series 2017 Bonds), the District has \$204,360,000 of authorized but unissued Wastewater System revenue bonds, including (i) \$4,360,000 of remaining authorized but unissued Wastewater System revenue bonds under Resolution No. 33607-07 adopted on June 12, 2007, pursuant to which the Board declared its intention to authorize the issuance of up to \$100,000,000 of Wastewater System revenue bonds, from time to time in one or more series, and (ii) \$200,000,000 of authorized but unissued Wastewater System revenue bonds under Resolution No. 33781-10 adopted on September 14, 2010, pursuant to which the Board declared its intention to authorize the issuance of up to \$200,000,000 of Wastewater System revenue bonds, from time to time in one or more series. The issuance of revenue bonds by the District is not subject to prior voter approval, although such resolutions of intention to authorize the issuance of bonds are subject to a 60-day

referendum period (which, with respect to Resolution Nos. 33607-07 and 33781-10, expired without challenge). The District may from time to time in the future adopt other resolutions authorizing the issuance of additional Wastewater System Revenue Bonds, subject to the satisfaction of the conditions set forth in the Indenture. See "SECURITY FOR THE SERIES 2017A BONDS – Issuance of Additional Wastewater System Revenue Bonds and Parity Debt; Junior and Subordinate Obligations."

From time to time, the District applies for and is granted loan funds from the SWRCB under the Clean Water State Revolving Fund loan program. The SWRCB loans ("State Loans") are low-interest loans made by the SWRCB to fund various water quality infrastructure projects. The District may in the future apply for additional State Loans. The SWRCB requires all future debt issued by agencies involved in loan contracts under the Clean Water State Revolving Fund loan program to be issued on a parity with or subordinate to the State Loans. The District currently has no outstanding State Loans for the Wastewater System. Any future State Loans would likely constitute Parity Debt under the Indenture.

Pursuant to the authority of the Municipal Utility District Act, the Board has declared its intention to authorize the issuance of short-term indebtedness of the District (which may include commercial paper notes and/or other forms of bonds, notes or other evidences of short-term indebtedness, including bank credit) in a maximum outstanding principal amount not exceeding the lesser of (1) the annual average of the District's total revenue for the three preceding years or (2) 25% of the District's total outstanding bonds issued pursuant to Chapters 6, 7 and 8 of the Municipal Utility District Act. The District has determined the maximum authorized principal amount of short-term indebtedness (including short-term indebtedness of the Water System and the Wastewater System) pursuant to the above limit to be an amount not to exceed \$554,000,000 as of June 30, 2016. The District currently maintains two commercial paper note programs for the benefit of the Wastewater System and the District's Water System. Under the extendable municipal commercial paper program, commercial paper may be issued for the Wastewater System or the Water System 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. Under the District's traditional commercial paper program, commercial paper notes may be issued for the Wastewater System or the Water System at prevailing interest rates for periods of not more than 270 days from the date of issuance. In connection with its traditional commercial paper program, the District has covenanted to procure and maintain in effect for any series or subseries of commercial paper notes issued thereunder one or more liquidity facilities enabling it to borrow an aggregate amount at least equal to the principal amount of such series or subseries of commercial paper notes. As of May 1, 2017, the District had outstanding \$374,800,000 principal amount of commercial paper notes, including \$15,000,000 of Tax-exempt Extendable Municipal Commercial Paper Notes (Wastewater Series) ("Wastewater System CP Notes") issued under the District's extendable municipal commercial paper program. As of May 1, 2017, the District had no Commercial Paper Notes (Wastewater Series) issued under the District's traditional commercial paper program. The Wastewater System CP Notes, together with any additional commercial paper notes issued by the District for the benefit of the Wastewater System under either the District's extendable municipal commercial paper program or its traditional commercial paper program (and the District's repayment obligation for amounts borrowed, if any, under any applicable liquidity facility therefor), are payable from and secured by a pledge of Wastewater Revenues on a basis subordinate to the Wastewater System Revenue Bonds and Parity Debt.

The General Obligation Wastewater Pollution Control Bonds were authorized by voters in November 1970. All of the \$60,000,000 Wastewater Pollution Control Bonds (the "General Obligation Bonds") that were authorized have been issued. The General Obligation Bonds are secured by the power and obligation of the District to levy *ad valorem* taxes upon property within the District's Special District No. 1, subject to taxation therefor, without limitation of rate or amount.

Table 12 **OUTSTANDING WASTEWATER SYSTEM DEBT** As of May 1, 2017

	Date of Issue	Last Maturity	Amount Issued	Outstanding May 1, 2017
Wastewater System Revenue Bonds:				
Revenue Refunding Bonds, Series 2007B ⁽¹⁾	06/06/07	06/01/26	\$ 46,670,000	\$ 26,920,000
Revenue/Refunding Bonds, Series 2010A ⁽²⁾	10/20/10	06/01/29	58,095,000	44,295,000
Revenue Bonds, Series 2010B	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	76,310,000
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	2,635,000
Total Wastewater System Revenue Bonds			\$428,080,000	\$388,530,000
Subordinate Debt:				
Commercial Paper Notes (Wastewater Series)	Various	Various	$15,000,000^{(3)}$	15,000,000
General Obligation Bonds:				
Refunding Series G	02/27/14	04/01/18	14,160,000	7,345,000
Total Debt			\$457.240.000	\$410,875,000
Total Debt			<u> </u>	<u>\$410,873,000</u>

The Series 2007B Bonds remaining outstanding are expected to be refunded in connection with the issuance of the Series

Debt Service Requirements

Table 13 shows future payments on outstanding debt.

²⁰¹⁷A Bonds. See "PLAN OF FINANCE" in the front part of this Official Statement.

A portion of the outstanding Series 2010A Bonds are expected to be refunded in connection with the issuance of the Series 2017A Bonds. See "PLAN OF FINANCE" in the front part of this Official Statement.

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

 $\label{eq:Table 13} \textbf{WASTEWATER SYSTEM ESTIMATED DEBT SERVICE}^{(1)}$

Wastewater System Revenue Bonds – Series 2007B Through Series 2015B⁽²⁾

	Series 2	200/B Inrough Series	2015B(2)		Wastewater	General	
Fiscal Year		(2)		Series 2017A	System	Obligation	(6)
Ending June 30	Principal	Interest ⁽³⁾	Total	Bonds	CP Notes (4)	Bonds ⁽⁵⁾	Total Debt Service ⁽⁶⁾
2017	\$ 9,825,000	\$ 19,274,228	\$ 29,099,228		\$ 75,000	\$4,126,950	\$ 33,301,178
2018	10,275,000	18,855,898	29,130,898		375,000	3,620,450	33,126,348
2019	10,675,000	18,442,823	29,117,823		375,000		29,492,823
2020	11,185,000	17,940,008	29,125,008		450,000		29,575,008
2021	11,665,000	17,439,288	29,104,288		450,000		29,554,288
2022	12,220,000	16,860,413	29,080,413		450,000		29,530,413
2023	12,790,000	16,253,913	29,043,913		450,000		29,493,913
2024	13,360,000	15,649,373	29,009,373		450,000		29,459,373
2025	13,980,000	14,985,443	28,965,443		450,000		29,415,443
2026	14,625,000	14,290,733	28,915,733		450,000		29,365,733
2027	14,285,000	13,562,783	27,847,783		450,000		28,297,783
2028	14,300,000	12,851,915	27,151,915		450,000		27,601,915
2029	15,030,000	12,140,380	27,170,380		450,000		27,620,380
2030	15,750,000	11,394,114	27,144,114		450,000		27,594,114
2031	16,305,000	10,607,489	26,912,489		450,000		27,362,489
2032	16,795,000	9,789,252	26,584,252		450,000		27,034,252
2033	17,620,000	8,946,369	26,566,369		450,000		27,016,369
2034	18,505,000	8,055,736	26,560,736		450,000		27,010,736
2035	19,410,000	7,123,209	26,533,209		450,000		26,983,209
2036	20,360,000	6,145,044	26,505,044		450,000		26,955,044
2037	21,345,000	5,118,983	26,463,983		450,000		26,913,983
2038	24,365,000	4,043,250	28,408,250		450,000		28,858,250
2039	26,250,000	2,787,794	29,037,794		450,000		29,487,794
2040	27,610,000	1,429,094	29,039,094		450,000		29,489,094
2041							
2042							
2043							
2044							
2045							
2046							
2047							
Total ⁽⁶⁾	\$388,530,000	\$283,987,526	\$672,517,526		\$10,275,000	\$7,747,400	\$690,539,926

⁽¹⁾ Debt service is calculated on a cash basis.

Source: The District.

⁽²⁾ Includes Refunded Bonds.

Includes gross interest payable before application of any cash subsidy received by the District from the United States Treasury relating to the Series 2010B Bonds ("BABs Interest Subsidy Payments"). Upon the issuance of the Series 2017A Bonds and the effective date of the amendments to the Indenture pursuant to the Thirteenth Supplemental Indenture, the BABs Interest Subsidy Payments reasonably expected to be received by the District will be treated as an offset to debt service on the Series 2010B Bonds for purposes of the Indenture. See "SECURITY FOR THE 2017A BONDS – General – Amendments to the Indenture" in the front part of this Official Statement.

