BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 - 11th Street, Oakland, CA 94607 Office of the Secretary: (510) 287-0440

AGENDA
Tuesday, October 10, 2017

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

ROLL CALL:

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

ANNOUNCEMENT OF CLOSED SESSION AGENDA:

1. Significant exposure to litigation pursuant to Government Code section 54956.9(d)(2):

   a. Larry S. Blodgett
   Claim No. 2016-L-285-1

2. Conference with Labor Negotiators Bruce Heid, Gregory Ramirez and Glenn Berkheimer from the Industrial Employers Distributors Association; Alexander R. Coate, General Manager; Sophia D. Skoda, Director of Finance; Laura A. Brunson, Manager of Human Resources; and David Pak, Manager of Employee Relations, 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:

- California Association of Sanitation Agencies' 2017 Award of Excellence

ANNOUNCEMENTS FROM CLOSED SESSION:

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

CONSENT CALENDAR: (Single motion and vote approving 10 recommendations.)

1. Approve the Regular Meeting Minutes of September 26, 2017.

2. File correspondence with the Board.

3. Award a contract to the lowest responsive/responsible bidder, Aqueous Vets, Inc., for a one-time purchase, after the addition of taxes, not to exceed $187,415 for supplying a granular activated carbon filter storage vessel and media under Request for Quotation No. 1803.

4. Authorize an agreement beginning on or after October 10, 2017 with Terraphase Engineering, Inc., in an amount not to exceed $1,400,000 to support state-mandated lead sampling in K-12 schools for three years.

5. Authorize a cost-sharing agreement with the City of Piedmont in an amount not to exceed $199,088.47 for restoring asphalt pavement on portions of Grand, Lower Grand, and Arroyo Avenues as part of the Grand Avenue Pipeline Replacement work under Specification 2102.

6. Authorize actions related to flagging services.

    6a. Authorize an amendment to Board Motion No. 019-15 dated February 10, 2015 to increase the estimated agreement amount by $700,000 for the rental of fully maintained and operated (FM&O) flagging services from the following vendors: Bay Area Traffic Solutions, Inc.; CMC Traffic Control Specialists; Cal Safety, Inc.; Traffic Control Pros; Traffic Management, Inc.; TPR Traffic Solutions; Western Traffic Supply, Inc.; and Yolanda's Construction Administration & Traffic Control beginning on or after October 10, 2017 through the remainder of the agreement period ending February 10, 2020.

    6b. Authorize additional agreements for FM&O flagging services with vendors that meet District standards and offer pricing at or below the range in the amended agreements above. These additional agreements may be issued, on an as-needed basis, in order to increase flexibility and ensure availability of FM&O flagging services to the District.

7. Authorize actions related to the Geographical Information System software support.

    7a. Authorize an amendment to the existing enterprise licensing agreement with Environmental Systems Research Institute (ESRI) beginning on October 29, 2017 in an amount not to exceed $335,000 annually for software licensing as well as maintenance and support for their Geographical Information System for three years for a total cost of $1,005,000.

    7b. Authorize purchase of additional credits under the existing support agreement with ESRI in an amount not to exceed $180,000.

8. Approve the assignment of the contract for Camanche and Pardee Dams GPS Monitoring System Services, in the estimated total amount not to exceed $727,300, originally awarded under Board Motion No. 065-14 on April 22, 2014 from Foundry Group, LLP, to Sensemetrics, Inc.

9. Approve the Water Supply Assessment requested by the City of Alameda for the Alameda Marina Master Plan pursuant to California Water Code, Sections 10910-10915.

CONSENT CALENDAR: (Continued)

10. Authorize the General Manager or his designee to execute Amendment No. 2 to the Memorandum of Understanding between Placer County Water Agency and East Bay Municipal Utility District dated August 15, 2013. The amendment modifies the interim water purchase pricing to align with water transfer market conditions in dry years.

DETERMINATION AND DISCUSSION:

11. Approve actions related to the Dos Osos Reservoir Replacement Project. (Resolution)

    11a. Adopt the Final Mitigated Negative Declaration for the Dos Osos Reservoir Replacement Project.

    11b. Make findings in accordance with the California Environmental Quality Act (CEQA).

    11c. Adopt the Mitigation Monitoring and Reporting Plan in accordance with CEQA.

    11d. Adopt the Practices and Procedures Monitoring and Reporting Plan.

    11e. Approve the Project.

12. Adopt a Customer Assistance Policy to support the District's efforts in assisting customers, including low-income customers. (Resolution)

13. Legislative Update:
    - Update on Legislative Issues of Interest to EBMUD

14. General Manager's Report:
    - Monthly Report – September 2017

REPORTS AND DIRECTOR COMMENTS:

15. Committee Reports:
    - Finance/Administration
    - Legislative/Human Resources
    - Planning

16. Other Items for Future Consideration.

17. Director Comments.

ADJOURNMENT:

The next Regular Meeting of the Board of Directors will be held at 1:15 p.m. on Tuesday, October 24, 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.

BOARD CALENDAR

Date	Meeting	Time/Location	Topics
Tuesday, October 10	**Planning Committee** Mellon {Chair}; Linney; Young	9:15 a.m. Training Resource Center	• Main Wastewater Treatment Plant Digester Upgrade Project Phase 3 • Inline Water Treatment Plants Project Update • Pipeline Risk Model • Dos Osos Reservoir Replacement Project Update and Final Mitigated Negative Declaration
	Legislative/Human Resources Committee Coleman {Chair}; Patterson; Young	10:15 a.m. Training Resource Center	• Fiscal Year 2017 Contract Equity Program Annual Report • Update on Wellbeing Program
	Board of Directors	11:00 a.m. 1:15 p.m.	• Closed Session • Regular Meeting
Tuesday, October 24	**Finance/Administration Committee** Patterson {Chair}; Coleman; Mellon	10:00 a.m. Training Resource Center	
	Sustainability/Energy Committee Young {Chair}; Katz; Linney	TBD Training Resource Center	
	Board of Directors	11:00 a.m. 1:15 p.m.	• Closed Session • Regular Meeting
Tuesday, November 14	**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

Draft Prepared By
RC
Office of the Secretary

MINUTES

Tuesday, September 26, 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 11:08 a.m. in the Administration Center Board Room.

ROLL CALL

Directors John A. Coleman, Doug Linney (via teleconference), Frank Mellon, William B. Patterson, Marguerite Young, and President Lesa R. McIntosh were present at roll call. Director Andy Katz arrived at 11:12 a.m.

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 (Items 1a, 2a and 2b), Engineering Manager Elizabeth Z. Bialek, (Item 1a), Attorney Derek T. McDonald (Items 1a and 2b), Director of Water and Natural Resources Richard G. Sykes (Items 1b, 1c, and 1d), Assistant General Counsel Frederick S. Etheridge (Items 1b, 1c and 1d), Attorney Jonathan D. Salmon (Items 1b, 1c and 1d), Director of Engineering and Construction Xavier J. Irias (Item 2b), Manager of Human Resources Laura A. Brunson (Item 3), Manager of Employee Relations David Pak (Item 3), Attorney Lourdes Matthew (Item 3), and Industrial Employers Distributors Association representatives Glenn Berkheimer, Bruce Heid and Gregory Ramirez, (Item 3).

PUBLIC COMMENT

- Addressing the Board were the following: 1) John Briceno, President, AFSCME Local 444, commented on the pace and status of the current negotiations process and stated he would like to see movement to conclude negotiations; 2) Jay Morgan, AFSCME Local 2019 Executive Board member, commented on the District's response to the union's five equity adjustment requests and asked the Board to become involved in the equity adjustment decision making process; 3) Chris Farajian, EBMUD Associate Electrical Engineer, commented on the equity adjustment request for Associate Control Systems and Associate Electrical Engineers and provided a handout to support his comments; 4) Yogesh Prashar, EBMUD Associate Civil Engineer, commented on the equity adjustment and classification title change requests for Associate Civil Engineers and Geotechnical Engineers and provided a handout to support his comments; 5) Eric West, EBMUD Drafter III, commented on the equity adjustment and classification title change requests for the Drafter classification; 6) George McQuary, EBMUD Senior Programmer Analyst, commented on recruitments for programmers and recommended the Board consider an equity adjustment and classification title change to assist with recruitment efforts; and 7) Robert Winterer, EBMUD Materials Testing Technician II, commented on the equity adjustment request for Materials Testing Technicians and how the classification's current salary compared to the market.

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

ROLL CALL

Directors John A. Coleman, Andy Katz, Doug Linney (via teleconference), 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.

PRESENTATIONS

On behalf of the Board, President McIntosh announced that as part of the District's updated Employee Recognition Program, the District reinstituted the practice of providing a "water drop" plaque to recognize employees with 20 or more years of service to the District. Directors Coleman, Mellon and Patterson received staff-crafted, wooden "water drop" plaques to commemorate their 20 or more years of service. Director Coleman has served on the Board since 1991, Director Mellon since 1995, and Director Patterson since 1997. Each Director thanked the Board and staff for the recognition and the beautiful plaques.

ANNOUNCEMENTS FROM CLOSED SESSION

There were no announcements required from closed session.

PUBLIC COMMENT None.

CONSENT CALENDAR

- Motion by Director Coleman, seconded by Director Mellon, to approve the recommended actions for Items 1-7 on the Consent Calendar, carried (7-0) by the following roll call vote: AYES (Coleman, Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (None); ABSTAIN (None); ABSENT (None).

1. **Motion No. 160-17** – Approved the Regular Meeting Minutes of September 12, 2017.

2. The following correspondence was filed with the Board: **1)** Presentation entitled "Associate Control Systems (4108) & Associate Electrical Engineer (4152) Equity Adjustment Request," dated September 26, 2017; **2)** Correspondence entitled "Geotechnical Engineers Stipend Discussion Points to EBMUD Board on 09/25/17"; **3)** Revised EBMUD Policy 4.14R – Reimbursement of Director Expenses; **4)** Presentation entitled "SRF Loan Agreements: South Reservoir Replacement MacArthur Davenport Pipeline," dated September 26, 2017; **5)** Presentation entitled "Amendment to Water Theft Penalty Ordinance Second Reading," dated September 26, 2017; **6)** Presentation entitled "State Low-Income Rate Assistance Program," dated September 26, 2017; and **7)** Speakers' Bureau and Outreach Record CY17.

3. **Motion No. 161-17** – Authorized an agreement with Pacific States Environmental Contractors, Inc. in an amount not to exceed $15 million to remove and reuse trench soils from three District sites over two years with two options to renew for additional one-year periods, for a maximum agreement term of four years.

4. **Motion No. 162-17** – Authorized an agreement beginning on or after September 27, 2017 with Pyro-Comm Systems, Inc. in an amount not to exceed $27,300 annually for Administration Building and Adeline Maintenance Center fire alarm system testing and maintenance for three years with two options to renew for an additional one-year period at $28,665 annually, for a total cost of $139,230.

5. **Motion No. 163-17** – Authorized a Memorandum of Understanding between the South Bayside Waste Management Authority (SBWMA) and EBMUD to facilitate exploring a partnership and a project under which SBWMA would recover and deliver the Organic Fraction of Municipal Solid Waste to EBMUD for anaerobic digestion, energy generation, and beneficial reuse as biosolids.

6. **Motion No. 164-17** – Approve the July 2017 and August 2017 Monthly Investment Transactions Reports.

7. **Resolution No. 35061-17** – Adopt Revised Policy 3.03, Community Fire Flow Improvement Program; Revised Policy 3.04, Coordination of District Construction And Maintenance Work with Other Agencies; Revised Policy 4.05, Financing Facilities to Serve Applicants for New Services; Revised Policy 4.12, Purchasing and Materials Management; Revised Policy 4.14, Reimbursement of Director Expenses; Revised Policy 4.21, Land And Conservation/Mitigation Credit Sales – Use of Funds; Revised Policy 7.04, Access to District Property for Tours; Revised Policy 8.04, Establishing Wastewater Capacity Fees; and Revised Policy 9.06, Bay-Delta Protection.

- General Manager Coate stated that during the Finance/Administration Committee meeting earlier in the day, the Committee proposed additional revisions to Policy 4.14 - Reimbursement of Director Expenses and an updated version of the policy with the proposed revisions was provided at Board places.

DETERMINATION AND DISCUSSION

8. **Authorize actions related to State Revolving Fund financing agreements for the MacArthur/Davenport Pipeline Replacement and the South Reservoir Replacement Projects.**

Treasury Manager Dari Barzel provided an overview of the proposed financing for the projects. On September 12, the Board authorized staff to negotiate financing agreements with the State Water Resources Control Board (SWRCB) for two 30-year project loans from the SWRCB's Drinking Water State Revolving Fund at an interest rate set annually at one-half of the State's General Obligation bond rate. The District applied for loans of up to $18,680,000 for the MacArthur/Davenport Project and up to $22,215,600 for the South Reservoir Project. Both loans include a contingency loan amount. Compared with traditional revenue bond financing, the District could save approximately $9.5 million in interest costs on a net present value basis. She explained the loan terms and repayment plan and said that although some of the loan terms are more stringent than the requirements set forth by the District's revenue bond indenture, staff is confident that these requirements do not place an unreasonable hardship on the District. This information was presented to the Finance/Administration Committee earlier in the day and Committee Chair Patterson reported that the Committee unanimously supported the staff recommendation.

- Motion by Director Patterson, seconded by Director Mellon, to approve the recommended actions for Items 8.1 and 8.2, carried (7-0) by the following roll call vote: AYES (Coleman, Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (None); ABSTAIN (None); ABSENT (None).

8.1. **Resolution No. 35062-17** – Authorizing the Execution of a Financing Agreement with the State Water Resources Control Board to Provide Funding for Certain Improvements to the East Bay Municipal Utility District's Water System Related to the MacArthur Davenport Pipeline Replacement Project; and Authorizing and Approving Certain Actions Relating Thereto.

8.2. **Resolution No. 35063-17** – Authorizing the Execution of a Financing Agreement with the State Water Resources Control Board to Provide Funding for Certain Improvements to the East Bay Municipal Utility District's Water System Related to the South Reservoir Replacement Project; and Authorizing and Approving Certain Actions Relating Thereto.

9. **Conduct a continued second reading and vote to adopt an amendment to Water Theft Penalty Ordinance No. 365-15 enacted by the Board of Directors on April 28, 2015, considered for a first reading on August 8, 2017, and a second reading on September 12, 2017, to reduce the applicable penalties for water theft resulting from meter tampering from $1000, $2000, $3000 to $0, $200, $400 for first, second, and third offenses, respectively.**

Customer Services Manager Latrice F. King presented an overview of actions taken to date to amend the Water Theft Penalty ordinance. She reviewed a sample water theft action timeline which outlined the steps taken up to and including assessment of a water theft penalty. She also said that based on the Board's request, staff is preparing updated guidelines for reviewing customer appeals to water theft penalties. The Board discussed the information

presented and Director Coleman requested that future monthly reports from the General Manager include the geographic location of water theft incidents and Customer Assistance Program data. General Manager Coate stated that staff is finalizing how to efficiently gather and present this information and will have the first report available by November.

- Motion by Director Young, seconded by Director Linney, to approve the recommended action for Item 9, carried (6-1) by the following roll call vote: AYES (Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (Coleman); ABSTAIN (None); ABSENT (None).

Ordinance No. 368-17 – An Ordinance Amending Ordinance No. 365-15 Entitled "Water Theft Penalty Ordinance." *(Second Reading and Vote)*

10. **Legislative Update.**

Manager of Legislative Affairs Marlaigne K. Dumaine highlighted the information contained in H.R. 1068 and said staff recommended a "Support" position on the bill. She provided an update on recent state and federal actions, noting that Governor Brown is currently reviewing 600 plus legislative bills. She discussed the status of SB 623 (Monning) as well as bills related to lead testing in schools, park bonds, and the cap and trade program. Director Coleman requested that information on cap and trade legislation be provided to the Upper Mokelumne River Watershed Authority for its October 6 meeting and Director Katz requested speaking points for Board members regarding the Delta twin tunnels.

- Motion by Director Coleman, seconded by Director Young, to approve the recommended action for Item 10, carried (7-0) by the following roll call vote: AYES (Coleman, Katz, Linney, Mellon, Patterson, Young, and McIntosh); NOES (None); ABSTAIN (None); ABSENT (None).

Motion No. 165-17 – Received Legislative Report No. 10-17 and approved a SUPPORT position on the following bill: H.R. 1068 (Lee/Pallone) Safe Drinking Water Act Amendments of 2017.

11. **General Manager's Report.**

Environmental Affairs Officer Douglas I. Wallace provided an update on the State Water Resources Control Board's (SWRCB) efforts to develop a plan to fund and implement a Low-Income Rate Assistance Program. AB 401 (Dodd), enacted in 2015, requires the SWRCB to develop a plan and report findings to the Legislature by February 1, 2018. Mr. Wallace reviewed the actions taken to date by the SWRCB and the District's participation as a stakeholder in the process. He discussed the issues and alternatives associated with a statewide program including program funding sources, administration and benefit delivery, and impacts to water agencies' existing customer assistance programs and shut off policies. The SWRCB will hold a follow-up stakeholder meeting in October and submit a draft report for public comment in December. He said the District will remain engaged in the process and will keep the Board updated.