Assumes \$15,000,000 outstanding at assumed interest rate of 0.50% in Fiscal Year 2017, 2.50% in Fiscal Years 2018 and 2019, and 3.00% thereafter. Includes interest only (no principal amortization). While the commercial paper program is limited by statute to seven years, it is the District's intention to reestablish the commercial paper program after each seven-year period. The District may increase the amount of the commercial paper program in the future subject to the limit described herein.

⁽⁵⁾ General obligation bonds are paid from ad valorem property taxes levied for such purpose, not Wastewater Revenues.

⁽⁶⁾ Totals may not add due to rounding.

Financial Management Policies

The District has detailed management policies that include guidelines for debt, capital planning, investments, derivatives, and formal reserves. It is the current policy of the District to seek to maintain a debt service coverage ratio of 1.6 times on its outstanding Wastewater System Revenue Bonds and to fund no more than 65% of its capital program over each five-year planning period from proceeds of debt. The debt policy also limits unhedged variable rate debt to 25% of the total debt portfolio. Derivatives use is governed by a comprehensive derivatives policy with guidelines for counterparties, termination, and risk exposure. The District budgets for a number of formal reserves for the Wastewater System, including: (i) a working capital reserve equal to three months of operation and maintenance expenses; (ii) a self-insurance reserve equal to 1.25 times the expected annual expenditure; (iii) a workers' compensation reserve of approximately \$0.6 million in Fiscal Year 2016; and (iv) a contingency/rate stabilization reserve (which is included in the Rate Stabilization Fund) of at least 5% of operating and maintenance expenses. The aggregate budgeted reserves level for Fiscal Year 2016 for these four formal reserves for the Wastewater System was approximately \$42.8 million, which amount the District maintained in accordance with its reserve policies. The current investment policy dictates investment criteria, reporting, and administrative requirements.

District Investment Policy

Funds of the District are invested in accordance with the Government Code of the State, the Municipal Utility District Act and the District's investment policy. The four primary investment criteria set forth in the District's written investment policy are (in order of priority): (1) preservation of principal; (2) maintenance of liquidity; (3) yield; and (4) diversity. In order to keep funds available to meet commitments, the District's investment policy provides that the maturity date (or put provision) of individual investments shall not exceed five years and that the average maturity of the portfolio shall not exceed 720 days. Investments permitted by the District's current investment policy include U.S. Treasury notes, bonds and bills, the State of California Local Agency Investment Fund, obligations issued by federal agencies and commercial paper rated in the highest short-term rating category, as well as collateralized repurchase agreements, certificates of time deposit and negotiable certificates of deposit, medium term corporate notes, California municipal bonds, and the California Asset Management Program. Monies in the funds and accounts held by the Trustee under the Indenture may be invested only in Investment Securities, as defined therein. The District does not enter into reverse repurchase agreements or otherwise borrow for purposes of investing, and the District does not invest in derivatives. The District has, however, entered into interest rate swap transactions to hedge interest rate exposure on outstanding variable rate Water System Revenue Bonds as described herein.

Pursuant to the District's investment policy, all securities purchased from dealers and brokers are held in safekeeping by the trust department of a state or national bank on a payment vs. delivery basis. Collateral is delivered or assigned under a tri-party agreement for all repurchase agreements. Trade confirmations are reviewed for conformity to the original transaction by an individual other than the one who originated the transaction. Transactions are ratified by the General Manager and reported quarterly to the Finance/Administration Committee of the Board.

Cash and Investments

The District's cash and investments are segregated by restricted and unrestricted amounts. Restricted cash and investments generally include bond proceeds and debt service reserve funds, developer advances and capital contributions, and other miscellaneous restricted amounts. At June 30, 2016, the breakdown between restricted and unrestricted amounts for the Wastewater System is as follows:

Table 14 WASTEWATER SYSTEM CASH AND INVESTMENTS (Thousands)

Cash and investments included in current and	\$86,983
unrestricted assets	
Cash and investments included in restricted assets	18
Total cash and investments	<u>\$87,001</u>

Source: The District.

See also "– Cash and Investments by Fund" in the Management's Discussion and Analysis included in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015." Additional information regarding the District's investment portfolio may also be found in Note 2 in the District's financial statements included in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

Insurance

The District uses a combination of self-funding/self-insuring and insurance coverage in the District's risk management program. The program provides protection for the District's buildings and facilities, including their contents and equipment, from fire, explosion and related perils, including flood. The District's insurance program does not currently include earthquake coverage. The District self-insures for liability claims up to \$10 million for bodily injury and property damage that may arise from the District's water and wastewater operations, including but not limited to use of its property, facilities or vehicles.

The District maintains a reserve of approximately \$10 million that is earmarked to pay both liability and workers' compensation claims that may arise from the District's water and wastewater systems' operations. See also "WASTEWATER SYSTEM FINANCES – Financial Management Policies."

Selected insurance coverages include the following:

- \$90 million of commercial general and automobile liability insurance, subject to a \$10 million per occurrence self-insured retention for both the Water System and the Wastewater System;
- Statutory limits of excess workers' compensation coverage, subject to a \$5 million selfinsured retention for both the Water System and the Wastewater System;

- \$200 million in coverage for "all risk" property insurance, subject to a \$500,000 deductible, with exclusions including, but not limited to, earthquake, dams, reservoirs, under- and above-ground pipes and aqueducts;
- \$25 million per occurrence/annual aggregate in coverage for flood perils, subject to a \$1.5 million minimum deductible per occurrence/annual aggregate, with the same exclusions as under the "all risk" policy described above other than above-ground aqueducts for which \$2.5 million in coverage is provided; the policy also provides a flood sublimit of \$10 million per occurrence/annual aggregate for losses wholly or partially within the areas of 100-year flooding as defined by FEMA with a deductible of 5% of the total insurable property values at the time of the loss at each location involved in the loss or a minimum deductible of \$1.5 million;
- \$10 million in coverage for boiler and machinery insurance, subject to a \$25,000 deductible (except for Pardee Dam, Camanche Dam and the Main Wastewater Treatment Plant, for which a \$50,000 deductible applies); and
- \$10 million in coverage for crime insurance for protection against fraudulent acts of employees, subject to a \$25,000 deductible.

Historical Operating Results

The District's financial statements for Fiscal Year 2016, and the Report of Maze & Associates, independent accountants, are included as Appendix B, and should be read in their entirety. The summary of operating results for Fiscal Years 2012 through 2016 contained in Table 15 is derived from information from the audited financial statements for such Fiscal Years and is qualified in its entirety by reference to such statements, including the notes thereto.

Table 15 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. The presentation below differs from that previously reported in that Wastewater Capacity Fees previously excluded are now reflected as a component of Wastewater Revenues for purposes of the coverage calculation as permitted by the Indenture.

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Table 15
WASTEWATER SYSTEM
Historical Operating Results and Debt Service Coverage⁽¹⁾
Fiscal Years 2012 through 2016

(2)	2	2012		2013	2014			2015		2016
WASTEWATER REVENUES ⁽²⁾										
Dry Weather User Charges		191,460		3,783,692	\$61,774,5			5,107,788		5,916,031
Wet Weather Facilities Charges	,	228,380	18	3,320,550	19,388,9		21	,809,317	2	1,918,034
Interest		856,218		368,315	223,6			271,736		359,743
Resource Recovery		061,029		,226,468	10,570,19			,309,181		1,625,497
Wastewater Capacity Fees		824,137		,278,961	805,59			2,785,820		3,142,514
Other Revenue ⁽³⁾		<u>507,474</u>		,061,513	6,315,0	_		5,558,340		5,168,719
TOTAL WASTEWATER REVENUE	\$88,	668,698	\$92	2,039,499	\$99,078,0	51	\$106	5,842,182	\$10	8,130,538
RATE STABILIZATION FUND TRANSFERS										
Deposits to the Rate Stabilization Fund Withdrawals from Rate Stabilization Fund	\$	0	\$	0	\$(2,590,00	00)	\$(6,	,500,000)	\$	0
for Inclusion in Revenues WASTEWATER REVENUES AFTER		0		0		0		0		0
RATE STABILIZATION TRANSFER	<u>\$88,</u>	668,698	<u>\$92</u>	2,039,499	\$96,488,0	<u>51</u>	\$100	0,342,182	<u>\$10</u>	8,130,538
WASTEWATER OPERATION & MAINTENANCE COSTS										
Operating Expenses	\$52,	482,539	\$51	,435,631	\$55,318,8	73	\$ 55	5,336,812	\$ 5	5,331,260
(Less Tax Receipts) ⁽⁴⁾	(3,	698,069)	(4	<u>,413,039)</u>	(4,530,4	<u>89)</u>	_(3	3 <u>,979,783)</u>	(-	4,640,025)
TOTAL WASTEWATER OPERATION										
& MAINTENANCE COSTS	<u>\$48,</u>	784 <u>,470</u>	\$47	,022,592	\$50,788,3	<u>84</u>	\$ 51	1,357,029	\$ 5	0,691,235
NET WASTEWATER REVENUES	\$39,	884,228	\$45	5,016,907	\$45,699,6	67	\$ 48	3,985,153	\$ 5	7,439,303
PARITY DEBT SERVICE										
Wastewater System Revenue Bonds ⁽⁵⁾	\$26,	385,738	\$28	3,284,129	\$28,559,2	57	\$ 27	7,976,848	\$ 2	9,068,988
Parity State Loans		0		0		0		0		0
TOTAL PARITY DEBT SERVICE	<u>\$26,</u>	385,738	\$28	3,284,129	\$28,559,2	<u>57</u>	\$ 27	7,976,848	\$ 2	9,068,988
PARITY DEBT SERVICE COVERAGE		1.51		1.59	1.6	60		1.75		1.98
SUBORDINATE WASTEWATER SYSTEM DEBT SERVICE $^{(6)}$	\$	33,300	\$	33,910	\$ 20,1	16	\$	14,342	\$	22,543
TOTAL PARITY AND SUBORDINATE DEBT SERVICE	\$26,	419,038	\$28	3,318,039	\$28,579,3	73	\$ 27	7,991,190	\$ 2	9,091,531
PARITY AND SUBORDINATE DEBT SERVICE COVERAGE		1.51		1.59	1.6	50		1.75		1.97

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

Source: The District.

Wastewater Revenues exclude grant receipts, taxes and certain reimbursements.

Other Revenues includes BABs Interest Subsidy Payments received in connection with Series 2010B Bonds. In Fiscal Years 2012 through 2016, Other Revenues also includes revenues received from the sale of energy to the utility grid of \$333,812, \$693,272, \$1,099,418, \$1,092,911 and \$1,246,360, respectively. See "THE WASTEWATER SYSTEM – Power Generation/Energy Recovery."

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.

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.

⁽⁶⁾ Includes outstanding Wastewater System commercial paper notes. Includes interest only on commercial paper notes with no principal amortization.

District Management's Discussion of Fiscal Year 2016 Operating Results

Wastewater Revenues increased approximately \$1.3 million from \$106.8 million in Fiscal Year 2015 to \$108.1 million in Fiscal Year 2016, reflecting a stable customer base, supplemented by continued growth in resource recovery revenues. Other Revenue includes approximately \$2.5 million in interest subsidy in both Fiscal Years 2015 and 2016 received in connection with the District's Series 2010B Bonds (Build America Bonds). Operation and Maintenance Costs decreased from approximately \$51.3 million in Fiscal Year 2015 to \$50.6 million in Fiscal Year 2016, partially due to lower labor costs as a result of higher vacancies.

Net Wastewater Revenue increased from approximately \$49.0 million in Fiscal Year 2015 to \$57.4 million in Fiscal Year 2016. Net Wastewater Revenue in Fiscal Year 2015 reflects the deposit of \$6.5 million to the Rate Stabilization Fund reserves for such Fiscal Year.

Parity lien debt service coverage in Fiscal Year 2016 was approximately 1.98 times, above the District's policy level target of 1.60, and reflecting strong financial results. Debt service coverage in Fiscal Year 2016 shows a continuing increase from the prior four fiscal years' coverage levels of 1.51 times in Fiscal Year 2012, 1.59 times in Fiscal Year 2013, 1.60 times in Fiscal Year 2014, and 1.75 times in Fiscal Year 2015. In Fiscal Year 2011, in order to realize debt service savings, the District refinanced approximately \$17.5 million of its outstanding State Loans with Wastewater System Revenue Bonds. Although debt service costs were reduced as a result of such refinancing, the annual debt service cost of certain of these State Loans that were previously treated as subordinate debt was elevated to a parity lien position as a result of the refunding, negatively impacting the parity lien debt service coverage level and resulting in coverage below the District's policy target of 1.6 times in Fiscal Years 2012 and 2013. This impact was overcome in Fiscal Years 2014 and 2015 as a result of the strong financial results, allowing the District to attain a 1.6 times debt service coverage level, as well as make the \$2.6 million in Fiscal Year 2014 and \$6.5 million in Fiscal Year 2015 deposits to the Rate Stabilization Fund. The Rate Stabilization Fund deposit provides the District with a tool to maintain stable revenues and policy level coverage in future years.

See also "Management's Discussion and Analysis" contained in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."

Projected Operating Results

In the preparation of the projections in this section, the District has made certain assumptions with respect to conditions that may occur in the future. While the District believes these assumptions are reasonable for the purpose of the projections, they are dependent on future events, and actual conditions may differ from those assumed. To the extent actual future factors differ from those assumed by the District or provided to the District by others, the actual results will vary from those forecasted. This projected information has not been compiled, reviewed or examined by the District's independent accountants.

Table 16 sets forth the projected operating results and calculation of the debt service coverage ratios for the Wastewater System for the current and next five Fiscal Years. Projected results for Fiscal Year 2017 were originally developed in connection with the District's biennial budget for Fiscal Years 2015 and 2016, and were subsequently updated in connection with the District's semi-annual budget performance review to reflect actual results experienced through December 31, 2016 and expectations as of such date for the remainder of Fiscal Year 2017. Projected results for Fiscal Year 2018 through 2022 were developed in connection with the District's proposed biennial budget for Fiscal Years 2018 and 2019; they have not yet been approved by the Board. The District's proposed biennial budget and rate

increases for Fiscal Years 2018 and 2019 are scheduled for consideration for adoption by the Board on [June 13], 2017. In the preparation of the projected operating results, the District has taken into account limited growth in the service area and the expectations for the future economic environment. See also "– Discussion of Projected Operating Results for Fiscal Year 2017" and "– Discussion of Budget Projections for Fiscal Years 2018 through 2022" below.

The projection period reflects the proposed overall rate increases of 5.0% and 5.0% for Fiscal Years 2018 and 2019, respectively. Annual rate increases of 4.0%, 4.0% and 4.0% are assumed for Fiscal Years 2020, 2021 and 2022, respectively. Any such rate increases will be subject to Board approval. Projected Operating Expenses incorporate salary and benefit expectations.

The District's biennial budget for Fiscal Years 2016 and 2017 included a budget forecast for Fiscal Years 2016 through 2020 and rate increases for Fiscal Years 2016 and 2017. The biennial budget for Fiscal Years 2016 and 2017 was approved by the Board on June 9, 2015. The proposed biennial for Fiscal Years 2018 and 2019 includes a budget forecast of projected operating results covering the five Fiscal Years 2018 through 2022. The proposed biennial budget for Fiscal Years 2018 and 2019 was presented to the Board on April 11, 2017, and is scheduled for consideration for adoption by the Board on [June 13,] 2017. No assurance can be given that the proposed biennial budget for Fiscal Years 2018 and 2019 will be adopted in its current form.

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Table 16 WASTEWATER SYSTEM Projected Operating Results and Debt Service Coverage (Millions) Fiscal Years 2017 through 2022

Proposed FY 2018 and 2019 Budget Five-Year Financial Forecast

	$2017^{(1)}$	$2018^{(2)}$	$2019^{(2)}$	$2020^{(2)}$	2021 ⁽²⁾	$2022^{(2)}$
WASTEWATER REVENUES(3)						
Dry Weather User Charges ⁽⁴⁾	\$ 70.0	\$ 73.3	\$ 76.9	\$ 80.6	\$ 83.8	\$ 87.8
Wet Weather Facilities Charges ⁽⁴⁾	22.9	24.0	25.2	26.3	27.3	28.4
Interest Earnings ⁽⁵⁾	0.6	1.5	1.5	1.9	2.1	2.2
Resource Recovery	11.0	8.0	8.0	8.5	8.5	8.5
Wastewater Capacity Fees	3.5	1.8	1.9	1.9	2.0	2.1
Other Revenue ⁽⁶⁾	5.4	5.7	5.7	5.7	5.7	5.7
TOTAL WASTEWATER REVENUES	\$113.4	\$114.4	\$119.3	\$124.9	\$129.4	\$134.6
RATE STABILIZATION FUND TRANSFERS						
Deposits to the Rate Stabilization Fund	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
Withdrawals from Rate Stabilization Fund for Inclusion in revenues	0.0	0.0	0.0	0.0	0.0	0.0
WASTEWATER REVENUES AFTER RATE						
STABILIZATION TRANSFER	<u>\$113.4</u>	<u>\$114.4</u>	<u>\$119.3</u>	<u>\$124.9</u>	<u>\$129.4</u>	<u>\$134.6</u>
WASTEWATER OPERATION &						
MAINTENANCE COSTS	Φ 62.0	Φ 57.0	ф. с	Φ	Ф. 52. 1	4.54.4
Operating Expense ⁽⁷⁾	\$ 62.0	\$ 65.0	\$ 67.4	\$ 69.6	\$ 72.1	\$ 74.4
(Less Tax Receipts) ⁽⁸⁾	(4.2)	(4.8)	(4.9)	(5.1)	(5.2)	(5.3)
TOTAL WASTEWATER OPERATION & MAINTENANCE COSTS	\$ 57.3	\$ 60.2	\$ 62.5	\$ 64.5	\$ 66.9	\$ 69.2
NET WASTEWATER REVENUES	\$ 56.1	\$ 54.2	\$ 56.7	\$ 60.4	\$ 62.5	\$ 65.5
DEBT SERVICE						
Wastewater System Revenue Bonds ⁽⁹⁾	<u>\$ 29.1</u>	<u>\$ 30.5</u>	<u>\$ 31.4</u>	<u>\$ 32.3</u>	<u>\$ 33.1</u>	<u>\$ 33.4</u>
TOTAL PARITY DEBT SERVICE	\$ 29.1	\$ 30.5	\$ 31.4	\$ 32.3	\$ 33.1	\$ 33.4
PARITY DEBT SERVICE COVERAGE	1.93	1.78	1.81	1.87	1.89	1.96
SUBORDINATE WASTEWATER SYSTEM						
CP NOTES DEBT SERVICE ⁽¹⁰⁾	0.1	0.4	0.4	0.5	0.5	<u>0.5</u>
TOTAL PARITY AND SUBORDINATE	¢ 20.2	¢ 20.0	Ф 21.7	Ф 20.7	Ф 22.6	¢ 22.0
DEBT SERVICE	\$ 29.2	\$ 30.8	\$ 31.7	\$ 32.7	\$ 33.6	\$ 33.9
PARITY AND SUBORDINATE DEBT SERVICE COVERAGE	1.92	1.76	1.79	1.84	1.86	1.93

Fiscal Years 2017 projected results are based upon the District's biennial budget for Fiscal Years 2016 and 2017 which was approved by the Board on June 9, 2015, as subsequently updated in connection with the District's Fiscal Year 2017 semi-annual budget performance review to reflect actual results through December 31, 2016. See also "– Discussion of Projected Operating Results for Fiscal Year 2017" below.