General Manager Coate reminded the Board about the October 6 Pardee BBQ and provided an update on the fire currently burning near the Leona Quarry in the Oakland hills.

REPORTS AND DIRECTOR COMMENTS

12. **Committee Reports.**

- Filed with the Board were the Planning Committee Minutes of September 12, 2017.

13. **Other Items for Future Consideration.**

None.

14. **Director Comments.**

- Director Coleman reported attending/participating in the following events: Meeting with Sid Corrie regarding water service on September 13 in Dublin; EBMUD booth at the Lafayette Art and Wine Festival on September 17 in Lafayette; Meeting with Contra Costa County Supervisors John Gioia and Federal Glover on September 19 in Martinez; ACWA Executive Committee teleconference meeting on September 25 in Oakland; and plans to attend/participate in the following events: Call with Lafayette City Councilmember Cam Burke on September 26 in Oakland; ACWA Budget Workshop on September 28 in Sacramento; ACWA Executive Committee, Board of Directors and Best of Blue Committee meetings on September 29 in Sacramento; ACWA Executive Committee teleconference meeting on October 2 in Oakland; East Bay Leadership luncheon on October 4 in Walnut Creek; Upper Mokelumne River Watershed Authority Retreat on October 5 and Board meeting on October 6 in Pardee; EBMUD Pardee BBQ on October 6 in Pardee; ACWA Executive Committee teleconference meeting on October 9 in Oakland.

- Director Katz had no report.

- Director Linney had no report.

- Director Mellon reported attending the Tradeswomen Inc.'s annual celebration on September 22 in San Leandro.

- Director Patterson had no report.

- Director Young acknowledged and thanked staff for their work on her September 21 ward event.

- President McIntosh had no report.

ADJOURNMENT

President McIntosh adjourned the meeting at 2:18 p.m.

SUBMITTED BY:

_____
Rischa S. Cole, Secretary of the District

APPROVED: October 10, 2017

_____
Lesa R. McIntosh, President of the Board

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EBMUD

AGENDA NO. 3.
MEETING DATE October 10, 2017

TITLE GRANULAR ACTIVATED CARBON FILTER PRESSURE VESSEL SYSTEM

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Award a contract to the lowest responsive/responsible bidder, Aqueous Vets, Inc. for a one-time purchase, after the addition of taxes, not to exceed $187,415 for supplying a granular activated carbon filter storage vessel and media under Request for Quotation No. 1803.

SUMMARY

A granular activated carbon filter process is being added to the Camanche South Shore (CASS) Water Treatment Plant (WTP) to meet state drinking water standards. Adding the granular activated carbon process will significantly reduce formation of disinfection byproducts (DBP) in the Camanche recreation areas. Information on this issue was provided to the Board of Directors in a May 12, 2016 memo.

DISCUSSION

Filtration through granular activated carbon is a proven method for removal of organic carbon which is often present in source water. When combined with chlorine disinfection, organic carbon contributes to the formation of regulated DBPs, such as Haloacetic Acids (HAAs) and Trihalomethanes (THMs).

Staff determined that the addition of a granular activated carbon process at the CASS WTP was the most cost-effective and reliable way to ensure drinking water standards are met. The CASS WTP is a relatively small facility (0.5 MGD) and granular activated carbon process can work well at a facility of this size. Last year, without these improvements, standards were not met at Camanche South Shore Recreation Area.

Installation of the granular activated carbon system will be performed by District forces. This item supports the District's Water Quality and Environmental Protection Strategic Plan goal.

Funds Available: FY18	Budget Code: 762/2011890/7999/5301	
DEPARTMENT SUBMITTING Water Operations	DEPARTMENT DIRECTOR David A. Briggs	APPROVED General Manager

VENDOR SELECTION

Requests for Quotations were posted to the District website, sent to three resource organizations, and to 156 potential proposers. Four bids were received, and Aqueous Vets, Inc. was determined to be the lowest responsive/responsible bidder.

SUSTAINABILITY

Economic

This item is included in the FY18 budget for the CASS WTP Replacement and is a cost-effective solution that ensures the CASS WTP consistently meets state drinking water standards. The system will also reduce operational oversight, minimize chemical usage, and reduce staff effort for system flushing.

Social

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

The granular activated carbon process significantly reduces DBP formation in the treated water, improving water quality for customers in the Camanche recreation area.

Environmental

Granular activated carbon will allow the CASS WTP to operate without significantly increasing the waste stream, while also reducing distribution system flushing and chemical use. Other evaluated alternatives required significantly more chemicals or flushing to accomplish similar reduction of DBPs.

ALTERNATIVES

Do not purchase the granular activated carbon filter vessel and media. This alternative is not recommended because without system improvements, the CASS WTP will not be able to consistently meet state drinking water standards.

Rebid the request for quotation. This alternative is not recommended as the District engaged in a fair and competitive bid process and Aqueous Vets, Inc. was the lowest responsive/responsible bidder.

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)

TITLE	DATE:
Materials and Supplies Granular Activated Carbon Filter Pressure Vessel System	September 22, 2017

CONTRACTOR:	QUOTATION NO.:	PERCENTAGE OF CONTRACT DOLLARS		
Aqueous Vets, Inc. Danville, CA 94506	1803 Local/Small/ Disabled Veteran Business	Availability Group	Contracting Objectives	Participation

BID/PROPOSER'S PRICE:	FIRM'S OWNERSHIP				
	Ethnicity	Gender	White Men	25%	100.0%
$187,415 *	White	Men	White Women	2%	0.0%
			Ethnic Minorities	25%	0.0%

CONTRACT EQUITY PARTICIPATION

COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
			M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: Aqueous Vets, Inc.	$187,415	White	X		100.0%						
SUBS: None											
TOTAL	$187,415				100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)

	White Men	White Women	Ethnic Minorities	Total Employees
No. of Employees:	3	1	1	5
Percent of Total Employees:	60.0%	20.0%	20.0%	
MSA Labor Market %:	39.0%	33.7%	27.3%	
MSA Labor Market Location:	California			

COMMENTS

Contract Equity Participation - 100% White Men participation.

*Total not to exceed: $187,415

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

AFFIRMATIVE ACTION SUMMARY (P-061)

EBMUD

(Completed by District)

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

Title: Granular Activated Carbon Filter Pressure Vessel System		Ethnic Minority Percentages From U.S. Census Data					
			B	H	A/PI	AI/AN	TOTAL
		National	10.5	10.7	3.7	0.7	27.3
Quotation #: 1803	DATE: 9/22/2017	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
		Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2

R=Recmmd P=Prime S=Sub	Composition of Ownership / Company Name, Owner/Contact Person, Address, and Phone Number		Number of Ethnic Minority Employees						
			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	WM: L/SBE, DVBE	Company Wide	0	0	1	0	1	20.0%	48.4%
Aqueous Vets, Inc. Robert Craw 288 Jasmine Way Danville, CA 94506		Manager/Prof	0	0	0	0	0	0.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	0	0	0	0	0.0%	
		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
925-967-5232		AA Plan on File: NA	Date of last contract with District: Insert Date						
		Co. Wide MSA: California	# Employees-Co. Wide: 5				Bay Area: 1		
P	Publicly Held Corporation	Company Wide	0	5	0	0	5	38.5%	48.4%
Calgon Carbon Corporation Sandra Liller 3000 GSK Drive Moon Township, PA 15108		Manager/Prof	0	1	0	0	1	25.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	2	0	0	2	40.0%	
		Semi/Unskilled	0	2	0	0	2	50.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
412-787-4516		Co. Wide MSA: California	# Employees-Co. Wide: 13				Bay Area: 1		
P	WM	Company Wide	INFORMATION NOT PROVIDED						
WesTech Craig Martin 3665 S. West Temple Salt Lake City, UT		Manager/Prof							
		Technical/Sales							
		Clerical/Skilled							
		Semi/Unskilled							
		Bay Area							
801-265-1000		Co. Wide MSA:							
P	WM	Company Wide	INFORMATION NOT PROVIDED						
Carbon Activated Corporation Lionel Perera 2250 S. Central Avenue Compton, CA 90220		Manager/Prof							
		Technical/Sales							
		Clerical/Skilled							
		Semi/Unskilled							
		Bay Area							
310-885-4555		Co. Wide MSA:							

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

EBMUD

AGENDA NO. 4.
MEETING DATE October 10, 2017

TITLE **LEAD SAMPLING IN K-12 SCHOOLS**

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Authorize an agreement beginning on or after October 10, 2017 with Terraphase Engineering Inc. in an amount not to exceed $1,400,000 to support state-mandated lead sampling in K-12 schools for three years. In awarding this contract, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

In December 2016, the California State Water Resources Control Board, Division of Drinking Water (DDW) issued an amendment to the District's Domestic Water Supply Permit, requiring that, upon request, the District to perform lead sampling for K-12 schools in the District's service area. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and an important concern for children's health. Lead sampling in K-12 schools is an important step in protecting children from exposure to lead. A presentation on lead sampling in K-12 schools was given to the Planning Committee on July 11, 2017.

DISCUSSION

This contract allows the District to comply with the recent K-12 lead testing requirements set by the DDW within the regulatory timeframe. With over 500 K-12 schools served by the District, this contract ensures adequate response to school sampling requests. The contractor will work with schools to complete sampling plans, collect and analyze samples, and compile results. This contract will be managed by the District's lead sampling in K-12 schools project manager. A written update on the status of the sampling, including which schools are participating, will be provided to the Board in November 2017.

This contract is based on unit costs so the District may authorize expansion of the program should pending legislation require lead testing actions. Any funding for additional scope would require separate Board authorization.

Funds Available: FY 18/19	Budget Code: 777 – 5231 – 1014659	
DEPARTMENT SUBMITTING Water Operations	DEPARTMENT MANAGER or DIRECTOR David A. Briggs	APPROVED Manager R. General Manager

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

CONSULTANT SELECTION

Using the District's FY 16/17 Engineering Consultant Roster, requests for proposals were sent to 18 firms, including two minority-owned firms, and posted on the District's website. Seven responsive proposals were received. Staff selected Terraphase Engineering Inc. as it was considered the most capable based on the ability to implement the tasks required under the permit amendment in a timely and cost-effective manner. These tasks include program administration, outreach to schools, field sampling, laboratory services, data compilation, and reports. Terraphase Engineering Inc. was also selected for its capacity to accommodate peak workloads.

SUSTAINABILITY

Economic

Funding for this item is included in the FY18 and FY19 operating budgets.

Social

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

This contract provides a public health service to K-12 school children and is required by the state.

Locals 2019 and 21 were notified of this contract on July 24, 2017. Local 21 did not raise any specific issues related to this contract. Local 2019 issues were addressed at a meeting on August 9, 2017 and resolved.

ALTERNATIVES

Conduct work with District staff. This alternative is not recommended because the estimated staff resources to complete the program for all schools in the service area could total 10,400 hours. In addition, the work must be completed within 90 days of a request. The testing requirements could total 2,650 samples, which would exceed the District's laboratory capacity.

Select another consultant. This alternative is not recommended because Terraphase Engineering Inc. demonstrated the best qualifications to perform the required work at the best cost.

Attachments

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

CONTRACT EQUITY PROGRAM SUMMARY (P-035)

EBMUD

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

TITLE	DATE:
Professional Services Agreement Lead Sampling in K-12 Schools	September 22, 2017

CONTRACTOR:	Small / Local Business	PERCENTAGE OF CONTRACT DOLLARS		
Terraphase Engineering Inc. Oakland, CA 94612		**Availability Group**	**Contracting Objectives**	**Participation**
BID/PROPOSER'S PRICE:	**FIRM'S OWNERSHIP**	**White Men**	**25%**	**99.2%**
	Ethnicity / **Gender**	**White Women**	**6%**	**0.8%**
$1,400,000 *	White / Men	**Ethnic Minorities**	**25%**	**0.0%**

CONTRACT EQUITY PARTICIPATION

COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
			M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME:											
Terraphase Engineering Inc.	$1,388,670	White	X		99.2%						
SUBS:											
BC Laboratories	$11,330	White		X		0.8%					
TOTAL	$1,400,000				99.2%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%

CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)

	White Men	White Women	Ethnic Minorities	Total Employees
No. of Employees:	31	17	13	61
Percent of Total Employees:	50.8%	27.9%	21.3%	
MSA Labor Market %:	28.0%	23.6%	48.4%	
MSA Labor Market Location:	California			

COMMENTS

Contract Equity Participation - 99.5% White Men participation and 0.5% White Women participation.

*Total not to exceed: $1,400,000

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

EBMUD

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					
Lead Sampling in K-12 Schools				B	H	A/PI	AI/AN	TOTAL
			National	10.5	10.7	3.7	0.7	27.3
Professional Services Agreement	DATE: 9/22/2017		9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
			Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2
R=Recmmd P=Prime S=Sub	Composition of Ownership		Number of Ethnic Minority Employees					
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	WM: L/SBE	Company Wide	2	4	6	0	12	19.7%	48.4%
Terraphase Engineering Inc.		Manager/Prof	2	2	2	0	6	12.2%	
Hank A. Galindo		Technical/Sales	0	0	1	0	1	33.3%	
1404 Franklin Street, Suite 600		Clerical/Skilled	0	1	2	0	3	60.0%	
Oakland, CA 94612		Semi/Unskilled	0	1	1	0	0	0.0%	
		Bay Area	2	2	6	0	10	21.7%	39.9%
510-645-1850 ext. 64		AA Plan on File:	NA		Date of last contract with District:		NA		
		Co. Wide MSA:	California		# Employees-Co. Wide:	61	Bay Area:	46	
S	WW	Company Wide							
BC Laboratories		Manager/Prof							
Mark Ellis		Technical/Sales							
4100 Atlas Court		Clerical/Skilled	INFORMATION NOT PROVIDED						
Bakersfield, CA 93313		Semi/Unskilled							
		Bay Area							
800-878-4911 ext. 431		Co. Wide MSA:							
P	WM: L/SBE	Company Wide	0	12	5	0	17	58.6%	39.9%
ACC Environmental Consultants, Inc.		Manager/Prof	0	6	2	0	8	6.1%	
Heather Sobky		Technical/Sales	0	6	1	0	7	63.6%	
7977 Capwell Drive, Suite 100		Clerical/Skilled	0	0	2	0	2	0.5%	
Oakland, CA 94621		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
510-638-8400		Co. Wide MSA:	9 Bay Area Counties		# Employees-Co. Wide:	29	Bay Area:	0	
P	EMM: A/PI - LBE	Company Wide	16	17	20	0	53	51.5%	48.4%
Alisto Engineering Group		Manager/Prof	0	4	7	0	11	40.7%	
Nancy Valero		Technical/Sales	14	7	11	0	32	55.2%	
2737 N. Main Street, Suite 200		Clerical/Skilled	1	1	2	0	4	40.0%	
Walnut Creek, CA 94597		Semi/Unskilled	1	5	0	0	6	75.0%	
		Bay Area	16	17	19	0	0	0.0%	39.9%
925-279-5000		Co. Wide MSA:	California		# Employees-Co. Wide:	103	Bay Area:	102	
P	WM: LBE	Company Wide	8	14	52	0	74	13.0%	48.4%
GHD, inc.		Manager/Prof	4	9	42	0	55	13.3%	
Jennifer Carney		Technical/Sales	4	2	5	0	11	9.9%	
5900 Hollis Street, Suit A		Clerical/Skilled	0	3	5	0	8	17.0%	
Emeryville, CA 94608		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	2	13	0	15	14.9%	39.9%
315-679-5771		Co. Wide MSA:	California		# Employees-Co. Wide:	570	Bay Area:	101	

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

EBMUD

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				
Lead Sampling in K-12 Schools			B	H	A/PI	AI/AN	TOTAL
		National	10.5	10.7	3.7	0.7	27.3
Professional Services Agreement	DATE: 9/22/2017	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
		Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2

R=Recmmd P=Prime S=Sub	Composition of Ownership		Number of Ethnic Minority Employees						
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
P	WM: LBE	Company Wide	3	2	9	0	14	36.8%	39.9%
Millennium Consulting Associates		Manager/Prof	0	1	4	0	5	33.3%	
Amy Vincze		Technical/Sales	3	1	3	0	0	0.0%	
401 Roland Way, Suite 250		Clerical/Skilled	0	0	2	0	2	33.3%	
Oakland, CA 94621		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	1	8	0	9	45.0%	39.9%
925-808-6700		Co. Wide MSA:	9 Bay Area Counties		# Employees-Co. Wide:		38	Bay Area:	20
P	WM	Company Wide	98	197	152	21	468	11.3%	27.3%
TRC Solutions		Manager/Prof	68	97	124	10	299	10.4%	
Lauren Coutemanche		Technical/Sales	13	60	21	8	0	0.0%	
21 Griffin Rd. N		Clerical/Skilled	17	17	7	3	44	16.2%	
Windsor, CT 06095		Semi/Unskilled	0	23	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
978-656-3639		Co. Wide MSA:	Total USA		# Employees-Co. Wide:		4,144	Bay Area:	0
P	WM	Company Wide	9	63	61	2	135	67.5%	48.4%
Eurofins Eaton Analytical, Inc.		Manager/Prof	4	36	50	1	91	63.2%	
Bosco Ramirez		Technical/Sales	0	13	6	1	0	0.0%	
750 Royal Oaks Drive, Suite 100		Clerical/Skilled	0	1	0	0	1	100.0%	
Monrovia, CA 91016		Semi/Unskilled	5	13	5	0	23	85.2%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
626-386-1100		Co. Wide MSA:	California		# Employees-Co. Wide:		200	Bay Area:	1
P	EMM: B/AA - L/SBE	Company Wide							
Magdave Associates, Inc.		Manager/Prof							
David K. Edu		Technical/Sales							
303 Hegenberger Road, Suite 211		Clerical/Skilled	INFORMATION NOT PROVIDED						
Oakland, CA 94621		Semi/Unskilled							
		Bay Area							
510-633-7998		Co. Wide MSA:							

EBMUD

AGENDA NO. 5.
MEETING DATE October 10, 2017

TITLE GRAND AVENUE PIPELINE REPLACEMENT PAVEMENT RESTORATION

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Authorize a cost-sharing agreement with the City of Piedmont (City) in an amount not to exceed $199,088.47 for restoring asphalt pavement on portions of Grand, Lower Grand, and Arroyo Avenues as part of the Grand Avenue Pipeline Replacement work under Specification 2102.