(Table footnotes continued on following page.)

Fiscal Years 2018 through 2022 projected results are derived from the District's five-year financial forecast prepared in connection with the proposed biennial budget for Fiscal Years 2018 and 2019 which was presented to the Board on April 11, 2017. The biennial budget for Fiscal Years 2018 and 2019 is scheduled for consideration for adoption by the Board on [June 13], 2017.

Wastewater Revenues exclude grant receipts, taxes and certain reimbursements.

Reflects adoption of 5.0% average annual rate increase for Fiscal Year 2017, and assumes average annual rate increases of 5.0% in each of Fiscal Years 2018 and 2019 and 4.0% in each of Fiscal Years 2020, 2021 and 2022. See "CONSTITUTIONAL AND STATUTORY LIMITATIONS ON TAXES AND APPROPRIATIONS."

Assumes 1.00% earnings rate for Fiscal Year 2017, 2.00% earnings rate in Fiscal Years 2018 and 2019, and 2.50% earning rate thereafter. Excludes non-cash change in fair market value of investments.

(Footnotes to table continued from prior page.)

- Other Revenue includes estimated collections from power sales and inspection fees from the private sewer laterals program. Other Revenue also includes the anticipated receipt of BABs Interest Subsidy Payments relating to Series 2010B Bonds. In light of the potential effect on ongoing sequestration, the District has assumed cash receipts of approximately 33.25% of the interest payable on the Series 2010B Bonds (95% of the BABs Interest Subsidy Payments of 35% provided for under the American Recovery and Reinvestment Act of 2009). Upon the issuance of the Series 2017A Bonds and the effective date of the amendments to the Indenture pursuant to the Thirteenth Supplemental Indenture, the BABs Interest Subsidy Payments reasonably expected to be received by the District will no longer be treated as Other Revenue and instead will be treated as an offset to debt service on the Series 2010B Bonds for purposes of the Indenture. Treating the BABs Interest Subsidy Payments expected to be received by the District in Fiscal Years 2018, 2019, 2020, 2021 and 2022 as an offset to debt service as permitted by the Indenture (rather than as Other Revenue) would result in Parity Debt Service Coverage in each of such fiscal years as follows: Fiscal Year 2018: 1.85x, Fiscal Year 2019: 1.88x, Fiscal Year 2020: 1.94x, Fiscal Year 2021: 1.96x and Fiscal Year 2022: 2.04x.
- (7) Assumes approximately 3.2-3.8% annual increase in Operating Expenses.
- ⁽⁸⁾ Operation and Maintenance Costs excludes those expenses paid from District's share of 1% countywide *ad valorem* taxes. Under current District policy, taxes are used to pay for operations allocable to storm water processing and infiltration/inflow processing.
- Debt service on the Series 2010B Bonds is gross of the expected BABs Interest Subsidy Payments but net of capitalized interest. Assumes issuance of \$20.5 million of new money bonds in Fiscal Year 2018 and \$14 million in Fiscal Year 2019 at an annual interest rate of 5.00%.
- Assumes interest only at 0.50% per annum in Fiscal Years 2017, 2.50% per annum in Fiscal Years 2018 and 2019 and 3.00% per annum thereafter with no principal amortization. Assumes \$15.0 million of Wastewater System CP Notes outstanding.

Source: The District.

Discussion of Projected Operating Results for Fiscal Year 2017

Total Wastewater System revenues for Fiscal Year 2017 are projected to be \$113.4 million or \$2.4 million more than originally budget primarily due to higher than budgeted revenues for the Resource Recovery Program and Wastewater connection charges. Wastewater treatment revenues for Fiscal Year 2017 are projected to be \$70.0 million which is \$2.1 million less than budgeted due to the expectation that customers will maintain many of their conservation habits from the recent drought. Projected Fiscal Year 2017 operating expenses are projected to be \$57.3 million which is \$4.0 million less than budgeted, primarily attributable less spending on operating labor and avoided operating expenses from the decision to hold off on a planned major expansion of the Resource Recovery Program. If the current projections of revenues and expenditures are realized, the District would end Fiscal Year 2017 with a debt service coverage ratio of 1.93.

Discussion of Budget Projections for Fiscal Years 2018 through 2022

The five-year financial forecast for the period between Fiscal Years 2018 and 2022 is based on specified assumptions, reflected in the footnotes to Table 16 and outlined below. The first two years in the five-year financial forecast are based upon the District's two-year budget. The proposed biennial budget for Fiscal Years 2018 and 2019 was presented to the Board on April 11, 2017. The biennial budget for Fiscal Years 2018 and 2019 is scheduled for consideration for adoption by the Board on [June 13], 2017. In conjunction with the Board's consideration for adoption of the District's proposed biennial budget, the Board will consider for adoption proposed rate increases for Fiscal Years 2018 and 2019, following a public hearing on such proposed rate increases to be held on that date. See "– Rates and Charges" above.

Based upon the base budget assumptions outlined below, revenues are forecast to increase by 4.1% annually over the five-year period between Fiscal Years 2018 and 2022 while forecasted operating expenses are expected to grow by an average of approximately 3.5% per year and debt service increases by an average of 2.4% per year. Capital cash flow spending is projected at \$188 million over the five-year

period between Fiscal Years 2018 and 2022. Projected capital expenditures are directed at sustained reinvestments in physical infrastructure. Planned capital projects include treatment plant infrastructure improvements, interceptor rehabilitation, odor control improvements and digester upgrades.

The average percentage of capital funded from debt is projected at 35% over that period, lower than the financial policy maximum of 65%. Revenue bond debt service coverage is projected to meet or exceed the 1.6x policy target each year and increase annually throughout the period. In Fiscal Year 2018 revenue bond debt service coverage ratio is projected to be 1.78x. Debt service coverage is projected to increase steadily, with no further draws on the Rate Stabilization Fund reserve, to 1.81x, 1.87x, 1.89x and 1.96x in Fiscal Years 2019, 2020, 2021 and 2022, respectively. Reserve balances, including the Rate Stabilization Fund reserve, are projected to meet or exceed the policy reserve levels throughout the five-year period. Total reserves are projected at over \$77.0 million in each year, and the Rate Stabilization Fund reserve is projected to remain at \$24.1 million throughout the five-year projection period.

The five-year financial forecast for the period between Fiscal Years 2018 and 2022 is based on certain assumptions, which the District believes to be reasonable, incorporating among other factors a slight decrease in the volume of treatment flow due to lower water use in recent years. The assumed overall increases to treatment rates and wet weather charges for Fiscal Years 2018 and 2019 are 5.0% and 5.0%, respectively, consistent with the proposed budget and Proposition 218 notice. Lower overall rate increases of 4.0% per annum are assumed for Fiscal Years 2020, 2021 and 2022.

Employees' Retirement System

General. The District has a contributory retirement system covering substantially all of its employees (including the Water System and Wastewater System). The East Bay Municipal Utility District Employees' Retirement System ("Retirement System") was established in 1937 to administer a single-employer, contributory, defined benefit pension plan (the "Plan") to provide retirement, disability, survivorship and post-employment health insurance benefits ("HIB") for eligible directors, officers and employees of the District. The Plan is funded by contributions from its members and from the District, and from investment earnings on Plan assets. The payment of benefits earned by Plan members of the Retirement System is an obligation of the District. Employees of the District are also covered by Social Security.

The Retirement System is administered by a Retirement Board composed of three members appointed by the District Board, two members elected by and from the active membership and one (nonvoting) member elected by and from the retired membership of the Retirement System. Ordinance No. 40 of the District, effective October 1, 1937, as amended (the "Retirement System Ordinance"), assigns the authority to establish Plan benefit provisions to the District Board.

Contributions to the Retirement System are made by the members and the District. Each member's contribution is based upon a percentage of that member's covered compensation. The employee contribution rates for 1955/1980 Plan members (*i.e.*, employees first hired prior to January 1, 2013) are prescribed in the Retirement System Ordinance and may be adjusted by the District Board solely pursuant to the terms of a negotiated collective bargaining agreement or MOU with employee bargaining units. Pursuant to applicable provisions of the California Public Employees' Pension Reform Act of 2013 as codified ("PEPRA"), 2013 Tier members (*i.e.*, employees first hired on or after January 1, 2013) are required to contribute at least 50% of the "normal cost" rate (see "— *California Pension Reform Act*" below). The District employees' contribution rate for 1955/1980 Plan members (which includes a 0.09% contribution to the HIB) was increased from 6.83% to 7.33% effective April 22, 2013, to 7.83% beginning April 21, 2014, to 8.33% beginning April 20, 2015 and to 8.75% on April 18, 2016. The current District employees' contribution rate for 1955/1980 Plan members (including the 0.09% contribution to the HIB) is [8.75%] *[monitor for changes]*. The District employees'

contribution rate for 2013 Tier members (which also includes a 0.09% contribution to the HIB) is established by the District Board, and such rates are based upon actuarial valuations. The current District employees' contribution rate for 2013 Tier members (including the 0.09% contribution to the HIB) is 8.84%.

The District (employer) contributions are based upon percentages of the aggregate amount of members' covered compensation. Employer contribution percentages are established by the District Board. Such percentages are based upon actuarial valuations. The District's employer contribution percentage for 1955/1980 Plan members has been established at 43.22% for Fiscal Year 2016-17 (including a 5.51% contribution to the HIB) and has been established at 35.98% for 2013 Tier members (including a 5.06% contribution to the HIB). For Fiscal Year 2017-18, based upon the June 30, 2016 funding valuation reports prepared by the actuary, the recommended District employer contribution percentage for 1955/1980 Plan members is 43.18% (including a 5.26% contribution to the HIB) and is 36.16% for 2013 Tier members (including a 4.86% contribution to the HIB).

The June 30, 2016 funding valuation reports, which provide the recommended contribution rates for Fiscal Year 2017-18, were presented by the actuary to the Retirement Board at their January 19, 2017 meeting, at which time the reports were adopted by the Board.

The District estimates that approximately 85% of the District's annual contributions are attributable to the Water System and approximately 15% are attributable to the Wastewater System.

As of June 30, 2016, collectively for the Water and Wastewater Systems, there were 1,789 active (non-retired) Plan members, 248 terminated Plan members entitled to but not yet receiving benefits and 1,630 retirees and beneficiaries receiving benefits.

Table 17 sets forth the number of active (non-retired) members, total Plan assets, District and Member contributions and retirement allowances paid in the five Fiscal Years 2012 through 2016.

Table 17
RETIREMENT SYSTEM
Active (Non-Retired) Members, Total Plan Assets, District and Member Contributions and Allowances Paid
Five Fiscal Years Ended June 30, 2016⁽¹⁾

Fiscal Year Ended June 30	Active (Non-Retired) Members ⁽²⁾	Total Plan Assets ⁽³⁾	District Contribution ⁽⁴⁾	Member Contributions	Allowances Paid From Retirement Plan ⁽⁵⁾
2012	1,927	\$ 986,972,000	\$59,651,000	\$10,723,000	\$66,843,000
2013	1,898	1,124,328,000	61,567,000	10,566,000	72,095,000
2014	1,952	1,346,888,000	70,117,000	12,133,000	78,265,000
2015	2,001	1,407,209,000	73,141,000	13,427,000	85,184,000
2016	2,037	1,418,129,000	74,672,000	14,925,000	91,571,000

⁽¹⁾ Includes Health Insurance Benefit.

Source: The District.

⁽²⁾ Includes active plan members and terminated plan members entitled to but not yet receiving benefits.

Market value as of June 30 of such Fiscal Year as shown in the audited financial statements of the Retirement System.

The District estimates that approximately 85% of the District's annual contributions are attributable to the Water System and approximately 15% are attributable to the Wastewater System.

⁽⁵⁾ Includes benefits paid and refunds of contributions.

The Retirement System is an integral part of the District and, as noted above, the District appoints the majority of the governing body of the Retirement System and provides for its funding. Accordingly, the Retirement System's operations are reported as a Pension and Other Employee Benefit Trust Fund in the District's basic financial statements. The Retirement System also issues separately available financial statements on an annual basis. Such financial statements can be obtained from the District at 375 Eleventh Street, Oakland, California 94607.

The amounts set forth in this discussion of the District's Retirement System, including, for example, actuarial accrued liabilities and funded ratios, are based upon numerous demographic and economic assumptions, including investment return rates, inflation rates, salary increase rates, cost of living adjustments, postemployment mortality, active member mortality, and rates of retirement. Prospective purchasers of the District's bonds are cautioned to review and carefully assess the reasonableness of the assumptions set forth in the documents that are cited as the sources for such information. In addition, prospective purchasers of the District's bonds are cautioned that such sources and the underlying assumptions are made as of their respective dates, and are subject to change. Prospective purchasers of the District's bonds should also be aware that some of the information presented in this discussion of the Retirement System contains forward-looking statements and the actual results of the Retirement System may differ materially from the information presented herein.

Benefits. All regular full-time employees (as well as certain job share and intermittent employees) of the District are members of the Plan. In accordance with the Retirement System Ordinance, eligible employees become members of the Plan on the first day they are physically on the job. Retirement plan benefits are generally determined by a formula based on the employee's highest two years of compensation (highest 36 months for 2013 Tier members) and the length of employment with the District. Benefits adopted by the District vest in part with members 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.

In addition to retirement benefits, the District provides post-employment health benefits assistance, administered by the Retirement System, for employees who retire from the District or their surviving spouses. As of June 30, 2016, there were 1,478 participants receiving these healthcare benefits. For participants entering the Retirement System prior to July 1, 1996, a monthly allowance of up to \$450 (up to \$550 for married retirees and retirees with domestic partners) is paid to retirees with at least five years of full-time service to reimburse the retiree-paid medical expenses (including any health, dental or long-term care insurance premiums paid by the retiree for his or her self, and current spouse or domestic partner, or any health, dental or long-term care insurance premiums paid by the eligible surviving spouse or domestic partner of a retiree). Effective July 1, 1996, a 20-year vesting schedule for full benefits was implemented for all new employees. Effective January 1, 1999, retired members who had separated from the District prior to their retirement and who had at least five years of service also become eligible for the post-employment healthcare benefits based on the same vesting schedule.

Actuarial Assumptions and Funding Policy. Under the Retirement System Ordinance, the District is required to have an actuarial study performed at least every two years, but the District's current policy is to have an actuarial study performed each year. The most recent actuarial study of the Retirement System, including the pension and the HIB trusts, was performed by Segal Consulting, as of June 30, 2016.

The actuarial report provides a basis for the District Board's decision regarding the rate of contributions by the District to the Retirement System, including both the pension and the HIB trusts. The District makes its contribution using rates determined by its outside actuaries.

The Governmental Accounting Standards Board ("GASB") has issued two Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 is for plan reporting and Statement 68 is for employer reporting. The information needed to comply with Statement 67 was provided by the actuary in a separate report (i.e., separate from the pension funding valuation report) dated January 11, 2017, and the information needed to comply with Statement 68 was provided by the actuary in a separate report dated August 12, 2016 (for employer reporting as of June 30, 2016). The GASB Statements require much shorter periods for recognition of non-investment gains/losses and actuarial assumption changes, as well as for recognition of investment gains/losses. The GASB Statements provide for a complete separation between financial reporting and funding requirements for pension plans. Under the GASB statements, the District is required to report the Net Pension Liability (i.e., the difference between the Total Pension Liability and the Pension Plan's Net Position or market value of assets) in its financial statements. See Note 8(G) and the Required Supplementary Information in the audited financial statements of the District included in APPENDIX B - "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30. 2016 AND 2015" for additional information regarding the net pension liability of the District for the Retirement System.

To calculate the required contribution for each Fiscal Year, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than assumed (an actuarial loss). If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

A summary of the funding method and assumptions utilized in the actuarial study as of June 30, 2016 are described below.

Funding Method. 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 the ordinance governing the Retirement System. The Entry Age Cost Method is used for this purpose. Under the Entry Age Cost Method, there are two components to the total contributions: (i) the normal cost, which is the amount of contributions required to fund the benefit allocated to the current year of service (associated with active employees only), and (ii) an amortization payment on any unfunded actuarial accrued liability ("UAAL"). The normal cost is calculated on an individual basis where the entry age normal cost is calculated as the sum of the individual normal costs. The UAAL (past service liability) is amortized as a level percentage of payroll on a closed basis over the amortization periods described below. The actuarial accrued liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation.

Amortization Periods. As of June 30, 2016, the UAAL is currently being funded using a layered approach. Each layer of the UAAL established prior to July 1, 2011 is being funded over a separate decreasing 30-year period, starting from the date the layer was originally established. On or after July 1, 2011, changes in the UAAL attributable to plan amendments are amortized over separate decreasing 15-year periods; changes in the UAAL attributable to assumption or method changes are amortized over separate decreasing 25-year periods; and changes in the UAAL attributable to actuarial gains/losses (i.e., the extent to which actual overall experience deviates from the assumptions) are amortized over separate decreasing 20-year periods. Under the layered approach, any new UAAL layer that emerges between the prior and the current actuarial valuation (due to deviations between actual and expected actuarial experience, changes in actuarial assumptions used to measure the liabilities or other factors) will be determined and factored into the District's contribution rates so that it will be paid off after its respective amortization period described above.