SUMMARY

The construction contract for the Grand Avenue Pipeline Replacement was awarded at the May 23, 2017 Board meeting to Anvil Builders, Inc. This project includes construction of approximately 4,350 feet of water pipeline replacements on Grand, Lower Grand, and Arroyo Avenues (see attached Location Map). The District is responsible for restoring the asphalt pavement in the areas where project trenching occurred. The City requested that the District and City enter a cost-sharing agreement so that additional pavement rehabilitation which extends beyond the project trench areas may be completed. This agreement defines the City's reimbursement obligation to the District for this additional paving work.

DISCUSSION

In lieu of providing the City's standard asphalt pavement restoration over the trench area, the District will complete 2-inch mill and asphalt concrete resurfacing of the project roadways to the extent mutually agreed upon with the City. The City has agreed to pay for the additional resurfacing in excess of the areas over the project trenching location plus one foot on either side. The City's share of the total resurfacing cost is $141,662.43, based on the unit price paving bid from the District's contractor, Anvil Builders, Inc. The District's share is $57,426.04 for a combined amount of $199,088.47 as noted in the recommended action. The City will reimburse the District after Anvil Builders, Inc. completes the paving work as part of Specification 2102 contract work. This work supports the District's Long-Term Infrastructure Investment Strategic Plan goal.

Funds Available: FY17-18; CIP #1006298 Page 22	Budget Code: WSC\570\7999\2011549	
DEPARTMENT SUBMITTING Engineering and Construction	DEPARTMENT MANAGER or DIRECTOR Xavier J. Irias	APPROVED General Manager

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

SUSTAINABILITY

Economic

This item is included in the FY18 budget for the Large Diameter Pipelines project.

Social

Local 444 was notified of this contract on March 18, 2015 and did not raise any specific issues related to this contract.

This cooperative approach and cost-sharing agreement with the City allows final paving to be completed as quickly as possible after completion of the pipeline replacement work, reducing overall traffic and community impacts on Grand Avenue.

District staff presented the project to the Piedmont City Council on January 17, 2017, and the project was later presented to the Piedmont community on August 24, 2017.

Environmental

A Notice of Exemption was posted with the Alameda County Clerk on June 1, 2015.

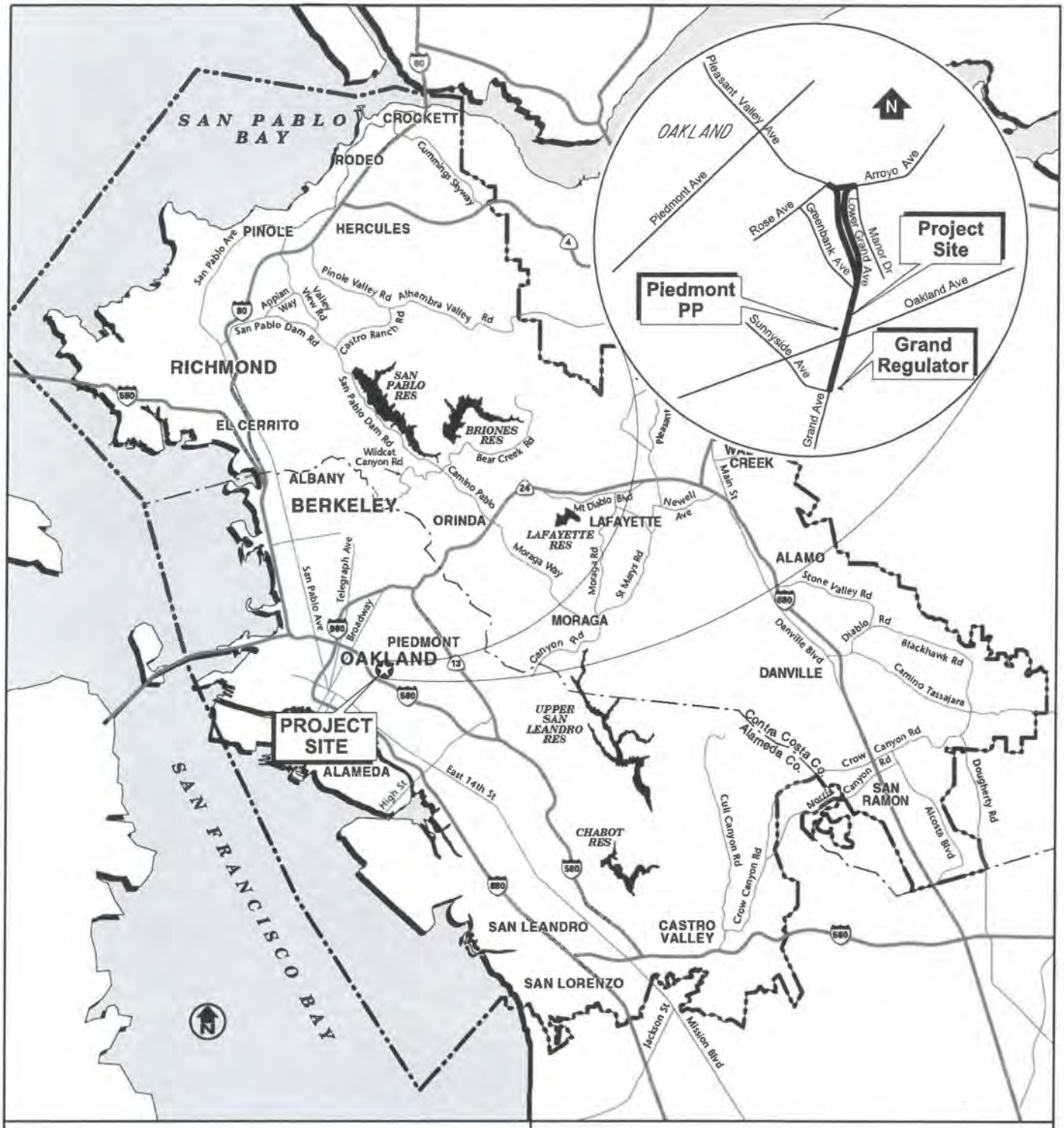
ALTERNATIVES

Do not perform the work. This alternative is not recommended because the District would be required to provide the City's standard tee-cut pavement restoration instead, which is more costly and increases impacts to the community as the City will have to restore the rest of the pavement at a future date.

Perform the work with District forces. This alternative is not recommended because the paving scope is included in the Grand Avenue Pipeline Replacement construction contract. The City requested that the pipe installation and pavement restoration work be completed in one mobilization and that the project be completed as quickly as possible since Grand Avenue is a major transportation corridor. Adherence to this request will shorten the construction duration of the project and minimize impacts to the community.

Attachment

Location Map



PROJECT SITE LOCATION MAP

NOT TO SCALE

EAST BAY MUNICIPAL UTILITY DISTRICT

GRAND AVENUE PIPELINE REPLACEMENT

SPECIFICATION 2102

EBMUD

AGENDA NO. 6.
MEETING DATE October 10, 2017

TITLE **FLAGGING SERVICES**

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

A. Authorize an amendment to Board Motion No. 019-15 dated February 10, 2015, to increase the estimated agreement amount by $700,000 for the rental of fully maintained and operated (FM&O) flagging services from the vendors listed below, beginning on or after October 10, 2017 through the remainder of the agreement period ending February 10, 2020.

Bay Area Traffic Solutions, Inc.
CMC Traffic Control Specialists
Cal Safety, Inc.
Traffic Control Pros
Traffic Management, Inc.
TPR Traffic Solutions
Western Traffic Supply, Inc.
Yolanda's Construction Administration & Traffic Control

B. Authorize additional agreements for FM&O flagging services with vendors that meet District standards and offer pricing at or below the range in the amended agreements above. These additional agreements may be issued, on an as-needed basis, in order to increase flexibility and ensure availability of FM&O flagging 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 amending these contracts, the Board of Directors finds that this work cannot be satisfactorily performed under civil service.

SUMMARY

The District uses flagging services primarily to augment District forces during the repair or replacement of the District's water distribution system when the work exceeds in-house capabilities. These services include assisting with traffic control, pedestrian assistance, street closure, detour setup and monitoring.

DISCUSSION

The District historically has used FM&O flagging services on an as-needed basis. In February 2015, the Board approved a contract for flagging service rentals in the estimated annual amount of $280,000 per year or $1,400,000 over five years. The use of these services has increased 95 percent since 2015 due to an unexpected increase in permit requirements, in the size and scope of pipeline projects, and leak repairs.

Funds Available: FY18/19	Budget Code: Various/Various	
DEPARTMENT SUBMITTING Maintenance and Construction	DEPARTMENT MANAGER or DIRECTOR Clifford C. Chan	APPROVED General Manager

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

The amount in the original authorization is nearly expended. This request seeks authorization to increase the original authorization by $700,000.

These agreements present no obligation on the part of the District to use these services and their use may be adjusted at any time. 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. This work supports the Strategic Plan goal for Long-Term Infrastructure Investment.

SERVICE PROVIDER SELECTION

The listed vendors represent all of the vendors in the District's database meeting the minimum requirements. Specific jobs will be completed on a job-by-job basis based on location and vendor availability.

SUSTAINABILITY

Economic

Funds for renting flagging services are available in the FY18/19 budget.

Social

The completed P-035 and P-061 forms are attached. The use of FM&O flagging services keeps pipeline production and repair moving, and ensures safe working conditions for staff and the public.

Local 444 was notified of this agreement on September 1, 2017. Local 444 issues were addressed at meetings on September 6 and September 20, 2017 and resolved.

Environmental

The use of FM&O flagging services helps to maintain efficient main break repair and replacement projects, and reduces impacts to the communities around District jobsites.

ALTERNATIVE

Do not contract for flagging rental services. This alternative is not recommended as the flagging services are required for construction work in the streets.

Add staff and equipment to reduce the need for services. The District will evaluate the addition of staff and equipment. The analysis will be completed by the end of FY18. However, supplementing in-house capabilities with rentals will still be needed due to the nature of the work, which may require concurrent use of flaggers for multi-day assignments, as well as the need to address emergencies and seasonal peak workloads.

Attachments

P-035 CEP Summary
P-061 Affirmative Action Summary

CONTRACT EQUITY PROGRAM SUMMARY (P-035)

EBMUD

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

TITLE	DATE:
General Services Agreement - Amendment Flagging Services - Two-Year Contract with 3 One-Year Renewal Options	October 2, 2017

CONTRACTOR:			PERCENTAGE OF CONTRACT DOLLARS		
Various (See below)			Availability Group	Contracting Objectives	Participation
BID/PROPOSER'S PRICE:	FIRM'S OWNERSHIP		White Men	25%	25.0%
	Ethnicity	Gender	White Women	6%	25.0%
$420,000 /yr*	See P-61		Ethnic Minorities	25%	50.0%

CONTRACT EQUITY PARTICIPATION

COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
			M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIMES:											
Bay Area Traffic Solutions, Inc.	$52,500	Hispanic	X				12.5%				
Yolanda's Construction Administration & Traffic Control	$52,500	Black		X			12.5%				
CMC Traffic Control Specialists	$52,500	White		X		12.5%					
Cal Safety, Inc.	$52,500	White		X		12.5%					
TPR Traffic Solutions	$52,500	White	X		12.5%						
Traffic Management, Inc.	$52,500	Hispanic	X				12.5%				
Western Traffic Supply, Inc.	$52,500	Hispanic,	X				12.5%				
Traffic Control Pros	$52,500	White	X		12.5%						
TOTAL	$420,000				25.0%	25.0%	50.0%	0.0%	0.0%	0.0%	0.0%

CONTRACTOR'S WORKFORCES PROFILE (From P-025 Form)

	White Men	White Women	Ethnic Minorities	Total Employees
No. of Employees:	See attached P-061			
Percent of Total Employees:				
MSA Labor Market %:				
MSA Labor Market Location:				

COMMENTS

Contract Equity Participation - 25% White Men participation, 25% White Women participation and 50% Ethnic Minority participation.

*Total not to exceed $2,100,000.

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

EBMUD

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				
Flagging Services - Two-Year Contract with 3 One-Year Renewal Options			B	H	A/PI	AI/AN	TOTAL
		National	10.5	10.7	3.7	0.7	27.3
General Services Agreement - Amendment	DATE: 10/2/2017	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
		Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2

R=Recmmd P=Prime S=Sub	Composition of Ownership		Number of Ethnic Minority Employees						
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	EMM:H - L/SBE	Company Wide	6	159	8	0	173	81.2%	53.9%
Bay Area Traffic Solutions, Inc.		Manager/Prof	0	6	0	0	6	85.7%	
Rafael DeLa Cruz, Jr.		Technical/Sales	0	0	0	0	0	0.0%	
44800 Industrial Dr		Clerical/Skilled	1	9	2	0	12	70.6%	
Fremont, CA 94538		Semi/Unskilled	5	144	6	0	155	82.0%	
		Bay Area	6	159	8	0	173	81.2%	39.9%
510-657-2543		AA Plan on File:	NA		Date of last contract with District:			8/11/2014	
		Co. Wide MSA:	Alameda		# Employees-Co. Wide:		213	Bay Area:	213
RP	EMW:B - SBE	Company Wide	12	0	0	0	12	100.0%	39.9%
Yolanda's Construction Administration & Traffic Control		Manager/Prof	2	0	0	0	2	100.0%	
Yolanda Jones		Technical/Sales	0	0	0	0	0	0.0%	
280 Newhall St		Clerical/Skilled	6	0	0	0	6	100.0%	
San Francisco, CA 94124		Semi/Unskilled	4	0	0	0	4	100.0%	
		Bay Area	12	0	0	0	12	100.0%	39.9%
415-647-2682		Co. Wide MSA:	9 Bay Area Counties		# Employees-Co. Wide:		12	Bay Area:	12
RP	WW - SBE	Company Wide	5	25	1	0	31	86.1%	48.3%
CMC Traffic Control Specialists		Manager/Prof	0	1	1	0	2	33.3%	
Crystal Miks		Technical/Sales	0	0	0	0	0	0.0%	
3450 Third St, 3G		Clerical/Skilled	0	0	0	0	0	0.0%	
San Francisco, CA 94124		Semi/Unskilled	5	24	0	0	29	96.7%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
415-206-1700		Co. Wide MSA:	San Francisco		# Employees-Co. Wide:		36	Bay Area:	36
RP	WW - L/SBE	Company Wide	1	10	1	1	13	54.2%	47.8%
Cal Safety, Inc.		Manager/Prof	0	0	0	0	0	0.0%	
Carmel Karrick		Technical/Sales	0	0	0	0	0	0.0%	
P.O. Box 1901		Clerical/Skilled	0	0	0	1	1	50.0%	
Fremont, CA 94538		Semi/Unskilled	1	10	1	0	12	60.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
510-656-5544		Co. Wide MSA:	Oakland		# Employees-Co. Wide:		24	Bay Area:	24
RP	WM - LBE	Company Wide	6	1	0	0	7	70.0%	27.2%
TPR Traffic Solutions		Manager/Prof	1	0	0	0	1	100.0%	
Perella Weinberg Partners		Technical/Sales	1	0	0	0	1	50.0%	
564 143rd Ave		Clerical/Skilled	4	1	0	0	5	71.4%	
San Leandro, CA 94578		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	6	1	0	0	7	70.0%	39.9%
855-351-1114		Co. Wide MSA:	Total USA		# Employees-Co. Wide:		10	Bay Area:	10
RP	EMM:H	Company Wide	78	144	13	0	235	55.8%	48.4%
Traffic Management, Inc.		Manager/Prof	5	4	1	0	10	16.1%	
Christopher Spano		Technical/Sales	0	2	2	0	4	13.3%	
2435 Lemon Ave		Clerical/Skilled	2	2	4	0	8	13.8%	
Signal Hill, CA 90755		Semi/Unskilled	71	136	10	0	217	80.1%	
		Bay Area	78	144	13	0	235	55.8%	39.9%
562-264-2238		Co. Wide MSA:	California		# Employees-Co. Wide:		421	Bay Area:	421

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

EBMUD

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				
Flagging Services - Two-Year Contract with 3 One-Year Renewal Options			B	H	A/PI	AI/AN	TOTAL
		National	10.5	10.7	3.7	0.7	27.3
General Services Agreement	DATE: 10/2/2017	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
		Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2

R=Recmmd P=Prime S=Sub	Composition of Ownership		Number of Ethnic Minority Employees						
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	EMM:H - L/SBE	Company Wide	0	5	0	0	5	71.4%	53.9%
Western Traffic Supply, Inc.		Manager/Prof	0	1	0	0	1	100.0%	
Edward Ibanez		Technical/Sales	0	0	0	0	0	0.0%	
3942 Valley Ave, Unit M		Clerical/Skilled	0	1	0	0	1	33.3%	
Pleasanton, CA 94566		Semi/Unskilled	0	3	0	0	3	100.0%	
		Bay Area	0	5	0	0	5	71.4%	39.9%
925-249-1854		Co. Wide MSA:	Alameda		# Employees-Co. Wide:		7	Bay Area:	7
RP	WM: L/SBE	Company Wide	0	2	0	0	2	6.1%	38.5%
Traffic Control Pros		Manager/Prof	0	0	0	0	0	0.0%	
Randy L. Fowler		Technical/Sales	0	2	0	0	2	0.0%	
4050 Pike Lane, Suite B		Clerical/Skilled	0	0	0	0	0	0.0%	
Concord, CA 94524		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
925-270-4580		Co. Wide MSA:	Contra Costa		# Employees-Co. Wide:			Bay Area:	

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

EBMUD

AGENDA NO. 7.
MEETING DATE October 10, 2017

TITLE **GEOGRAPHICAL INFORMATION SYSTEM SOFTWARE SUPPORT**

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

A. Authorize an amendment to the existing enterprise licensing agreement with Environmental Systems Research Institute (ESRI) beginning on October 29, 2017 in an amount not to exceed $335,000 annually for software licensing as well as maintenance and support for their Geographical Information System (GIS) for three years for a total cost of $1,005,000.
B. Authorize purchase of additional credits under the existing support agreement with ESRI in an amount not to exceed $180,000.