<u>Actuarial Value of Assets (Asset Smoothing Method)</u>. Methods used to compute District contribution requirements include a five-year smoothing of the difference between the actual market return and the expected return on the market value of the assets (with further adjustments as may be required to keep the smoothed assets within 30% of market value). The impact of this will result in a "smoothed" valuation value of assets (or "Actuarial Value of Assets") that is higher or lower than the market value of the assets depending on whether the amount that is being smoothed is either a net deferred loss or a net deferred gain.

<u>Actuarial Assumptions</u>. A number of assumptions are used to calculate the costs of the Plan and to compute contribution requirements for the Plan. The principal assumptions used in preparing the pension plan and HIB funding valuation reports as of June 30, 2016 and the pension plan financial reporting (*i.e.*, GASB 67) valuation report as of June 30, 2016 include:

- 1. Investment rate of return: 7.25%.
- 2. Inflation rate: 3.00%.
- 3. Interest credited to member contributions: 7.25%.
- 4. Projected salary increases: Ranges from 9.50% to 4.00% based on years of service (includes inflation at 3.00% plus across the board salary increase of 0.50% plus merit and promotional increases).
- 5. Cost of living adjustments: 3.00%.
- 6. Increase in HIB maximum monthly allowance: The Plan does not provide for an automatic increase in the HIB allowance and no such increase is assumed in the valuation.
- 7. Additional assumptions: Additional assumptions were used regarding rates of termination from active membership, post-retirement mortality, active member mortality, disability rates and rates of retirement.

Adopted Changes in Actuarial Assumptions and Amortization Periods. Under the ordinance governing the Retirement System, the District is required to have an actuarial experience study conducted no less frequently than every four years in order to review the mortality, service and compensation experience of the members, retired members and beneficiaries of the Retirement System, over the study period. The experience study provides the factual information upon which the outside actuary makes recommendations to the District regarding the economic and demographic assumptions that provide the basis for the actuarial valuation of the assets and liabilities of the Retirement System. In November 2016, Segal Consulting completed and presented to the Retirement Board its Analysis of Actuarial Experience During the Period July 1, 2012 through June 30, 2016, for the Retirement System (the "2016 Experience Study"). The 2016 Experience Study utilized demographic data of the Plan's members and retirees from the last four actuarial valuations and provided recommendations regarding changes to the economic and demographic actuarial assumptions to be used in the June 30, 2016 and later actuarial valuations. Pursuant to the 2016 Experience Study, the actuary recommended changes in a number of the actuarial assumptions used to calculate the costs of the Plan and to compute the future contribution requirements for the Plan, including changes in the assumptions from those used in the actuarial study of the Plan as of June 30, 2015. At its November 17, 2016 meeting, the Retirement Board approved the changes in assumptions recommended by the actuary for the actuarial valuation to be performed as of June 30, 2016 (the actuarial assumptions used in the actuarial study of the Plan as of June 30, 2016 are described under "Actuarial Assumptions" above). Some of the changes in the actuarial assumptions from those used in the actuarial study of the Plan as of June 30, 2015 are as follows: (i) a reduction in the assumed investment rate of return from 7.50% to 7.25%; (ii) a reduction in the assumed interest crediting rate for member contributions from 7.50% to 7.25%; (iii) an overall reduction in the current 1955/1980 Plan retirement

rates for males and an overall increase for females; and (iv) a change in the mortality rates to the RP-2014 family of mortality tables, to anticipate slightly shorter life expectancies.

In the June 30, 2016 valuation, the actuary determined the increase in the actuarial accrued liability for the pension plan (not including the HIB) due to the assumption changes (including the change in the investment return assumption from 7.50% to 7.25%) to be \$52.6 million.

Contribution History. The schedule of District contributions for each of the pension plan and the HIB plan for the last five Fiscal Years are shown in Table 18:

Table 18 RETIREMENT SYSTEM History of Contributions Five Fiscal Years Ended June 30, 2016 (Dollar Amounts in Thousands)

Pension Plan:

Fiscal Year Ended June 30:	District Contribution Rate at June 30 ⁽¹⁾	Annual Required Contribution	Actual Contribution	Percentage Contributed
2012	32.91%	\$52,156	\$52,156	100%
2013	34.46	53,795	53,795	100
2014	$38.30^{(2)}$	61,660	61,660	100
2015	38.55	64,177	64,177	100
2016	37.32	65,218	65,218	100

Health Insurance Benefit:

Fiscal Year Ended June 30:	District Contribution Rate at June 30 ⁽¹⁾	Annual Required Contribution ⁽³⁾	Actual Contribution ⁽³⁾	Percentage Contributed ⁽⁴⁾
2012	4.83%	\$11,289	\$7,762	69%
2013	5.10	11,145	8,039	72
2014	5.34	11,196	8,748	78
2015	5.45	11,254	9,272	82
2016	5.49	11,590	9,779	84

Starting with Fiscal Year Ended (FYE) June 30, 2014, this rate represents the aggregate rate for the 1955/1980 Plan and the 2013 Tier. The rate has been aggregated based on projected annual payroll from two years prior to the FYE (e.g., the FYE June 30, 2016 rate is aggregated based on June 30, 2014 projected annual payroll), except where noted.

As reflected in the funding actuarial study and shown (rounded to the nearest thousand dollars) in Table 19, the combined Actuarial Accrued Liability for pension and HIB benefits at June 30, 2016 was \$2,111,518,292 and the Actuarial Value of Assets was \$1,452,786,717, resulting in an Unfunded Actuarial Accrued Liability of \$658,731,575 and a funded ratio of the Plan under the Entry Age Cost Method of 68.8%. As described above, the Actuarial Value of Assets has been calculated using a five-

⁽²⁾ Represents the aggregate rate for the 1955/1980 Plan and the 2013 Tier, based on the June 30, 2013 projected annual payroll (instead of the June 30, 2012 payroll) since the 2013 Tier did not become effective until January 1, 2013.

⁽³⁾ Includes an interest adjustment to the end of the year.

⁽⁴⁾ Percentage contributed was less than 100% as the District does not pre-fund the implicit retiree rate subsidy required to be valued under GASB Statements Nos. 43 and 45. See "- Schedule of Funding Progress" below.

year smoothing of the difference between the actual market return and the expected return on the market value of the assets. The valuation was performed in accordance with generally accepted actuarial principles and practices and the District's funding policy that was last reviewed with the Board in 2012. The assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs).

Table 19 sets forth the Actuarial Accrued Liability, Actuarial Value and Market Value of Assets, the Unfunded Actuarial Accrued Liability, and Funded Ratios as of June 30 of each of the Fiscal Years 2012 through 2016 (the year the most recent actuarial information is available).

Table 19 RETIREMENT SYSTEM

(Pension Plan and HIB Combined)

Actuarial Accrued Liability, Actuarial Value and Market Value of Assets,
Unfunded Actuarial Accrued Liability and Funded Ratios
Five Fiscal Years Ended June 30, 2016⁽¹⁾
(Dollar Amounts in Thousands)

Fiscal Year Ended June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets	Market Value of Assets	Unfunded Actuarial Accrued Liability (UAAL) ⁽²⁾	Funded Ratio on Actuarial Value	Funded Ratio on Market Value
2012	\$1,659,897	\$1,035,786	\$986,972	\$624,111	62.40%	59.46%
2013	1,750,910	1,112,370	1,124,328	638,540	63.53	64.21
2014	1,866,563	1,229,955	1,346,888	636,608	65.89	72.16
2015	1,957,833	1,350,292	1,407,209	607,541	68.97	71.88
2016	$2,111,518^{(3)}$	1,452,787	1,418,129	658,731	68.80	67.16

⁽¹⁾ Dollars rounded to nearest thousand.

Source: Segal Consulting.

As of June 30, 2016, the market value of the combined pension and HIB plan's assets was \$1,418,129,000 and the projected benefit obligation ("PBO") was \$2,061,202,000, resulting in a funded ratio of the plan under the PBO basis of 68.8%. Under the plan provisions, determination of the funded ratio on a PBO basis is required and certain cost of living increases are granted when the funded ratio of the plan is 85% or higher as calculated on the PBO basis.

Schedule of Funding Progress. As required by GASB, the District reports the schedule of funding progress for each of the pension plan and the post-employment healthcare plan (HIB), based on the results of the funding valuations. The schedule of funding progress presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The schedule of funding progress for the pension plan is set forth in Table 20.

The District estimates that approximately 85% of the UAAL is attributable to the Water System and approximately 15% is attributable to the Wastewater System. The UAAL is determined based on the Actuarial Value of Assets.

Of this amount, \$115,655 is attributable to the HIB liabilities. The HIB liabilities as calculated for GASB reporting purposes, which include the implicit retiree rate subsidy, were \$147,585 using a discount rate of 6.75%.

Table 20
PENSION PLAN
Schedule of Funding Progress
(Dollar Amounts in Thousands)

Actuarial Valuation Date June 30	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
2012	\$1,021,546	\$1,556,696	\$535,150	65.6%	\$158,847	336.9%
2013	1,095,847	1,646,534	550,687	66.6	159,246	345.8
2014	1,210,321	1,756,706	546,385	68.9	167,196	326.8
2015	1,327,113	1,845,912	518,799	71.9	174,899	296.6
2016	1,425,785	1,995,863	570,078	71.4	183,971	309.9

Source: Segal Consulting's Actuarial Valuation and Review of Pension Plan as of June 30, 2014.