SUMMARY

This amendment will authorize ESRI to continue to provide annual software maintenance and support for GIS and mapping systems used by the District within an existing enterprise license agreement. It also provides unlimited licensing for additional ESRI infrastructure, as needed, as well as per-user licensing for ESRI's cloud-based software package, ArcGIS Online, and ESRI's mobile offerings. The additional credits will enable staff to enlist ESRI's guidance in expanding the District's GIS infrastructure and offerings.

DISCUSSION

The District currently uses the ArcGIS suite of software, including ArcGIS Online, ArcGIS Server, and ArcSDE for its GIS infrastructure. Staff relies on GIS software for property, watershed, recreation, water supply planning, and asset management mapping and tracking. This amendment will allow the District to extend our current systems into more online/interactive maps with more mobile capabilities. These could include additional interactive maps on www.ebmud.com, similar to recent additions such as Construction in My Neighborhood, Ward Maps, and the Sustainable Landscape Map. New mobile software will allow staff enhanced mapping tools on tablets and smartphones, allowing more rapid response to customer needs in the field. The annual software maintenance agreement provides technical support and periodic software upgrades for the software identified.

Funds Available: FY18	Budget Code: WSO/251/8769/5243	
DEPARTMENT SUBMITTING Information Systems	DEPARTMENT MANAGER or DIRECTOR Nicholas J. Irias	APPROVED General Manager

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

Implementing this sophisticated software environment occasionally requires expert guidance from ESRI, which is provided under the existing support agreement. Additional credits will ensure the District can get timely expert guidance on demand during infrastructure and other improvement planning efforts.

This amendment supports the District's Long-Term Financial Stability Strategic Plan goal by implementing technologies that improve the efficiency and effectiveness of business processes. It supports staff's ability to make effective use of geospatial tools and data to best maintain and monitor District infrastructure by developing workflows that enable rapid capture and use of spatial data.

VENDOR SELECTION

The District's GIS environment has been based on ESRI's software for over twenty years. This is a sole source contract because the GIS application software that ESRI provides is a proprietary product and cannot be purchased or maintained by another vendor.

SUSTAINABILITY

Economic

Funding for this item is included in the FY18 budget.

Social

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

ALTERNATIVE

Select another software platform and replace the existing ESRI software products with another GIS software vendor. This alternative is not recommended due to the significant cost and effort to convert the District's entire GIS infrastructure to a new vendor. The existing GIS applications have been developed using ESRI products and it would take significant staff time to redevelop those applications and retrain District staff. ESRI is the overall leading vendor in GIS software, which facilitates the exchange in data between other utilities and agencies. Also, all GIS software vendors have proprietary software and charge a similar annual software maintenance fee.

Attachments

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

CONTRACT EQUITY PROGRAM SUMMARY (P-035)

EBMUD

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

TITLE	DATE:
General Services Agreement Geographical Information System Software Support - Three-Year Contract	September 29, 2017

CONTRACTOR:	Sole Source	PERCENTAGE OF CONTRACT DOLLARS		
Environmental Systems Research Institute Redlands, CA 92373		**Availability Group**	**Contracting Objectives**	**Participation**
BID/PROPOSER'S PRICE:	**FIRM'S OWNERSHIP**	**White Men**	**25%**	**100.0%**
	Ethnicity / **Gender**	**White Women**	**6%**	**0.0%**
$335,000 /yr. *	White / Men	**Ethnic Minorities**	**25%**	**0.0%**

CONTRACT EQUITY PARTICIPATION

COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
			M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: Environmental Systems Research Institute ***SUBS:*** None	$335,000	White	X		100.0%						
TOTAL	$335,000				100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)

	White Men	White Women	Ethnic Minorities	Total Employees
No. of Employees:	1,632	811	1,053	3,496
Percent of Total Employees:	46.7%	23.2%	30.1%	
MSA Labor Market %:	26.5%	22.3%	51.1%	
MSA Labor Market Location:	San Bernadino			

COMMENTS

Contract Equity Participation - 100% White Men participation.

*Total not to exceed: $1,005,000 + purchase of additional credits in an amount not to exceed $180,000.

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

EBMUD

AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

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

Title: Geographical Information System Software Support - Three-Year Contract		Ethnic Minority Percentages From U.S. Census Data					
			B	H	A/PI	AI/AN	TOTAL
		National	10.5	10.7	3.7	0.7	27.3
General Services Agreement	DATE: 9/29/2017	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
		Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2

R=Recmmd P=Prime S=Sub	Composition of Ownership		Number of Ethnic Minority Employees						
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	WM	Company Wide	106	291	601	8	1,006	28.8%	51.1%
Environmental Systems Research Institute, Inc.		Manager/Prof	70	174	567	4	815	30.6%	
Shannon Wilson		Technical/Sales	18	44	23	0	85	15.9%	
380 New York Street		Clerical/Skilled	17	70	11	4	102	34.9%	
Redlands, CA 92373-8100		Semi/Unskilled	1	3	0	0	4	34.9%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
909-793-2853 ext. 3597		AA Plan on File:	NA		Date of last contract with District:		NA		
		Co. Wide MSA:	San Bernadino		# Employees-Co. Wide:		3,492	Bay Area:	15

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

EBMUD

AGENDA NO. 8.
MEETING DATE October 10, 2017

TITLE **ASSIGNMENT OF CONTRACT FOR CAMANCHE AND PARDEE DAMS GPS MONITORING SERVICES**

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Approve the assignment of the contract for Camanche and Pardee Dams GPS Monitoring System Services, in the estimated total amount not to exceed $727,300, originally awarded under Board Motion No. 065-14 on April 22, 2014, from Foundry Group, LLP, to Sensemetrics, Inc.

SUMMARY

On August 4, 2017, Sensemetrics, Inc., acquired Foundry Group, LLP and the operations of both combined companies have moved forward together under the name Sensemetrics, Inc.

DISCUSSION

The District has a contract ending December 31, 2017 with Foundry Group LLP, to furnish, test, and install GPS survey sensors and radios at Camanche Dam and dikes, and at Pardee Dam, and to prepare user manuals and train District employees to independently operate the system. The installation has been completed and the training program is on-going. This item supports the District's Long-Term Infrastructure Investment Strategic Plan goal.

SUSTAINABILITY

Economic

There is no anticipated fiscal impact as a result of this assignment. Sensemetrics, Inc. will continue to provide the training as needed and required in the previously approved contract with Foundry Group, LLP.

Social

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

Funds Available: FY18-19; CIP #000748; Page 12	Budget Code: WSC/562/7999/5231/2007753:25	
DEPARTMENT SUBMITTING Engineering and Construction	DEPARTMENT MANAGER or DIRECTOR Xavier J. Irias	APPROVED General Manager

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

ALTERNATIVE

Terminate the current contract and rebid. This alternative is not recommended because most of the contract terms have been completed and another firm will not be able to provide the requisite training on the Foundry systems.

Attachments

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

CONTRACT EQUITY PROGRAM SUMMARY (P-035)

EBMUD

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

TITLE	DATE:
SPECIFICATION NO.: NA Assignment of Contract for Camanche and Pardee Dams GPS Monitoring Services	September 29, 2017

CONTRACTOR:	Small Business	PERCENTAGE OF CONTRACT DOLLARS		
		Availability Group	Contracting Objectives	Participation
Sensemetrics, Inc.* San Diego, CA 92101		White Men	25%	100.0%
		White Women	9%	0.0%
		Ethnic Minorities	25%	0.0%

BID/PROPOSER'S PRICE:	FIRM'S OWNERSHIP	
	Ethnicity	Gender
$727,300 **	White	Men

CONTRACT EQUITY PARTICIPATION

COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
			M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: Sensemetrics, Inc.* ***SUBS:*** None	$727,300	White	X		100.0%						
TOTAL	$727,300				100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)

	White Men	White Women	Ethnic Minorities	Total Employees
No. of Employees:	13	0	3	16
Percent of Total Employees:	81.3%	0.0%	18.8%	
MSA Labor Market %:	32.4%	27.5%	40.2%	
MSA Labor Market Location:	San Diego			

COMMENTS

Contract Equity Participation - 100% White Men participation.

* Previous Contractor: Foundry Group, LLP
**Total not to exceed: $727,300

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

EBMUD

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 Contract for Camanche and Pardee Dams GPS Monitoring Services**

Spec. No.: NA

DATE: 9/29/2017

Ethnic Minority Percentages From U.S. Census Data	B	H	A/PI	AI/AN	TOTAL
National	10.5	10.7	3.7	0.7	27.3
9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9
Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2

R=Recmmd P=Prime S=Sub	Composition of Ownership		Number of Ethnic Minority Employees						
	Company Name, Owner/Contact Person, Address, and Phone Number		B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	WM: SBE	Company Wide	1	1	1	0	3	18.8%	40.2%
Sensemetrics, Inc. Matthew Meehan 406 9th Ave., Ste. 209 San Diego, CA 92101 602-377-0171		Manager/Prof	1	1	0	0	2	20.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	0	1	0	1	50.0%	
		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
		AA Plan on File:	NA		Date of last contract with District:		NA		
		Co. Wide MSA:	San Diego		# Employees-Co. Wide:		16	Bay Area:	0

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

EBMUD

AGENDA NO. 9.
MEETING DATE October 10, 2017

TITLE **WATER SUPPLY ASSESSMENT FOR ALAMEDA MARINA MASTER PLAN**

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Approve the Water Supply Assessment (WSA) requested by the City of Alameda (City) for the Alameda Marina Master Plan (Project) pursuant to California Water Code, Sections 10910-10915.

SUMMARY

The Project is located at 1815 Clement Avenue in the City of Alameda and is generally bounded to the north by Alameda Harbor, to the west by Grand Street, to the south by Clement Avenue, and to the east by the United States Naval Reserve (see Attachment A). The Project area consists of approximately 44 acres, including 26.5 acres of land and 17.5 acres of submerged land. At build-out, the Project will include 779 multi-family housing units, approximately 141,000 square feet of office and manufacturing/warehouse space, approximately 12,000 square feet of retail and service space, 4.3 acres of park/open space, and 530 marina slips.

The existing land uses consist of mixed-use commercial, retail, warehousing, marina, and waterfront/open space, with a historical water use of approximately 11,000 gallons per day (gpd). The projected water demand at Project build-out is estimated to be approximately 167,000 gpd. This demand is accounted for in the District's Urban Water Management Plan (UWMP) 2015. Approval of the WSA by the Board of Directors is required prior to its submittal to the City. The WSA is described in the attached letter (Attachment B) and, upon Board approval, will be sent to the City.

DISCUSSION

On July 24, 2017, the City submitted a formal request for a consultation between the District and the City regarding preparation of a WSA for the Project, pursuant to California Environmental Quality Act Guidelines, Section 15155, and California Water Code, Sections 10910-10915. The Project, for which an Environmental Impact Report is being prepared, meets the threshold requirement for an assessment of water supply availability based on the amount of water this Project would require, which is greater than the amount of water required by a 500-dwelling-unit project. The City is required to consult with the public water supplier to determine whether the water demand associated with the Project was included in its last UWMP and to assess whether its 20-year water supply (available during normal, single-dry and multiple-dry water years) will meet the water demand associated with the Project.

Funds Available:	Budget Code:	
DEPARTMENT SUBMITTING Engineering and Construction	DEPARTMENT MANAGER or DIRECTOR Xavier J. Irias	APPROVED General Manager

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

The UWMP 2015 concludes that the District has, and will have, adequate water supplies to serve existing and projected demands within the Ultimate Service Boundary during normal and wet years but that deficits are projected for drought years. During multi-year droughts, the District may require significant customer water use reductions and may also need to acquire supplemental supplies to meet customer demand. The UWMP 2015 includes Drought Management Program (DMP) Guidelines that establish the level of water use restrictions the District may implement under varying conditions. Under the DMP Guidelines, water use restrictions may be determined based upon either projected end-of-September Total System Storage (TSS) or water use restriction mandates from the State Water Resources Control Board. When state-mandated water use restrictions exceed the reductions that would otherwise be called for based upon the end-of-September TSS, the District's water use reduction requirements may be guided by the applicable state mandates. Under either scenario, while the District strives to keep water use reductions at or below 15 percent, if the drought is severe, mandatory water use reductions could exceed 15 percent.

The Project will be subject to the same drought restrictions that apply to all District customers. In addition, the proposed Project will be subject to District regulations aimed at encouraging efficient water use, such as Sections 29 and 31 of the District's Regulations Governing Water Service. Section 29, "Prohibiting Wasteful Use of Water," promotes efficient water use by District customers and includes additional restrictions on wasteful uses of potable water. Section 31, "Water Efficiency Requirements," identifies the types of water efficiency requirements (i.e., maximum flow rates for flow control devices) for water service.

The WSA letter requests that the City comply with the California Code of Regulations concerning water-efficient landscapes and District water service regulations, including compliance with Sections 29 and 31, described above, in force at the time the application is made. The District also requests a meeting to discuss water conservation opportunities in the Project area which will identify timely opportunities to maximize water conservation and identify District programs, as well as state and federal best management practices applicable to the Project.

The Project is not currently a candidate for recycled water. The Project is located about a mile away from the closest future planned recycled water pipeline within the City. Based on the location of the Project and the residential, retail, and maritime nature of this Project with limited outdoor uses, the District currently does not anticipate providing recycled water to any of the Project's components; however, the feasibility of providing recycled water to this area may change in the future. The District encourages the City and its developers to continue to coordinate closely with the District during the planning of the Project to further explore the options relating to recycled water.

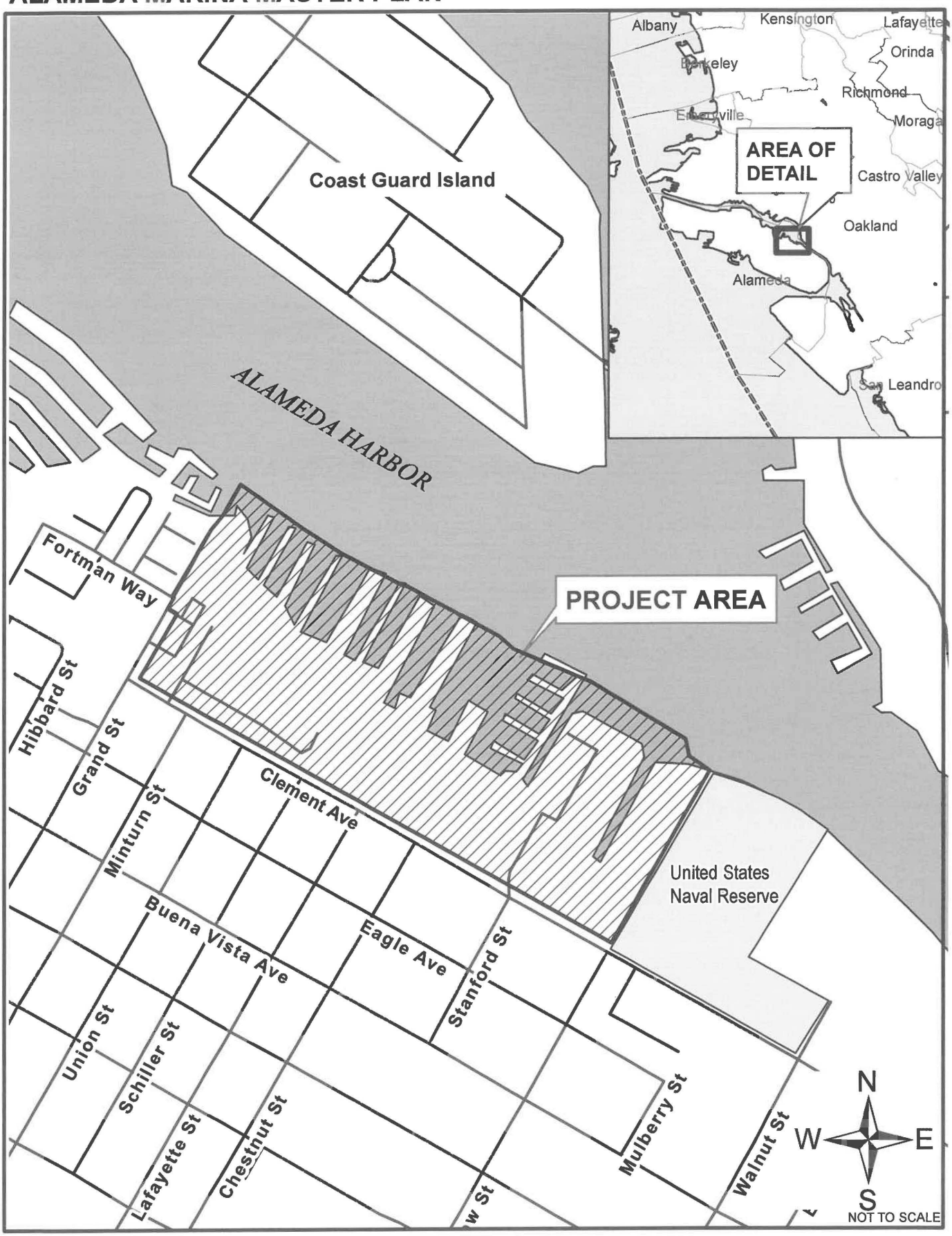
ALTERNATIVE

Do not submit a response. This alternative is not recommended. This WSA has been prepared pursuant to California Water Code, Sections 10910-10915 and is consistent with the law and the District's past WSAs.

Attachments

A. Map – Alameda Marina Master Plan
B. District's Response to July 24, 2017 Water Supply Assessment Request

ALAMEDA MARINA MASTER PLAN **Attachment A**



Attachment B

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October 10, 2017

Andrew Thomas, Assistant Community Development Director
City of Alameda
Community Development Department
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501

Re: Water Supply Assessment – Alameda Marina Master Plan

Dear Mr. Thomas:

This letter is in response to your request dated July 24, 2017 for water agency consultation (Enclosure 1) concerning the Water Supply Assessment (WSA) for the Alameda Marina Master Plan (Project), located in the City of Alameda (City), which is within East Bay Municipal Utility District's (EBMUD's) Ultimate Service Boundary. EBMUD appreciates the opportunity to provide this response.

Pursuant to Sections 10910-10915 of the California Water Code, the Project meets the threshold requirement for an assessment of water supply availability based on the amount of water this Project would require, which is greater than the amount of water required by a 500-dwelling-unit project.

Please note that this WSA addresses the issue of water supply only and is not a guarantee of service, and future water service is subject to the rates and regulations in effect at that time.

Project Demand

The water demand for the Project is accounted for in EBMUD's water demand projections, as published in EBMUD's Urban Water Management Plan (UWMP) 2015 (Enclosure 2). EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns. The historical water use in the Project area is approximately 11,000 gallons per day (gpd). The projected water demand at Project build-out is estimated to be approximately 167,000 gpd.

EBMUD's demand projections indicate both densification and land use changes in a few existing land use classifications, including commercial and residential land use areas. These changes increase EBMUD's overall demand. EBMUD's UWMP 2015 projects water demands over time, accounting for estimated variations in demand usage less conservation and recycled supply

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sources as noted in the UWMP 2015, Table 4-1, Mid-Cycle Demand Projections (Table 1). Typically, EBMUD prepares a full demand study every ten years; the most recent version, the 2040 Demand Study, was completed in 2009. For planning purposes, water demands are estimated in five-year increments, but it is recognized that actual incremental amounts may occur stepwise in shorter time increments. An increase in usage by one customer in a particular customer class does not require a strict gallon-for-gallon increase in conservation by other customers in that class as, in actuality, the amount of potable demand, conservation and recycled water use EBMUD-wide will vary somewhat. In 2014, EBMUD prepared the Mid-Cycle Demand Assessment (MCDA) in order to assess any significant effects on metered water consumption caused by the 2008-2010 drought and the economic downturn that affected growth in the Bay Area. As part of the MCDA, recently updated city and county general plans were reviewed for significant changes since the 2040 Demand Study was completed, and meetings were also held with representatives from the cities of Alameda, Oakland, Richmond, and San Ramon. The MCDA concluded that, while the cities and counties might reach their build-out goals later than originally anticipated, they would still reach these goals by 2040. Accordingly, the MCDA validated the 2040 Demand Study, as the demands are expected to gradually increase back to 2040 projected demand levels as development and water use return to pre-drought and pre-recession conditions. EBMUD plans to complete another full demand study in 2019 looking out at a long-term horizon of 2050. As part of the demand study, EBMUD will be reaching out to each city and county in the service area to ask about projected development and future land use changes. The study results will be incorporated into the UWMP 2020.

Table 1
Mid-Cycle Demand Projections (UWMP 2015, Table 4-1)

TABLE 4-1 — MID-CYCLE DEMAND PROJECTIONS

AVERAGE ANNUAL DEMAND (MGD)	2015	2020	2025	2030	2035	2040
PROJECTED TOTAL DEMAND	232	267	276	290	304	312
CONSERVATION[1]	-33	-39	-44	-51	-57	-62
NON-POTABLE WATER[1,2]	-9	-11	-14	-17	-18	-20
PLANNING LEVEL OF DEMAND	190	217	218	222	229	230

1 See Chapters 6 and 7 for more discussion of water recycling and conservation, respectively.
2 Non-potable water includes recycled water and raw water projects.

Project Area

The Project is located at 1815 Clement Avenue in the City and is generally bounded to the north by Alameda Harbor, to the west by Grand Street, to the south by Clement Avenue, and to the east by the United States Naval Reserve. At build-out, the Project will include 779 multi-family housing units, approximately 141,000 square feet of office and manufacturing/warehouse space, 12,000 square feet of retail and service space, 4.3 acres of park/open space, and 530 marina slips.

EBMUD Water Demand Projections

Since the 1970s, water demand within EBMUD's service area has ranged from 200 to 220 million gallons per day (mgd) in non-drought years. Section 4.1 of the UWMP 2015 outlines past and current EBMUD water demand, including Figure 4.1 which shows historic water use

(including metered and unmetered demands) within EBMUD's service area along with the number of customer accounts. The 2040 water demand forecast of 312 mgd for EBMUD's service area can be reduced to 230 mgd with the successful implementation of water recycling and conservation programs, as outlined in the UWMP 2015. Current demand is lower than estimated in the MCDA as a result of the recent multi-year drought. This is because the planning level of demand may differ from the actual demand in any given year due to water use reductions that typically occur during droughts. After droughts, a rebound effect is expected wherein demand rises back to projected levels. Thus, the MCDA still reflects a reasonable expectation for growth over the long term for demand in year 2040, as the demands are expected to gradually increase back to 2040 projected demand levels as development and water use return to pre-drought and pre-recession conditions. The proposed Project's future development and operations will not change EBMUD's 2040 demand projection.

EBMUD Water Supply, Water Rights and the UWMP 2015

EBMUD has water right permits and licenses that allow for delivery of up to a maximum of 325 mgd from the Mokelumne River, subject to the availability of Mokelumne River runoff and the senior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders and the terms of the appropriative water right permits and licenses.

Conditions that could, depending on hydrology, restrict EBMUD's ability to receive its full entitlement include:

- Upstream water use by senior water right holders.
- Downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources.
- Variability in precipitation and runoff.

During prolonged droughts, the Mokelumne River supply cannot meet EBMUD's projected customer demands. To address this, EBMUD has completed construction of the Freeport Regional Water Facility and the Bayside Groundwater Project Phase 1, which are discussed below in the Supplemental Water Supply and Demand Management section of this assessment. EBMUD has obtained and continues to seek supplemental supplies.

The UWMP 2015, adopted on June 28, 2016 by EBMUD's Board of Directors under Resolution No. 34092-16, is a long-range planning document used to assess current and projected water usage, water supply planning, along with conservation and recycling efforts. EBMUD's water supply sources are discussed in Section 1.5.1 of the UWMP 2015. EBMUD's main water supply is the Mokelumne River, and EBMUD has rights to receive up to 325 mgd of water from this source subject to the availability of runoff, senior water rights of other users, and downstream fishery flow requirements. EBMUD also has a Long-Term Renewal Contract (Contract No. 14-06-200-5183A-LTR1) with the United States (U.S.) Bureau of Reclamation to receive water from the Central Valley Project (CVP) through the Freeport Regional Water Facility in years when EBMUD's water supplies are relatively low (for more details, see Section 3.3.2 of the

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UWMP 2015). During some dry years, EBMUD may purchase water transfers to help meet customer demands. Section 5.1 of the UWMP 2015 discusses EBMUD's water transfer program.

EBMUD maintains a biennial budget and five-year capital improvement program to optimize investments and maximize drinking water quality, and the reliability, safety, flexibility, and overall efficiency of the water supply system. EBMUD's most recently adopted budget, which includes capital expenditures for the delivery of water supplies to its customers, can be found at http://www.ebmud.com/about-us/investors/budget-and-rates/.

EBMUD complies with applicable local, state, and federal regulations in the operation of its water supply system. Figure 1-4 of the UWMP 2015 illustrates the numerous local, state, and federal agencies that may regulate EBMUD's facilities and operations.

A summary of EBMUD's demand and supply projections, in five-year increments, for a 25-year planning horizon is provided in UWMP 2015, Table 4-5, Preliminary EBMUD Baseline Supply and Demand Analysis (Table 2).

EBMUD's evaluation of water supply availability accounts for the diversions of both upstream and downstream water right holders and fishery releases on the Mokelumne River. Fishery releases are based on the requirements of a 1998 Joint Settlement Agreement (JSA) between EBMUD, U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife. The JSA requires EBMUD to make minimum flow releases from its reservoirs to the lower Mokelumne River to protect and enhance the fishery resources and ecosystem of the river. As this water is released downriver, it is, therefore, not available for use by EBMUD's customers.

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Table 2
Preliminary EBMUD Baseline Supply and Demand Analysis (UWMP 2015, Table 4-5)

TABLE 4-5 **PRELIMINARY EBMUD BASELINE SUPPLY & DEMAND ANALYSIS**

SUPPLY AND DEMAND COMPARISON - NORMAL YEAR (MGD)		2015	2020	2025	2030	2035	2040
	MOKELUMNE SYSTEM	>190	>217	>218	>222	>229	>230
	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	DIFFERENCE	0	0	0	0	0	0
DRY YEAR RESULTS FROM EBMUDSIM (MGD)		**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
SINGLE DRY YEAR OR FIRST YEAR OF MULTI-YEAR DROUGHT	MOKELUMNE SYSTEM	145	169	170	173	179	179
	CVP SUPPLIES[2]	36	35	35	35	35	35
	BAYSIDE[3]	0	0	0	0	0	0
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PLANNING LEVEL DEMAND[1]	190	217	218	222	229	230
	RATIONING[4]	5%	6%	6%	6%	7%	7%
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	NEED FOR WATER (TAF)[5]	0	0	0	0	0	0
SECOND YEAR	MOKELUMNE SYSTEM	81	103	103	107	112	113
	CVP SUPPLIES[2]	71	71	71	71	71	71
	BAYSIDE[3]	0	0	0	0	0	0
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PLANNING LEVEL DEMAND[1]	190	217	218	222	229	230
	RATIONING[4]	20%	20%	20%	20%	20%	20%
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	NEED FOR WATER (TAF)[5]	0	0	0	0	0	0
THIRD YEAR	MOKELUMNE SYSTEM	111	132	132	125	120	104
	CVP SUPPLIES[2]	40	40	40	40	40	40
	BAYSIDE[3]	1	1	1	1	1	1
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	PLANNING LEVEL DEMAND[1]	190	217	218	222	229	230
	RATIONING[4]	20%	20%	20%	20%	20%	20%
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	NEED FOR WATER (TAF)[5]	0	0	2	13	24	48

1. Planning Level of Demand accounts for projected savings from water recycling and conservation programs as discussed in Chapters 6 and 7 respectively. Customer demand values are based on the Mid Cycle Demand Assessment, October 2014.
2. Projected available CVP supplies are taken according to the Drought Management Program Guidelines discussed in Chapter 3.
3. For the purposes of this modeling effort, it is assumed that the Bayside Groundwater Project would be brought online in the third year of a drought.
4. Rationing reduction goals are determined according to projected system storage levels in the Drought Management Program Guidelines discussed in Chapter 3.
5. Need for Water includes unmet customer demand as well as shortages on the Lower Mokelumne River.

The available supply and demand shown in Table 2 was derived from EBMUD's baseline hydrologic model with the following assumptions:

- Customer demand values are based on the MCDA, and planning level demands account for projected savings from water recycling and conservation programs.
- EBMUD Drought Planning Sequence assumes water years 1976, 1977 and a modified 1978 hydrology.
- Total system storage is depleted by the end of the third year of the drought.
- EBMUD will implement its Drought Management Program (DMP) when necessary.

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- The diversions by Amador and Calaveras Counties upstream of Pardee Reservoir will increase over time, eventually reaching the full extent of their senior rights.
- Releases are made to meet the requirements of senior downstream water right holders and fishery releases, as required by the JSA.
- EBMUD allocation of CVP supply is available the first year of a drought and subsequent drought years, according to the U.S. Bureau of Reclamation's Municipal and Industrial Shortage Policy.
- The Bayside Groundwater Project Phase 1 is available and brought online in the third year of a drought.

The UWMP 2015 concludes that EBMUD has, and will have, adequate water supplies to serve existing and projected demand within the Ultimate Service Boundary during normal and wet years but that deficits are projected for multi-year droughts. During multi-year droughts, EBMUD may require significant customer water use reductions and may also need to acquire supplemental supplies to meet customer demand.

As discussed under the DMP Guidelines section in Chapter 3 of the UWMP 2015, EBMUD's system storage generally allows EBMUD to continue serving its customers during dry-year events. EBMUD typically imposes water use restrictions based on the projected storage available at the end of September and, based on recent changes to its DMP Guidelines (summarized below), may also implement water use restrictions in response to a State of California mandate. By imposing water use restrictions in the first dry year of potential drought periods, EBMUD attempts to minimize water use restrictions in subsequent years if a drought persists. Throughout dry periods, EBMUD must continue to meet its current and subsequent-year fishery flow release requirements and obligations to downstream agencies.

The UWMP 2015 includes DMP Guidelines that establish the level of water use restrictions EBMUD may implement under varying conditions. Under the DMP Guidelines, water use restrictions may be determined based upon either projected end-of-September Total System Storage (TSS) or water use restriction mandates from the State Water Resources Control Board. When state-mandated water use restrictions exceed the reductions that would otherwise be called for based upon end-of-September TSS, EBMUD's water use reduction requirements may be guided by the applicable state mandates. Under either scenario, while EBMUD strives to keep water use reductions at or below 15 percent, if the drought is severe, mandatory water use reductions could exceed 15 percent.

Despite water savings from EBMUD's aggressive conservation and recycling programs and water use restrictions called for in the DMP Guidelines, supplemental supplies are still needed in significant, severe, and critical droughts. The proposed Project will be subject to the same drought restrictions that apply to all EBMUD customers. In addition, the proposed Project will be subject to EBMUD's regulations aimed at encouraging efficient water use, such as Sections 29 and 31 of EBMUD's Regulations Governing Water Service. Section 29, "Prohibiting Wasteful Use of Water," promotes efficient water use by EBMUD customers and includes additional restrictions on wasteful uses of potable water. Section 31, "Water Efficiency Requirements," identifies the types of water efficiency requirements (i.e., maximum flow rates for flow control devices) for water service.

Supplemental Water Supply and Demand Management

The goals of meeting projected water needs and increased water reliability rely on supplemental supplies, improving reliability of existing water supply facilities, water conservation and recycled water programs.

By 2011, EBMUD completed construction of the Freeport Regional Water Facility and the Bayside Groundwater Project Phase 1 to augment its water supply during drought periods. However, additional supplemental supplies beyond those provided through these facilities will still be needed, as noted above. Chapter 5 of the UWMP 2015 describes potential supplemental water supply projects that could be implemented to meet projected long-term water demands during multi-year drought periods.

The Freeport Regional Water Facility became operational in February 2011. EBMUD's ability to take delivery of CVP water through the Freeport Regional Water Facility is based on its Long Term Renewal Contract (LTRC) with the U.S. Bureau of Reclamation. The LTRC provides for up to 133,000 acre feet of CVP supply in a single dry year, not to exceed a total of 165,000 acre feet in three consecutive dry years. Under the LTRC, the CVP supply is available to EBMUD only in dry years when EBMUD's total stored water supply is forecast to be below 500,000 total acre feet on September 30 of each year.