The schedule of funding progress for the post-employment healthcare plan is set forth in Table 21.

The retiree health liabilities reported in the actuarial study as of June 30, 2016 (and referred to in Table 19 above) will not match those required to be used for GASB reporting purposes as shown in Table 21. The liabilities as reflected in the actuarial study have not been adjusted to include the implicit retiree rate subsidy as required under GASB reporting requirements. (Note that when premiums for active employees are determined on a pooled basis with premiums for retirees under age 65, a significant accounting obligation may exist even though the retiree under age 65 contributes most or all of the blended premium cost of the plan. The average costs for retirees if determined on a stand-alone basis is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The GASB accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.) In addition, the liabilities for GASB reporting purposes for the HIB portion of the obligations shown below were determined based upon a lower discount rate (*i.e.*, 6.75%) than the 7.25% investment rate of return used in Segal Consulting's prefunding study. The liabilities calculated for GASB reporting purposes shown in Table 21 are therefore higher than those reflected in the actuarial study as of June 30, 2016 and described above.

Table 21
POST-EMPLOYMENT HEALTHCARE BENEFIT (HIB)
Schedule of Funding Progress
(Dollar Amounts in Thousands)

Actuarial Valuation Date June 30	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
2012	\$14,240	\$138,240	\$123,999	10.3%	\$158,847	78.1%
2013	16,522	138,120	121,598	12.0	159,246	76.4
2014	19,634	140,416	120,782	14.0	167,196	72.2
2015	23,179	143,946	120,767	16.1	174,899	69.0
2016	27,002	147,585	120,583	18.3	183,971	65.5

Source: Segal Consulting's Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2016 in accordance with GASB Statements No. 43 and 45.

Net Pension Liability. Under GASB 67, the pension plan is required to disclose the Net Pension Liability for financial reporting purposes. When measuring pension liability, GASB uses the same actuarial cost method (entry age method) and the same type of discount rate (expected return on assets) as the District uses for funding. This means that the Total Pension Liability ("TPL") measure for financial reporting is determined on the same basis as the District's AAL measure for funding. The Net Pension Liability ("NPL") is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is the same as the UAAL calculated on a market value basis. The Net Pension Liability as of June 30, 2016 and June 30, 2015 is set forth in Table 22.

Table 22 PENSION PLAN Net Pension Liability

	June 30, 2016	June 30, 2015
Total pension liability	\$ 1,995,863	\$ 1,845,912
Plan fiduciary net position	(1,391,771)	(1,383,053)
Net pension liability	\$ 604,092	\$ 462,859
Plan fiduciary net position as a %		
of the total pension liability	69.73%	74.93%

The NPL was measured as of June 30, 2016 and 2015. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total Pension Liability was determined based upon the results of the actuarial valuations as of June 30, 2016 and 2015, respectively.

The discount rate used to determine the Total Pension Liability was 7.25% as of June 30, 2016 and 7.50% as of June 30, 2015, following the same assumptions used by the System in the pension funding valuations as of June 30, 2016 and June 30, 2015, respectively. It should be noted that, according to GASB, the discount rate used for financial reporting purposes should be based on the long-term expected rate of return on a retirement system's investments, just as it is for funding. However, GASB requires that this assumption should be net of investment expenses but not net of administrative expenses (*i.e.*, without reduction for administrative expenses). Currently, the District's investment return assumption used for the annual funding valuation is developed net of both investment and administrative expenses.

Additional information concerning the Retirement System may be found in APPENDIX B – "EAST BAY MUNICIPAL UTILITY DISTRICT AUDITED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015."



AGENDA NO.
MEETING DATE

14.	
April 25, 2017	

TITLE _	2017 WATER SUPPLY AVAILABILITY AND DEFICIENCY REPORT
☑ MOTION	□ RESOLUTION □ ORDINANCE □

RECOMMENDED ACTION

- 1. File the Water Supply Availability and Deficiency Report in conformance with District Policy 9.03.
- 2. Declare that the District's water supply is sufficient for meeting customer demands in 2017.

SUMMARY

The annual Water Supply Availability and Deficiency Report is prepared and submitted to the Board of Directors as required under Policy 9.03. The report evaluates the adequacy of the current year's (2017) water supply. In low water supply years, this annual report provides the basis for the Board's consideration of possible demand management and/or supplemental supply measures as part of the District's Drought Management Plan. In years of surplus water supply, this report provides the basis for the Board's determination of additional availability of water for potential use by others.

For 2017, the projected end of September total system storage is projected to be full, greater than 630 thousand acre-feet (TAF), resulting in the District's water supply being sufficient to meet customer demands in 2017. The 2017 assessment also concludes that projected runoff and water storage require designating 'Normal/Above' year type flows in the lower Mokelumne River under the District's Joint Settlement Agreement (JSA). This determination is based on the State of California Department of Water Resources' (DWR) April 1 Mokelumne River runoff forecast which is equal to 248 percent of average.

DISCUSSION

2017 Water Supply and Demand Assessment

Current year water supply availability is determined by forecasting the amount of water that will be stored in District reservoirs on September 30, which marks the end of the "water year." This forecast is a two-step calculation. First, the amount of total system storage (TSS) as of September 30 is determined by adding projected runoff amounts to existing storage levels. The second step is the subtraction of anticipated customer demands and the volume of water that must be released from the District's storage reservoirs to meet downstream obligations. These obligations include minimum flows for fishery

Funds Available: FY	Budget Code:	Budget Code:		
DEPARTMENT SUBMITTING Water and Natural Resources	DEPARTMENT MANAGER or DIRECTOR Richard G. Sykes	APPROVED Suyanfer R. Cerro General Manager		

Contact the Office of the District Secretary with questions about completing or submitting this form.

Water Supply Availability and Deficiency Report April 25, 2017 Page 2

requirements, use by senior water right holders, and water requirements of other downstream interests. If the projected September 30 TSS exceeds 500 TAF, the District has sufficient current year water supply. If the sum is less than 500 TAF, the District's water supply is deficient.

Water Years 2014 and 2015 were two of the driest on record for the State of California and for the District, prompting the District in 2015 to declare a Stage 4 Drought under the Drought Management Program Guidelines. District customers responded to the call for increased conservation, meeting and exceeding the water use reduction goal. Water Year 2016 saw an improved water supply outlook for much of the state, with significant precipitation and snowpack in northern California. The TSS was greater than 500 TAF at the end of the water year and the District's water supply for 2016 was deemed to be sufficient.

Based on the water year unimpaired runoff of 1,855 TAF into Pardee Reservoir as forecasted by DWR in the April 1 Bulletin 120 Report, the required release from Camanche Reservoir and expected flow below Woodbridge during the period April 1, 2017 through September 30, 2017 is set in accordance with the JSA "Normal/Above" year-type flow schedule.

Based on current 2017 runoff projections assuming median rainfall for the remainder of the year, Woodbridge Irrigation District will receive its full base supply of 60,000 acre-feet (AF); Jackson Valley Irrigation District will receive its maximum entitlement of 3,850 AF; and North San Joaquin Water Conservation District, a junior water right holder, will receive up to their scheduled amount of the 20,000 AF they requested on February 15, 2016. These allocations will be finalized once the agencies submit their delivery schedules to the District. In addition, flood control releases are anticipated this year.

Section F.3 of the JSA provides that the District notify resources agencies of the availability of surplus water; therefore following Board acceptance of the 2017 Water Supply Availability and Deficiency Report, the District will notify the fishery resource agencies of the availability of surplus water. The District has also been approached by The Nature Conservancy for the potential use of the surplus water for refuges.

State Emergency Conservation Regulations

The District was required to meet a 16 percent conservation goal as mandated by the State Water Resources Control Board starting in June 2015. From June 2015 to June 2016, the District achieved 22 percent water savings. In June 2016, the District was able to self-certify showing that it did not anticipate any water supply shortfalls, such that the District was no longer required to meet the SWRCB's mandatory conservation goal. Since precipitation and snowpack in parts of California in 2017 have reached record high conditions, the Governor issued Executive Order B-40-17 on April 7, 2017, which lifts the drought emergency in almost all of the California counties, including Alameda and Contra costa Counties. The Governor's Office released on April 7, 2017, a report titled "Making Water Conservation a California Way of Life" which describes a framework for implementing the Governor's May 9, 2016 Executive Order that provides proposals on using water more wisely, eliminating water waste and strengthening local drought resiliency, and improving agricultural water use efficiency and drought planning. District staff is working with stakeholder groups to modify the proposed legislative language in order to implement elements of the report.

Water Supply Availability and Deficiency Report April 25, 2017 Page 3

Gainsharing

In calendar year 2016, 8,384 AF of gainsharing water was carried over from 2015. The JSA Partnership Coordinating Committee (PCC) comprised of resources agencies requested that some of the gainsharing water be used to increase releases from Camanche Reservoir above the minimum flow requirements during January and February. By March 2016, about 4,185 AF of gainsharing water remained, and pulse flows in April reduced the available gainsharing water to 2,382 AF. Fall pulse flows, scheduled in coordination with PCC, used all remaining gainsharing water by November 5, 2016.