EBMUD is developing the Bayside Groundwater Project in phases to provide a source of supplemental supply in dry years. Construction of the first phase (Bayside Groundwater Project Phase 1) was completed in 2010, allowing EBMUD to inject treated potable water into a deep aquifer in the South East Bay Plain Groundwater Basin for later extraction, treatment, and use during severe droughts. A permit from the Department of Public Health is required before the groundwater can be extracted and treated for municipal use. As described in Chapter 4 of the UWMP 2015, EBMUD's drought planning calls for using the Bayside Groundwater Project Phase 1 during the third year of multi-year droughts to provide up to one mgd of water to meet customer demands. Additional information on the Bayside Groundwater Project can be found in Section 5.3 and Appendix E of the UWMP 2015.

Chapter 5 of the UWMP 2015 also lists other potential supplemental water projects, including northern California water transfers, Bayside Groundwater Project Expansion, Expansion of Contra Costa Water District's Los Vaqueros Reservoir, and others that could be implemented to meet the projected long-term water supplemental need during multi-year drought periods. The UWMP 2015 identifies a broad mix of projects, with inherent scalability and the ability to adjust implementation schedules for particular components which will allow EBMUD to pursue the necessary supplemental supplies, while minimizing the risks associated with future uncertainties such as project implementation challenges and global climate change. The Environmental Impact Report that EBMUD certified for the Water Supply Management Program 2040 examined the impacts of pursuing these supplemental supply projects at a program level. Separate project-level environmental documentation will be prepared, as appropriate, for specific components as they are developed in further detail and implemented in accordance with EBMUD's water supply needs.

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In addition to pursuing supplemental water supply sources, EBMUD also maximizes resources through continuous improvements in the delivery and transmission of available water supplies and investments in ensuring the safety of its existing water supply facilities. These programs, along with emergency interties and planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area.

Water Conservation and Recycled Water Considerations

The proposed Project presents opportunities to incorporate water conservation measures. Conditions of approval for the implementation of the proposed Project should require that the Project comply with the California Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). EBMUD staff would appreciate the opportunity to meet with the City to discuss conservation measures. This meeting will explore early opportunities to expand water conservation via EBMUD's conservation programs and best management practices applicable to the Project.

Conservation strategies will be required to achieve water use reduction goals and restrictions, including compliance with Sections 29 and 31, described above, of EBMUD's Regulations Governing Water Service, and the Water Conservation Act of 2009. The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020.

The Project is not currently a candidate for recycled water. The Project is located about a mile away from the closest future planned recycled water pipeline within the City. Based on the location of the Project boundaries and on the residential, retail, and maritime nature of this Project with limited outdoor uses, EBMUD currently does not anticipate providing recycled water to any of the Project's components; however, the feasibility of providing recycled water to this area may change in the future. EBMUD encourages the City and its developers to continue to coordinate closely with EBMUD during the planning of the Project to further explore the options relating to recycled water.

The Project sponsor should contact Jennifer L. McGregor, Senior Civil Engineer, at (510) 287-1030 for further information.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning Division

DJR:JLM:dks
sb17_174_AlamedaMarina_WSA_AttB

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Enclosures: 1. Letter of Request for Water Supply Assessment dated July 24, 2017
2. EBMUD Urban Water Management Plan 2015

cc: Board of Directors w/o Enclosure 2

July 24, 2017

City of Alameda • California

Mr. David Rehnstrom
Water Distribution Planning
EAST BAY MUNICIPAL UTILITY DISTRICT
P.O. Box 24055
Oakland, CA 94623-1055

Subject: Request for Water Supply Assessment
Alameda Marina Master Plan
Alameda, California

Dear Mr. Rehnstrom:

The City of Alameda is submitting this letter to formally request East Bay Municipal Utility District (EBMUD) to prepare a water supply assessment (WSA) for the Alameda Marina Master Plan project, located in the City of Alameda Northern Waterfront Priority Development Area.

The City issued a Notice of Preparation (NOP) for this project on October 30, 2016, to which you responded on November 29, 2016 . The proposed amount of residential units in the Revised Project has been increased to approximately 780 units, which still triggers the requirement for a WSA to support the Environmental Impact Report. Accordingly, the City is requesting EBMUD prepare a WSA based on the Revised Project. The anticipated future water demands associated with the land uses included in this Revised Project are outlined below.

Table 1 – Revised Project
Estimates Potable Water Demand (Buildout)

Land Use	Units	SF	Acres	Avg. Daily Demand	Flow
Residential (Multi-Family)	779			165 GPD/Unit	128,535 GPD
Office & Manufacturing / Warehouse		140,985		0.084 GPD/SF	11,845 GPD
Retail & Service		12,187		0.15 GPD/SF	1,830 GPD
Park / Open Space			4.3	3,040 GPD/Acre	13,075 GPD
Marina Slips	530			22 GPD/Unit	11,660 GPD

Total Potable Water Demand 166,950 GPD

As outlined in Table 1, the estimated future average daily water demand associated with the revised project is approximately 170,000 gallons per day. The City is requesting EBMUD provide confirmation that adequate supply is available for Alameda Marina Master Plan EIR.

Please contact me at 510-747-6881 or athomas@alamedaca.gov if you need additional information.

Sincerely,

Andrew Thomas

Andrew Thomas, Assistant Community Development Director

AGENDA NO. 10.
MEETING DATE October 10, 2017

TITLE PLACER COUNTY WATER AGENCY MEMORANDUM OF UNDERSTANDING AMENDMENT NO. 2

☒ **MOTION** ☐ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Authorize the General Manager or his designee to execute Amendment No. 2 to the Memorandum of Understanding (MOU) between Placer County Water Agency (PCWA) and East Bay Municipal Utility District (EBMUD) dated August 15, 2013. The amendment modifies the interim water purchase pricing to align with water transfer market conditions in dry years.

SUMMARY

In August 2013, EBMUD and PCWA executed an MOU to develop a long-term water transfer project under which EBMUD would purchase PCWA's required environmental releases in dry years. That MOU included a provision under which EBMUD would have first right of refusal for water transfers at a rate of $75 per acre-foot during the interim period before that long-term agreement is executed. EBMUD executed a water transfer with Placer at that rate in 2014, and executed a second transfer at $500 per acre-foot in 2015. The proposed Amendment No. 2 to the MOU establishes new interim period cost provisions of $160 per acre-foot for the first dry year of a drought and $400 per acre-foot for the second and subsequent dry years during multi-year droughts. These water transfer rates continue to be a very good value based on historical rates.

DISCUSSION

EBMUD and PCWA are developing a long-term water transfer project that would enable PCWA to fulfill its Water Forum Agreement (WFA) commitments to release additional water from its reservoirs in dry years for the benefit of the lower American River while increasing water supply reliability for EBMUD. The parties executed a MOU on August 15, 2013 that outlines the roles, responsibilities, and cost-sharing commitments to develop the project. The MOU provides EBMUD with an exclusive option to negotiate a long-term water transfer agreement, in accordance with the terms set forth in the MOU, once all necessary environmental reviews and regulatory approvals have been completed. The MOU also gave EBMUD the first right of refusal for PCWA transfer water during the interim period before the long-term water transfer agreement is executed. According to the terms of the MOU, in 2014, EBMUD purchased 5,000 acre-feet of transfer water from PCWA at a price of $75 per acre-foot. During the severe drought of 2015, EBMUD

Funds Available: FY18	Budget Code: WSC/455/7999/2008813/5231	
DEPARTMENT SUBMITTING Water & Natural Resources	DEPARTMENT MANAGER or DIRECTOR Richard G. Sykes	APPROVED General Manager

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purchased 12,000 acre-feet of water from PCWA at a price of $500 per acre-foot. The higher purchase price was warranted to reflect the elevated open market prices of transfer water in 2015. Amendment No. 1 to the MOU was executed in June 2014 to define cost responsibilities for permitting work related to the 2014 water transfer.

Amendment No. 2 revises the interim purchase price of transfer water set in the MOU to better reflect water transfer market conditions. It recognizes that the transfer water price fluctuates depending on the water year classification and the scarcity of water during droughts. The purchase price proposed under this amendment is as follows:

- $160 per acre-foot in the first year of drought as defined by the WFA; and
- $400 per acre-foot in consecutive dry years starting from the second year.

Approval of this amendment supports EBMUD's Long-Term Water Supply Strategic Plan goal by ensuring adequate supply of water during times of drought.

SUSTAINABILITY

Economic

Funds for the water purchase would be drawn from the drought budget established by future drought surcharges.

Social

This amendment will provide supplemental water supplies for EBMUD in dry years during the interim period while a long-term water transfer project is being developed, and strengthen the long-term partnership with PCWA. Drought supplies support the service area by minimizing the hardships of severe rationing.

Environmental

All environmental compliance requirements, including the National Environmental Protection Act, will be met in the given year an interim one-year transfer is proposed. Short-term water transfers are exempt from California Environmental Quality Act requirements under Water Code section 1729. The proposed amendment would help ensure that PCWA environmental water is released to the lower American River, thus protecting that resource during droughts.

ALTERNATIVE

Do not approve the amendment. This alternative is not recommended because the amendment is needed to secure a short-term supplemental supply for EBMUD in drought years during the interim period while a long-term project with PCWA is being developed and strengthen the long-term partnership with PCWA.

EBMUD

AGENDA NO. 11.
MEETING DATE October 10, 2017

TITLE **DOS OSOS RESERVOIR REPLACEMENT PROJECT – ADOPT THE FINAL MITIGATED NEGATIVE DECLARATION AND PROJECT APPROVAL**

☐ **MOTION** ☒ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

- Adopt the Final Mitigated Negative Declaration (MND) for the Dos Osos Reservoir Replacement Project (Project).
- Make findings in accordance with the California Environmental Quality Act (CEQA).
- Adopt the Mitigation Monitoring and Reporting Plan in accordance with CEQA.
- Adopt the Practices and Procedures Monitoring and Reporting Plan.
- Approve the Project.

SUMMARY

Dos Osos Reservoir, constructed in 1955, is a 0.24-million-gallon (MG) reservoir located at 8 Los Norrabos in the City of Orinda. The reservoir will be replaced with new dual 0.12 MG reservoirs on District-owned watershed property approximately 70 feet higher in elevation and 300 feet southwest of the existing reservoir site. A new 12-inch pipeline will be constructed to connect the existing water distribution system to the new dual reservoirs and will be located in a new 800-foot-long, 12-inch-wide permanent access road. The Dos Osos Pumping Plant, constructed in 1968, is a 0.3-million-gallon-per-day pumping plant located at 263 El Toyonal in the City of Orinda. The Dos Osos Pumping Plant will be rehabilitated at the same capacity; however, it will be upgraded with pump units that can supply the new higher-elevation dual Dos Osos Reservoirs. Upon construction completion and successful testing of the new facilities, the existing Dos Osos Reservoir will be demolished. All Project element locations are shown on Attachment A. Improvements at the new Dos Osos Reservoirs site are shown on Attachment B.

A presentation on this Project was provided to the Planning Committee on October 10, 2017.

DISCUSSION

The Project was a recommendation from a regional study completed in July 2015 on the Encinal, Westside and Dos Osos Pressure Zones Cascade (Encinal Cascade Study) and the 2012 Infrastructure Rehabilitation Plan for Distribution Reservoirs, which ranked the Dos Osos

Funds Available: FY18-19; CIP 2009581; Page 18	Budget Code: WSC/522/7999/2009184	
DEPARTMENT SUBMITTING Engineering and Construction	DEPARTMENT MANAGER or DIRECTOR Xavier J. Irias	APPROVED General Manager

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Reservoir as a high priority for replacement. The Project will rehabilitate and replace aging infrastructure, improve water quality operations efficiency, and improve domestic and emergency water service reliability with an optimally-sized facility at a higher elevation. The Project supports the District's Long Term Infrastructure Investment Strategic Plan goal.

Environmental Review Process/Public Outreach

The MND for the Project was completed and circulated for a 31-day agency and public review period from May 19 through June 19, 2017. Postcards and notices were sent to approximately 90 residents and agencies; notices were also posted on the District's website, filed with the Contra Costa County Clerk, and published in the Contra Costa Times. One comment letter containing approximately ten individual comments was submitted during the MND public review period by a City of Orinda resident. Key comments focused on agricultural resources, aesthetics, Project objectives, growth inducement, biological resources, construction impacts, and geology and soils. The comment letter in its entirety, responses to the comments, and text edits to be added to the MND are all included in Appendix C, "Response to Comments," of the Final MND. The responses to comments and text edits to the MND do not identify new significant impacts but merely clarify information already presented in the MND.

MND Analysis and Mitigation Measures

The MND determined that Project-related construction work could potentially generate environmental impacts to biological resources, and geology and soils. The MND analysis concluded that potential impacts exist for:

- Special-status and sensitive plant and wildlife species, including the state- and federally-endangered Alameda whipsnake.
- Potentially unstable soils resulting from seismic-related ground failure, including landslides.
- Potentially unstable soils resulting from on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.

Appropriate mitigation measures will be implemented to reduce those potentially significant impacts to less than significant. Key mitigation measures include:

- Preconstruction training for construction personnel.
- Preconstruction surveys for special-status species.
- Species-specific avoidance and minimization measures during construction.
- Appropriate compensation for special-status species habitat impacts.
- Incorporation of geotechnical investigation recommendations into design and construction requirements.

A number of District standard construction specifications, standard practices from the District's Environmental Compliance Manual, Procedures, Design Guides, and Engineering Standard

Practices will also be incorporated into the Project. These standard specifications and standard practices are designed to address typical characteristics of District construction projects and reflect generally applicable District standard operating procedures.

Public Notice

A Notice of Availability (NOA) of the Final MND was mailed to responsible or trustee agencies and posted on the first floor of the District's Administration Building. A letter was sent to the one commenting individual notifying him of the Final MND and Board meeting to consider adoption of the Final MND. Copies of the Final MND were made available at the District offices in Oakland, posted on the District's website, and sent to the Orinda Public Library. Notice of the Board of Directors meeting was also included in the NOA for the Final MND.

Project Schedule

State and federal environmental permits, which may take two to three years to obtain, are required for special-status species protection before commencing Project design; the environmental permitting process is scheduled to begin upon Board adoption of the Final MND. Assuming receipt of environmental permits by 2020, design and construction of the Project will begin in 2021 and 2023, respectively.

SUSTAINABILITY

Economic

The estimated cost for design and construction of the Project is $7 million; funds for the design and construction will be required in the FY20-21 Capital Improvement Program (CIP) under the Encinal Cascade Pressure Zone Improvement Project. Funding for the planning phase was included in the FY18-19 CIP under Reservoir Rehabilitation/Maintenance.

Social

The District met with City of Orinda staff to discuss the Project and solicit input. Residents were also provided an opportunity to request a meeting to discuss the Project; no meeting requests were received.

The District's website features a Project page with information including the proposed schedule and Project-related documents. This page will be updated throughout construction.

Environmental

The Final MND identified and evaluated the potential environmental effects of the Project and included mitigation measures to lessen or eliminate adverse impacts to the environment.

Potential biological and geological impacts are considered less than significant with implementation of mitigation measures.

ALTERNATIVES

Do not adopt the Final MND or approve the Project. This alternative is not recommended because the Final MND meets CEQA requirements.

Do not proceed with the Project. This alternative is not recommended as this alternative does not satisfy the Project objectives which include the need to rehabilitate and replace aging infrastructure, improve water quality operations efficiency by removing excess water storage, and improve domestic and emergency water service reliability.

Attachments: A – Dos Osos Reservoir Replacement Project Site Location Map
B – Improvements at the New Dos Osos Reservoirs Site

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PROJECT SITE LOCATION MAP

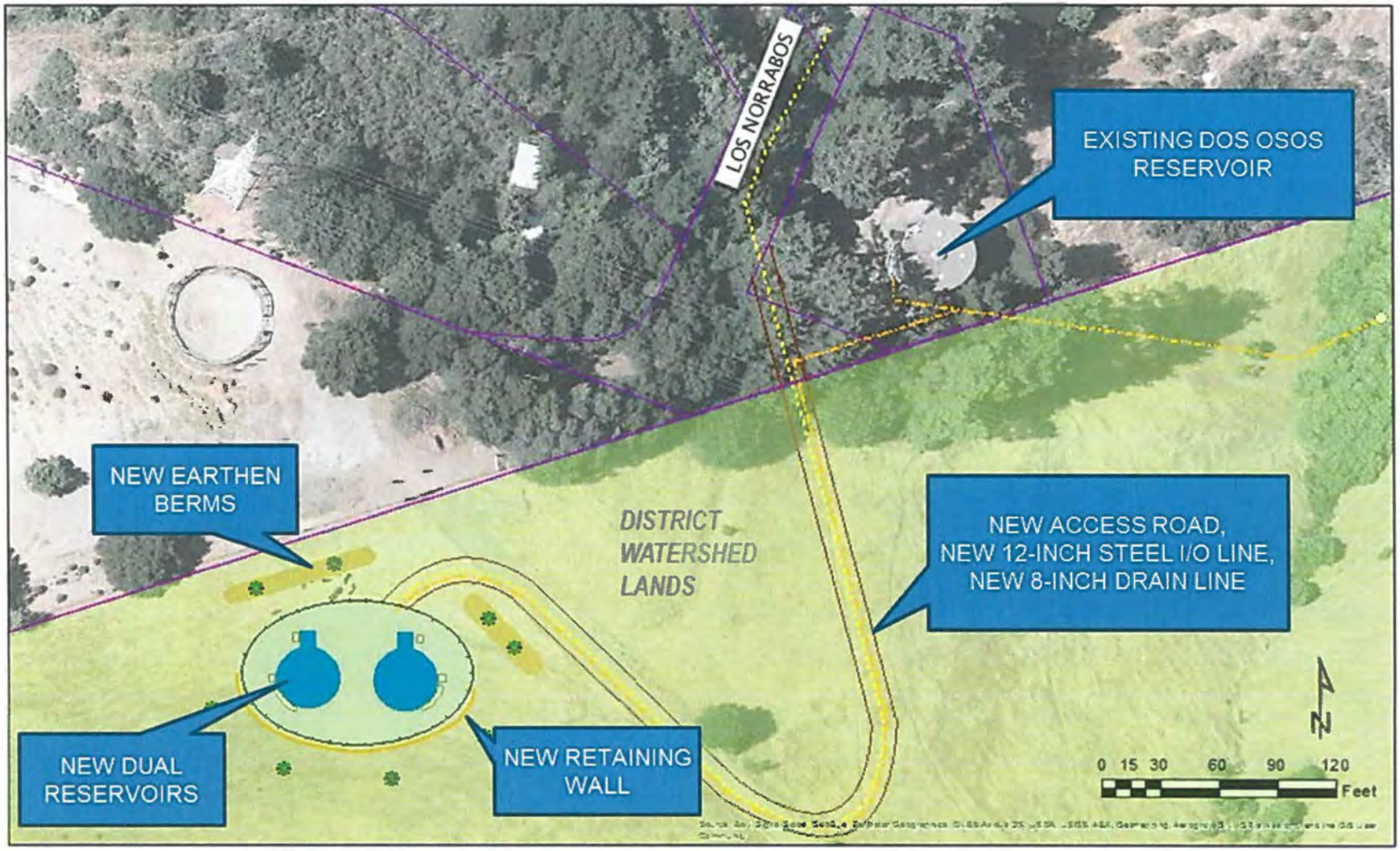
NOT TO SCALE

EAST BAY MUNICIPAL UTILITY DISTRICT

DOS OSOS RESERVOIR REPLACEMENT PROJECT

FIGURE 1

Attachment B



Draft Prepared By

Office of General Counsel

RESOLUTION NO._____

ADOPTING THE MITIGATED NEGATIVE DECLARATION FOR THE DOS OSOS RESERVOIR REPLACEMENT PROJECT, ADOPTING THE MITIGATION MONITORING AND REPORTING PLAN AND PRACTICES AND PROCEDURES MONITORING AND REPORTING PLAN, AND APPROVING THE PROJECT

Introduced by Director ; Seconded by Director

WHEREAS, the East Bay Municipal Utility District's ("EBMUD") Dos Osos Reservoir is a 0.24 million gallon ("MG") steel-welded reservoir constructed in 1955; and

WHEREAS, the reservoir has deficiencies, including: (1) being over 60 years old and near the end of its useful life; (2) being located too low in elevation, resulting in low-pressure areas in the Dos Osos Pressure Zone; (3) experiencing high water age, excess storage and poor water turnover during times of low customer demand, that has led to low chlorine residuals, thereby requiring changing reservoir operation levels to provide for deeper cycling of water in the reservoir; (4) a wooden roof that requires full replacement; and (5) a tank shell that was last recoated in 1997 and requires recoating due to its age and condition; and

WHEREAS, the Dos Osos Pumping Plant is a 0.3 million gallon per day pumping plant constructed in 1968, with two vertical turbine pump units, both installed in 1968; and

WHEREAS, the Dos Osos Pumping Plant has deficiencies, including: (1) inefficient pumps; (2) an obsolete switchboard and motor control center; and (3) component replacement parts that are difficult to find or non-existent due to equipment age; and

WHEREAS, EBMUD has determined that in order to remedy these deficiencies, it is most cost-effective to (1) replace the existing reservoir with new dual 0.12 MG reservoirs on EBMUD-owned watershed property, approximately 70 feet higher in elevation; (2) rehabilitate the Dos Osos Pumping Plant at the same capacity to pump to the higher elevation of the new dual reservoirs; and (3) demolish the existing Dos Osos Reservoir, collectively referred to as the Dos Osos Reservoir Replacement Project ("Project"); and

WHEREAS, EBMUD has incorporated into the Project requirements from its Standard Construction Specifications, Environmental Compliance Manual, Procedures, Engineering Standard Practices, and Reservoir Design Guide ("EBMUD Practices and Procedures"), as set forth in Appendix B to the Mitigated Negative Declaration ("MND") and described throughout the MND when applicable; and

WHEREAS, these EBMUD Practices and Procedures are standardized practices and procedures applicable to all EBMUD projects, are not tailored to address specific impacts of the Project, reflect generally applicable EBMUD standard operating procedures, and as such have been properly incorporated into the Project itself rather than being imposed as mitigation measures under the California Environmental Quality Act ("CEQA"); and

WHEREAS, nonetheless, to ensure their implementation and to streamline monitoring thereof, the EBMUD Practices and Procedures have been incorporated into a Practices and Procedures Monitoring and Reporting Plan for the Project; and

WHEREAS, in accordance with CEQA, EBMUD, as lead agency, prepared an Initial Study for the Project analyzing whether any potentially significant environmental impacts would result from the Project; and

WHEREAS, the Initial Study determined that with the implementation of mitigation measures, the Project would not result in any potentially significant environmental impacts; and

WHEREAS, on May 19, 2017, the Draft MND for the Project was completed by EBMUD as lead agency and circulated for review and comment, providing a 30-day comment period ending on June 19, 2017, in accordance with CEQA and applicable laws and regulations; and

WHEREAS, EBMUD provided a Notice of Intent ("NOI") to adopt the MND and copies of the MND to responsible or trustee agencies concerned with the Project, including the City of Orinda, the San Francisco Bay Regional Water Quality Control Board, the Bay Area Air Quality Management District, the Contra Costa County Department of Conservation and Development, the California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service; and by direct postcard mailing to approximately 90 property owners and occupants near the Project facilities; and

WHEREAS, EBMUD also published the NOI in the Contra Costa Times, and provided the MND for public review on the EBMUD website and at EBMUD's administrative offices in downtown Oakland; and

WHEREAS, EBMUD also provided copies of the Draft MND for public review at the main Orinda Public Library; and

WHEREAS, the Draft MND public review period concluded on June 19, 2017; and

WHEREAS, EBMUD received and responded to one comment letter on the MND, and subsequently modified portions of the MND to provide further clarity and to address concerns raised in the letter; and

WHEREAS, EBMUD prepared a Final MND, which includes responses to all comments on the MND and textual clarifications made to the MND in response to those comments; and

WHEREAS, EBMUD sent a Notice of Availability of the Final MND to all commenting public agencies, commenting residents, and affected local agencies on September 28, 2017; and

WHEREAS, EBMUD has prepared a detailed Mitigation Monitoring and Reporting Plan ("MMRP") and Practices and Procedures Monitoring and Reporting Plan, attached hereto as Exhibits B and C and incorporated herein by this reference;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the East Bay Municipal Utility District ("Board of Directors") does hereby find, determine and certify that:

1. The above recitals are incorporated as if set forth herein.

2. The Final MND has been presented to the Board of Directors along with all comments received. The Board of Directors have reviewed and considered the information contained therein prior to approving the Project, and the Final MND reflects the Board of Directors' independent judgment and analysis.

3. All proceedings of the environmental review process, including circulation of the MND and all required notices, have been conducted and completed in accordance with CEQA, the CEQA Guidelines, and all other applicable laws, regulations, and procedures.

4. The potential environmental impacts of the Project are fully disclosed in the Final MND, and the Final MND is adequate for use by EBMUD for approval, design and construction of the Project.

5. The documents and materials constituting the record of the proceeding are located at EBMUD's administrative offices, 375-11th Street, Oakland, CA 94607. The custodian of these records is the Secretary of the District.

6. No substantial change in circumstances has occurred since preparation of the Final MND which would require substantial revisions to the Final MND or preparation of an Environmental Impact Report ("EIR") due to the discovery or disclosure of new, significant impacts not covered in the Final MND or due to a determination that proposed mitigation measures would not reduce impacts to less-than-significant levels, and there is no requirement to recirculate the Final MND or prepare an EIR.

7. The Board of Directors makes the findings and determinations regarding the Project set forth in the Findings, attached hereto as Exhibit A. Exhibit A is hereby incorporated into this Resolution by this reference.

8. The Board of Directors hereby approves, adopts, and imposes the MMRP, attached hereto as Exhibit B and incorporated herein by this reference. The mitigation measures set forth in the MMRP and adopted by the Board of Directors are hereby imposed as conditions of Project approval.

9. The Board of Directors hereby approves, adopts, and imposes the Practices and Procedures Monitoring and Reporting Plan, attached hereto as Exhibit C and incorporated herein by this reference. The EBMUD Practices and Procedures set forth in Exhibit C and adopted by the Board of Directors are hereby imposed as conditions of Project approval.

BE IT FURTHER RESOLVED that in accordance with CEQA, the Board of Directors determines that impacts identified in the MND as potentially significant will be reduced to a less-

than-significant level because EBMUD has made or agreed to Project revisions and/or mitigation measures. EBMUD, acting as lead agency, has therefore determined that a MND is appropriate for this Project.

BE IT FURTHER RESOLVED that based on the whole record before it, including the MND and comment letter received, the Board of Directors finds that there is no substantial evidence that the Project will have a significant effect on the environment. Therefore, the MND is hereby adopted as having been completed in compliance with CEQA.

BE IT FURTHER RESOLVED that the Project as described in Exhibit A hereto, is hereby approved.

BE IT FURTHER RESOLVED that the General Manager is hereby directed to take such actions as shall be necessary to implement the Project as described in the Final MND, subject to compliance with all mitigation measures set forth in the MMRP attached hereto as Exhibit B and all EBMUD Practices and Procedures set forth in Exhibit C.

BE IT FURTHER RESOLVED that the Secretary of the District is hereby directed to file a Notice of Determination, in accordance with the law, with the County Clerk of Contra Costa County and with the State Clearinghouse.

ADOPTED this 10th day of October, 2017 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
President

ATTEST:

_____
Secretary

APPROVED AS TO FORM AND PROCEDURE:

_____
General Counsel

{00019427;5}

EXHIBIT A

EBMUD BOARD OF DIRECTORS FINDINGS REGARDING THE DOS OSOS RESERVOIR REPLACEMENT PROJECT

1. Introduction

This is the findings document adopted by the East Bay Municipal Utility District (EBMUD) Board of Directors for the Dos Osos Reservoir Replacement Project (Project). As approved by the Board of Directors, the Project includes:

- Replacement of EBMUD's existing 0.24 million gallon (MG) Dos Osos Reservoir with new dual 0.12-MG steel-bolted reservoirs on EBMUD-owned watershed property approximately 70 feet higher in elevation,
- Rehabilitation of EBMUD's existing 0.3 million-gallons-per-day (MGD) Dos Osos Pumping Plant at the same capacity with upgraded with pump units that can pump to the higher elevation of the new dual Dos Osos Reservoirs, and
- Demolition of the existing Dos Osos Reservoir upon construction completion and successful testing of the new facilities.

Sections 1.1 through 1.2 of this document describe the Project, its objectives, and the need to complete the Project.

Section 2, "Findings Regarding Independent Review and Judgment," contains the findings regarding the independent review and judgment of the Board of Directors.

Section 3, "Findings Regarding the Project," contains the findings regarding potential Project impacts.

Section 4, "Findings Related to Potential Growth Inducing Impacts," contains findings regarding Project's potential to induce growth.

Section 5, "Findings Related to Mitigated Negative Declaration (MND) Recirculation and EIR Preparation," contains findings regarding whether MND recirculation or EIR preparation is necessary.

Section 6, "Findings Related to Project Approval," contains findings approving the Project.

1.1. Project Description

Dos Osos Reservoir, constructed in 1955, is a 0.24 MG reservoir located at 8 Los Norrabos in the City of Orinda. The reservoir will be replaced with new dual 0.12 MG reservoirs on District-owned watershed property approximately 70 feet higher in elevation, 300 feet southwest of the existing reservoir site. A new 12-inch pipeline will be constructed to connect the existing water distribution system to the new dual reservoirs and will be located in a new permanent access road, approximately 12-feet wide, 800-feet long. The Dos Osos Pumping Plant, constructed in

1968, is a 0.3 MGD pumping plant located at 263 El Toyonal in the City of Orinda. The plant will be rehabilitated at the same capacity; however, it will be upgraded with pump units that can supply the new higher elevation dual Dos Osos Reservoirs. Upon construction completion and successful testing of the new facilities, the existing Dos Osos Reservoir will be demolished.

1.2. Project Need and Objectives

The Dos Osos Pressure Zone is served by the steel-welded Dos Osos Reservoir, which is supplied by the Westside Pressure Zone through the Dos Osos Pumping Plant. The Dos Osos Reservoir is located at the end of Los Norrabos. Constructed in 1955, the Dos Osos Reservoir is approximately 38 feet in diameter and 32 feet high and has an operating capacity of 0.24 MG. The deficiencies of the existing Dos Osos Reservoir include:

- The reservoir is over 60 years old and near the end of its useful life.
- The reservoir is located too low in elevation resulting in low-pressure areas along Alta Vista and Lomas Cantadas.
- High water age, excess storage, and poor water turnover, has led to low chlorine residuals during times of low customer demand thereby increasing water quality operations.
- During winter demands, the Dos Osos Reservoir is approximately eight times larger than needed, which leads to water quality operational challenges.
- The wooden roof requires replacement, including the wooden and steel roof frame.
- The ladder leading to the roof requires replacement with stairs.
- The tank shell was last recoated in 1997 and requires recoating due to its age and condition.

The existing Dos Osos Pumping Plant is a 0.3 MGD pumping plant, constructed in 1968, containing two vertical turbine pump units, both installed in 1968. The Dos Osos Pumping Plant is on the same site as the Westside Reservoir, a steel-bolted tank replaced in 2005. Since the new Dos Osos Reservoirs will be located at a higher elevation, the Dos Osos Pumping Plant units need to be upgraded to pump water to the higher elevation of the new dual reservoirs. The new pump units will be housed within the existing Dos Osos Pumping Plant building.

The mechanical and electrical equipment within the Dos Osos Pumping Plant is 49 years old and has exceeded its useful life. The deficiencies of the existing Dos Osos Pumping Plant equipment include:

- Inefficient pumps.
- The switchboard and motor control center were installed in 1968; they are obsolete and have no spare parts available.
- Spare parts are difficult to find or non-existent due to the age of the pumping plant equipment.

The Project objectives include:

- Rehabilitate and replace critical aging water distribution facilities; and,
- Improve level of service in the pressure zone by raising the elevation of the proposed new dual Dos Osos Reservoirs and minimizing low-pressure areas; and,
- Increase operational flexibility in the pressure zone by replacing the existing Dos Osos Reservoir with new dual Dos Osos Reservoirs.

2. Findings Regarding Independent Review and Judgment

Each member of the EBMUD Board of Directors (Board) was provided access to a complete electronic copy of the MND, as well as a copy of the Mitigation Monitoring and Reporting Program (MMRP) and Practices and Procedures Monitoring and Reporting Plan in May 2017 and of the Final MND, including the one comment letter received and responses thereto, in September 2017.

The Board hereby finds that the Final MND reflects the Board's own independent judgment, and that the Board has independently reviewed and analyzed the Final MND together with the comments received during the public review process and the MMRP and Practices and Procedures Monitoring and Reporting Plan prior to taking any final action with respect to the proposed Project.

3. Findings Regarding the Project

Having received and considered the information contained in the Final MND, the comments on the MND, and the MMRP and Practices and Procedures Monitoring and Reporting Plan, the EBMUD Board of Directors hereby adopts the following findings regarding Project impacts.

3.1. Findings Regarding Construction Standard Specifications and Practices

EBMUD hereby finds that the requirements from its Standard Construction Specifications, Environmental Compliance Manual, Procedures, Design Guides, and Engineering Standard Practices (Practices and Procedures) set forth in Exhibit C have been incorporated into the Project and are required to be implemented. As explained below in these Findings, inclusion of these Practices and Procedures in the Project results in reduced environmental impacts.

3.2. Findings Regarding Significant and Unavoidable Effects

The Board hereby finds, based on the whole record (including the MND and the comments received), that there is no substantial evidence that the Project will have a significant and unavoidable effect on the environment.

3.3. Findings Regarding Significant Effects Mitigated to Less Than Significant Levels

It has been determined that mitigation measures proposed in the Final MND, and as set forth in the MMRP, will avoid or mitigate the effects shown below to less than significant levels.

3.3.1. Biological Resources

3.3.1.1. Impact Biological Resources a): Potential to have a substantial adverse impact, either directly or through habitat modifications on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish & Wildlife or U.S. Fish & Wildlife Service.