Bayside Groundwater Project - Phase 1

Phase 1 of the Bayside Groundwater Facility was completed in 2010. In 2017, the District injected water for five days to test the groundwater aquifer's reaction at increasingly higher rates. The District injected a total of 1,310,340 gallons from February 10, 2017 to February 15, 2017. The injection rate was maintained at about 160 gallons per minute (gpm) until February 14 and then the injection flow rate was increased from 160 gpm to 250 gpm.

This project is designed to store excess water in the East Bay underground aquifer by injecting drinking water during wet years for later extraction during dry years. A Waste Discharge Requirement Order, required in order to inject water into the subsurface, was obtained from the San Francisco Regional Water Quality Control Board in 2007 and remains current. The District has applied to the State's Division of Drinking Water (DDW) for the permit to extract and use the groundwater in the event drought conditions return requiring the use of supplemental supplies. As of today, the DDW has not approved the permit. Staff may operate the Bayside Project again later this year to inject additional water underground, if excess water is available and the proper permits are obtained for a second test.

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE:

April 20, 2017

MEMO TO:

Board of Directors

THROUGH:

Alexander R. Coate, General Manager

FROM:

Michael J. Wallis, Director of Operations and Maintenance

SUBJECT:

Storm Operations Update

INTRODUCTION

The District continues to operate its reservoirs to address the historic precipitation and snow received to date, flood control encroachment, reservoir spilling, and projected precipitation. This memo provides an update on the District's Mokelumne and East Bay operations.

DISCUSSION

Mokelumne Operations

The season-to-date precipitation in the Mokelumne watershed totals 78.51 inches (181 percent of average). The snow depth at Caples Lake totals 119 inches (204 percent of average) with a water content of 59.06 inches (226 percent of average). Storage capacity in Pardee and Camanche Reservoirs has increased by 15,390 AF in the past two weeks and totals 147,405 AF compared to required flood control space of 150,000 AF. The required space is a function of the amount of snow in the watershed at this point in the year. The recent small storms have caused the snow water content in the watershed to increase, so the required space has also increased.

The season-to-date cumulative runoff in the Mokelumne watershed totals 1,112 TAF, which is the highest runoff on record through April 16. The District's current projected Water Year 2017 runoff is 1,830 TAF, based on the Department of Water Resources (DWR) April 1, 2017 snow survey, precipitation received from April 1 to April 16, and estimated median precipitation through the end of September. The projected runoff is similar to Water Years 1983 and 1995 that totaled 1,848 TAF and 1,552 TAF. Runoff from snow melt in these years peaked late in the season in June and July. With over 700 AF of runoff remaining, staff is closely monitoring runoff and snow conditions in an effort to flexibly manage flood control space in Pardee and Camanche reservoirs to prepare for peak runoff from snow melt, regardless of the timing.

The District began decreasing Camanche releases on April 3 by 200 cubic feet per second (cfs) per day and reached a 4,000 cfs rate of release on Friday, April 7. The 4,000 cfs rate has been maintained to date to accommodate the runoff from the recent storms.

Storm Operations Update April 20, 2017 Page 2

The weather forecast for the next two weeks is for 0.5 inches of precipitation in the Mokelumne watershed. If temperatures stay cool, Pardee and Camanche reservoirs will continue to recover storage space over the next two weeks. The Camanche release rate will be reassessed on Monday, April 24, and will continue to be reassessed on a weekly basis, or more frequently if conditions warrant. The goal of the release adjustment plan is to maintain adequate flood control space and to bring the Pardee and Camanche system to full on July 1, as water cannot be diverted to storage in Camanche Reservoir after that date. The District will notify via automated messages the appropriate agencies as well as the landowners downstream of Camanche of any changes in releases.

East Bay Operations

The East Bay cumulative season to date precipitation is 40.7 inches (163 percent of average). Below is the status of local reservoirs:

- Briones Reservoir is 6.4 feet from spill.
- Lafayette Reservoir is 1.1 feet from spill.
- San Pablo Reservoir is 3.1 feet from spill.
- Upper San Leandro (USL) Reservoir is 5.8 feet from spill.
- Chabot Reservoir is spilling about 10 cfs.

The current forecast is for 0.4 inches of precipitation in the East Bay over the next two weeks. Releases from USL and San Pablo reservoirs will be scheduled, if necessary, during dry periods between storms when San Leandro and San Pablo creeks have available capacity. The District has developed an automated notification system to alert stakeholders downstream from USL and San Pablo reservoirs of significant increases in spill rates.

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: April 20, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Rischa S. Cole, Secretary of the District

SUBJECT: Planning Committee Minutes – April 11, 2017

Chair Frank Mellon called to order the Planning Committee in the Training Resource Center at 8 a.m. Directors Doug Linney and Marguerite Young were present at roll call. Staff present included: General Manager Alexander R. Coate, General Counsel Craig S. Spencer, Director of Water and Natural Resources Richard G. Sykes, Director of Engineering and Construction Xavier J. Irias, Director of Operations and Maintenance Michael J. Wallis, Manager of Fishery and Wildlife Jose D. Setka, Engineering Manager Carlton D. Chan, Manager of Regulatory Compliance Michael R. Ambrose, Special Assistant to the General Manager Alison A. Kastama, and Secretary of the District Rischa S. Cole.

Public Comment. None.

2016 Mokelumne Fall-run Chinook Salmon and Steelhead Returns. Manager of Fishery and Wildlife Jose D. Setka reported that in 2016 an estimated 8,871 fish returned to the river which is about 183 percent of the long-term average of 4,849. The nine-year average annual escapement is 9,623 fish or 198 percent of the long-term average. He highlighted some key factors affecting salmon and steelhead escapement to the Mokelumne River and how drought conditions significantly influenced salmon returns Central Valley-wide in 2016. Program changes implemented in 2009 and continued through 2016 have aided in recovering and increasing the Mokelumne population more quickly than any other system in the Central Valley. Releasing pulse flows, higher volumes of water for a period of a day or more, has been extremely successful in boosting salmon returns to the river. The District coordinated with Woodbridge Irrigation District on 10 pulse flow events between October and November 2016 which resulted in large increases in daily passage of salmon past Woodbridge Dam. Next, he reviewed the District's 2016 hatchery contributions to ocean commercial and recreational fisheries and the preliminary results from a 2015-2016 study which explored transporting juvenile salmon from the Mokelumne River by barge. Staff, working with resource agencies, will continue to implement actions to improve the survival of juvenile salmon as they migrate through the central Delta. EBMUD continues to work with resource agencies and others on the Bay Delta Water Quality Control Plan Phase 2 process to ensure that any outcome is protective of the Mokelumne fishery and that the hatchery continues to support a sustainable fishery in a manner that is compatible with the protection and recovery of listed salmonids in the Central Valley.

Board of Directors Planning Committee Minutes of April 11, 2017 April 20, 2017

AC Transit Bus Rapid Transit Water Main Relocations — Update. Engineering Manager Carlton D. Chan provided an update on the District's efforts to coordinate work with the Alameda-Contra Costa Transit District (AC Transit) on the AC Transit East Bay Bus Rapid Transit Project. Staff is working with AC Transit on a construction schedule to better address the District's concerns and schedule needs and to resolve design and cost issues outlined in a second amendment to the Project's Utility Agreement. Amendments to the agreement include clarification on agency responsibility for pipeline relocation reimbursement costs within the project area and AC Transit's agreement to reduce the project's pavement reconstruction depths. AC Transit also agreed to pay for the repair of any pipeline broken as a result of their work over the District's pipelines. The District installed leak detection loggers along the Bus Rapid Transit corridor to monitor for and identify leaks attributed to construction. Staff is currently working with AC Transit and the City of Oakland to schedule the replacement of 3,700 feet of 20-inch distribution pipeline in International Boulevard which must be replaced before AC Transit's contractor installs median strips and final paving. The entire project is scheduled to be completed in late 2018.

Earthquake Preparedness. Manager of Regulatory Compliance Michael R. Ambrose gave an update on the District's Emergency Preparedness Program and "Haywired," a United States Geological Survey (USGS) report regarding the impacts of a large earthquake on the Hayward fault. He reviewed the District's Seismic Improvement and Emergency Response programs and highlighted the Strategic Plan key performance indicators for maintaining an active Emergency Preparedness Program. In FY17, staff began engaging cities and counties in the service area to plan for disruption of water service following an earthquake. The goals are to support city and county planning to distribute potable water, provide resources and support as available until state or federal agencies can establish mass care systems, and to prepare for coordination of water system recovery. This effort will continue in FY18. Next, he reviewed the Haywired project which is a study of impacts on the San Francisco Bay Area from a magnitude 7.05 earthquake on the Hayward fault. The study builds on the scientific understanding from past earthquakes and the interdependencies among multiple layers of lifelines. The District has been providing input to USGS and their contractors to model the damage and recovery of the District's water distribution system in the Haywired scenario. The project results are expected to be released in April. The District is hosting a USGS workshop on April 24 for a group of partners to determine how to best use the Haywired results to improve seismic risk reduction. The Committee asked questions about the District's participation with other agencies on emergency planning and its plans to address issues during an actual emergency.

Adjournment. Director Mellon adjourned the meeting at 8:39 a.m.

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