Findings

During construction and/or demolition at the existing Dos Osos Reservoir and new dual Dos Osos Reservoirs sites, special-status animal species with a moderate potential to occur at either site have the potential to be impacted by construction activities, including clearing, grading, excavation, stockpiling, and demolition. At the existing Dos Osos Pumping Plant site, construction activities are limited to replacement of existing electrical and mechanical equipment within the existing pumping plant building, so special-status animal species will not be impacted by clearing, grading, excavation, stockpiling or demolition construction activities. Wildlife exclusion fencing would allow for the egress of special-status animal species from designated construction sites and would prevent re-entry of special-status animal species to designated construction sites. Implementation of Mitigation Measure BIO-5 would reduce the potential impacts from the occurrence of special-status animal species in designated construction sites at the existing Dos Osos Reservoir and new dual Dos Osos Reservoirs sites to less than significant levels.

Special Status Plants

No special-status plants have the potential to occur at the existing Dos Osos Pumping Plant or existing Dos Osos Reservoir sites, because both sites are currently paved.

Clearing and grubbing, grading and the movement of equipment may impact sensitive plant species at the new dual Dos Osos Reservoirs site. Sensitive plant species include all special-status and rare plants. Implementation of Mitigation Measure BIO-1 would reduce the potential impacts to sensitive plant species to less than significant levels.

Special Status Amphibians

The one special-status amphibian that has recorded occurrences within a five-mile radius of the Project sites is the California red-legged frog (*Rana draytonii*) (CRLF); however, there are no California Natural Diversity Database (CNDDB) CRLF observations within one mile of the Project sites. The Project sites are outside critical habitat for this species. There is no aquatic habitat at any of the Project sites and limited potential for upland estivation or dispersal at the sites. For these and other reasons set forth in the MND, there will be no impacts to CRLFs.

Special Status Reptiles

The new dual Dos Osos Reservoirs site is within United States Fish and Wildlife Service (USFWS)-designated critical habitat for the Alameda whipsnake, and the existing Dos Osos Reservoir site is directly adjacent to USFWS-designated critical habitat for the Alameda whipsnake. As a result, there is high potential for the whipsnake to occur on these sites. In contrast, there is low potential for the species to occur at the pumping plant site due to that site's location situated in a suburban neighborhood surrounded by oak woodlands, outside of critical habitat, and without the primary constituent elements for the whipsnake. Given the species' potential presence at these sites, there is the potential for Project construction activities to cause significant impacts. Implementation of Mitigation Measure BIO-2 would reduce the potential impacts to Alameda whipsnakes at the new dual Dos Osos Reservoirs site and the existing Dos Osos Reservoir site and the existing Dos Osos Pumping Plant site to less than significant levels.

San Francisco Dusky-Footed Woodrat

The new dual Dos Osos Reservoirs and access road construction and demolition of the existing Dos Osos Reservoir could lead to the loss of San Francisco dusky-footed woodrat nests and the mortality of woodrats. Implementation of Mitigation Measure BIO-3 would reduce the potential impacts to the San Francisco dusky-footed woodrat at the new dual Dos Osos Reservoirs site and the existing Dos Osos Reservoir site to less than significant levels.

Special Status Invertebrates

The Bridges' coast range shoulderband snail is not a federal- or state-listed species, but the snail is designated a "Special Animal" by California Department of Fish and Wildlife (CDFW) due to its history of being reviewed as a candidate for federal listing, and, as such, occurrences of the snail are tracked by CDFW in the CNDDB. Grubbing, grading and the movement of equipment may cause direct mortality if the species is present at the new dual Dos Osos Reservoirs site during construction activities. Implementation of Mitigation Measure BIO-4 would reduce the potential impacts to the Bridges' coast range shoulderband snail at the new dual Dos Osos Reservoirs site to less than significant levels.

Special Status Nesting Birds

Avian species that are protected under the Migratory Bird Treaty Act (MBTA) have high potential to nest within all three Project sites (existing Dos Osos Pumping Plant, existing Dos Osos Reservoir, and new dual Dos Osos Reservoirs). Suitable nesting habitat for various raptors, as well as other migratory bird species, is present on or near the Project sites. Impacts to potential nesting habitat could occur during construction as a result of tree and shrub removal, ground disturbance, equipment movement, or by direct mortality. Potential impacts on migratory birds include the

destruction of eggs or occupied nests, direct mortalities of young, and the abandonment of nests with eggs or young birds prior to fledging. Potentially significant impacts could result from Project construction activities that would destroy occupied nests or cause migratory birds to abandon their nests. However, incorporation into the Project of Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.8, Protection of Birds Protected under the Migratory Treaty Act and Roosting Bats ensures that impacts to these special status nesting birds would be less than significant.

Roosting Bat Species

Roosting (shelter) habitat is present for bat species at all three Project sites (existing Dos Osos Pumping Plant, existing Dos Osos Reservoir, and new dual Dos Osos Reservoirs). The pallid bat (*Antrozous pallidus*) has a moderate potential to occur at the new dual Dos Osos Reservoirs site, as there is one CNDDB record of this species within one mile of the site, and mature oak trees may provide roosting habitat for this species. Construction activities may result in the removal or disturbance of hibernation or maternal roost sites, if they are present at the Project sites, due to noise or human traffic, and constitute a potentially significant impact to bat roosting habitat as it may result in direct mortality and reduction in the reproductive success. However, incorporation into the Project of Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.8, Protection of Birds Protected under the Migratory Treaty Act and Roosting Bats ensures that impacts to these special status nesting birds would be less than significant.

Bats typically forage in and over woodlands, scrub, pasture lands, field margins and water. Suitable foraging habitat is located directly adjacent to the Project sites. However, the pallid bat typically forages one to two miles from its day and night roosts. Because bats are able to travel great distances to forage, potential impacts to bat foraging habitats are considered less than significant.

Facts in Support of Findings

Mitigation Measure BIO-1, BIO-2, BIO-3, BIO-4, and BIO-5 are hereby adopted by EBMUD and will be implemented as set forth in the MMRP.

Because Mitigation Measure BIO-1 requires EBMUD to conduct preconstruction surveys for sensitive plants, notify appropriate agencies if any sensitive plant species are found, and coordinate with regulatory agencies to comply with appropriate species-specific avoidance and minimization measures, the potential for significant construction-related impacts on sensitive plants will be reduced to less than significant levels.

The Project has the potential to take individual Alameda whipsnakes if they are present in the area during construction and the potential to significantly impact long-term Alameda whipsnake habitat due to construction of the new dual Dos Osos

Reservoirs. Because Mitigation Measure BIO-2 mitigates the potential impacts to the Alameda whipsnake by requiring EBMUD to obtain necessary permits from USFWS and CDFW for the Alameda whipsnake, environmental awareness training for construction workers for the Alameda whipsnake, preconstruction surveys for Alameda whipsnakes, the cessation of work if any Alameda whipsnakes are encountered, a monitoring plan submitted to the USFWS and CDFW regarding any actions taken for the Alameda whipsnake, and EBMUD's purchase of habitat credits for Alameda whipsnake critical habitat from a conservation or mitigation bank at a ratio of 1:3, implementation of Mitigation Measure BIO-2, would reduce impacts from short-term construction activities and permanent habitat loss to the Alameda whipsnake to less than significant levels.

Because Mitigation Measure BIO-3 requires preconstruction dusky-footed woodrat surveys, avoidance measures and buffer zones for active nests, and mitigations for both occupied and unoccupied nests, implementation of Mitigation Measure BIO-3 would reduce impacts, due to short-term construction, on the San Francisco dusky-footed woodrat to less than significant levels.

Because Mitigation Measure BIO-4 requires a preconstruction survey for the Bridges' coast range shoulderband snail and capture, and relocation of any Bridges' coast range shoulderband snails found on the new dual Dos Osos Reservoirs site, implementation of Mitigation Measure BIO-4 would reduce short-term construction impacts to the Bridges' coast range shoulderband snail to less than significant levels.

By being present at the new dual Dos Osos Reservoirs and existing Dos Osos Reservoir sites during construction, special-status animal species have the potential to be injured or harmed by short-term construction activities and heavy construction equipment. Because Mitigation Measure BIO-5 requires fencing that would allow for the egress of special-status animal species from designated construction sites and would prevent re-entry of special-status animal species to designated construction sites, implementation of Mitigation Measure BIO-5 and Mitigation Measures BIO-2 through BIO-4 at the new dual Dos Osos Reservoirs and existing Dos Osos Reservoir sites would reduce short-term construction impacts to special-status species to less than significant levels.

Because Section 3.8, Protection of Birds Protected under the Migratory Treaty Act and Roosting Bats, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project, and includes provisions for preconstruction nesting bird surveys, avoidance of construction during the nesting season, and delineation of avoidance buffer zones, impacts to migratory birds, including destruction of potential nesting habitat, eggs or occupied nests, direct mortalities of young, and the abandonment of nests with eggs or young birds prior to fledging, would be less than significant.

Because Section 3.8, Protection of Birds Protected under the Migratory Treaty Act and Roosting Bats, of EBMUD's Standard Construction Specification 01 35 44,

Environmental Requirements, will be implemented as part of the Project, which addresses impacts to roosting bats and includes provisions for preconstruction roosting bat surveys, avoidance of construction during bat roosting season, delineation of avoidance buffer zones, and roosting monitoring during construction, impacts to roosting bats would be less than significant.

3.3.2. Geology and Soils

3.3.2.1. Impact Geology and Soils a) iii), a) iv) and c): Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, or landslides, and potential to be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Findings

Based on geologic maps, the new dual Dos Osos Reservoirs site is underlain by weakly consolidated pebble conglomerate, sandstone, claystone and siltstone (including the Orinda and Siesta Formations), which are susceptible to liquefaction, subsidence, lateral spreading and landslides. A number of small landslides are present in the vicinity of the Project site, and the potential for further landslides to continue in the future would be a potentially significant impact. In addition, while there is not an active seismic source located at the new dual Dos Osos Reservoirs site, there are areas of the site that may be composed of loose clayey sand and silty sand that are subject to liquefaction. However, construction of the new dual Dos Osos Reservoirs will require excavation (cut) into the existing slopes, which entails removal of any and all overburden or topsoil within the dual reservoirs' site footprint which would substantially remove all soils with the greatest liquefaction and lateral spreading potential.

Implementation of Mitigation Measures GEO-1 through GEO-4 would reduce the potential impacts related to seismic-related ground failure, landslides, lateral spreading, subsidence, liquefaction, and collapse to less than significant levels.

Facts in Support of Findings

Mitigation Measures GEO-1 through GEO-4 are hereby adopted by EBMUD and will be implemented as set forth in the MMRP.

Because these mitigation measures will be implemented, and these measures require incorporation of a geotechnical investigation of the dual reservoirs site into construction and design requirements and the implementation of all recommendations from the geotechnical investigation (including potential soil replacement and landslide deposit removal and slope stabilization techniques), impacts related to

seismic-related ground failure, landslides, lateral spreading, subsidence, liquefaction, and collapse would be reduced to less than significant levels.

3.3.3. Mandatory Findings of Significance

3.3.3.1. Impact Mandatory Findings of Significance a): Potential for the project to have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

Findings

The Project has the potential to cause significant impacts related to Biological Resources and Geology and Soils. Implementation of Mitigation Measures BIO-1 through BIO-5 and GEO-1 through GEO-4 would reduce the potentially significant biological resource and geology and soils impacts to less than significant levels.

Facts in Support of Findings

Mitigation Measures BIO-1 through BIO-5 and GEO-1 through GEO-4 are hereby adopted by EBMUD and will be implemented as set forth in the MMRP.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project. For impacts related to Aesthetics, Air Quality, Cultural Resources, Greenhouse Gases, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise and Transportation and Traffic, the relevant EBMUD standard practices and procedures discussed in the MND ensure that impacts would be less than significant.

The Project has the potential to significantly reduce the number or restrict the range of a rare or endangered plant or animal including the state- and federally-protected Alameda whipsnake. The new dual Dos Osos Reservoirs site occurs on federal critical habitat for the Alameda whipsnake, but Mitigation Measure B10-2 ensures that that impacts to the species would be mitigated to less than significant levels. Because Mitigation Measures BIO-1 through BIO-5 will be implemented, and these measures require avoidance and minimization measures for special-status species, any potential biological impacts to special-status species plants, reptiles, mammals and invertebrates with the potential to occur at the Project sites will be reduced to less than significant levels.

The Project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or eliminate important

examples of the major periods of California history or prehistory, as described in the Biological Resources and Cultural Resources environmental discipline sections of the Final MND.

3.3.3.2. Impact Mandatory Findings of Significance c): Potential for the project to have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

Findings

The Project has the potential to cause significant impacts related to Biological Resources and Geology and Soils, with potential environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. Implementation of Mitigation Measures BIO-1 through BIO-5 and GEO-1 through GEO-4 would reduce the potentially significant biological resource and geology and soils impacts to less than significant levels.

Facts in Support of Findings

Mitigation Measures BIO-1 through BIO-5 and GEO-1 through GEO-4 are hereby adopted by EBMUD and will be implemented as set forth in the MMRP.

As described above, the Project has the potential to cause significant impacts related to Biological Resources and Geology and Soils. Mitigation measures have been identified that would reduce these impacts to less than significant levels.

Also, as detailed in Section 3.1 above, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project. For impacts related to Aesthetics, Air Quality, Cultural Resources, Greenhouse Gases, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise and Transportation and Traffic, the relevant EBMUD standard practices and procedures discussed in the MND ensure that impacts from environmental effects which will cause substantial adverse effects on human beings would be less than significant.

3.4. Findings Regarding Less than Significant Effects

It has been determined that the following effects would be less than significant or have no impact, and no mitigation is needed.

3.4.1. Aesthetics

3.4.1.1. Impact Aesthetics a): Potential to have a substantial adverse effect on a scenic vista.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section I.a, Aesthetics).

Facts in Support of Findings

The proposed rehabilitation of the existing Dos Osos Pumping Plant located at 263 El Toyonal consists of replacing existing pump units with new units within the existing pumping plant structure. Proposed pumping plant rehabilitation short- and long-term activities will not affect a scenic vista.

The proposed demolition of the existing Dos Osos Reservoir will result in the complete removal of all existing facilities from the site at 8 Los Norrabos, thereby leaving the site in a more natural state. As such, no impacts to aesthetics will occur at the site of the existing Dos Osos Reservoir.

The existing Dos Osos Reservoir site and a portion of the new access road lie within a "ridgeline" identified as an area of great visual importance to the City of Orinda, and may be considered a designated scenic vista. The Project's access road will require removal of five trees, but mature trees on site will be protected and preserved to the extent possible as part of the Project, thus ensuring impacts on the ridgeline will be less than significant.

Because Section 3.7, Protection of Native and Non-Native Protected Trees, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project, and includes provisions for tree protection Best Management Practices (BMPs), and because earthen berms and planted trees around the dual reservoirs and tree protection measures have been incorporated into the Project, which would screen the new dual reservoirs and protect existing trees, Project impacts related to effects on a scenic vista will be less than significant.

3.4.1.2. Impact Aesthetics b): Potential to substantially damage scenic resources, including but not limited to, trees, rock outcropping, and historic buildings within a state scenic highway.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section I.b, Aesthetics).

Facts in Support of Findings

None of the Project sites are located within a state scenic highway. The Project sites are not visible from California State Highway 24, a designated state scenic highway. Therefore, no impacts to scenic resources within a state scenic highway will occur.

3.4.1.3. Impact Aesthetics c): Potential to substantially degrade the existing visual character or quality of the site and its surroundings.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section I.c, Aesthetics).

Facts in Support of Findings

With relocation of the new dual Dos Osos Reservoirs to a higher elevation to eliminate existing pressure deficiencies, there is a possibility for the Project to cause aesthetic impacts on the new dual reservoirs site and in the surrounding area. Figures 3.1 through 3.6 in the Final MND show that the Project will have less than significant impacts on short- and long-distance views due to the lack of sensitive receptors at short range vantage points, and the distance of Project facilities from sensitive receptors at long range vantage points.

Because the new dual reservoirs' orientation, exterior colors, and excavation into the hillslope below existing grades will screen the new dual reservoirs from short- and long-distance views, and the Project includes construction of earthen berms and the planting of trees that will screen the new dual reservoirs from short- and long-distance views, the Project will not degrade the existing visual character or quality of the site, and impacts would be less than significant.

3.4.1.4. Impact Aesthetics d): Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section I.d, Aesthetics).

Facts in Support of Findings

The new dual reservoirs will not introduce new light sources or glare to the site. Therefore, no impacts to day or nighttime views in the area will occur.

3.4.2. Agriculture and Forestry Resources

3.4.2.1. Impact Agriculture a): Potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section II.a, Agriculture and Forestry Resources).

Facts in Support of Findings

None of the Project sites are designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The existing Dos Osos Pumping Plant site and existing Dos Osos Reservoir site are located on low-density, residential-zoned areas within the City of Orinda. The new dual Dos Osos Reservoirs site is located on watershed lands owned by EBMUD with open space and watershed management uses, and within EBMUD's Siesta Valley grazing allotment. Objectives of EBMUD's livestock grazing program include managing vegetation (e.g., for fire hazard reductions); minimizing or eliminating livestock grazing to protect water quality, biodiversity, fire control or other management objectives; and generating livestock grazing revenue. The only livestock grazing allowed in the Siesta Valley allotment is dry season livestock grazing. This dry season grazing varies from year-to-year depending on weather patterns, noxious weed populations, and fire fuel density. EBMUD's livestock grazing program objectives would continue to be met following the construction of the new dual reservoirs. While the Project will reduce by a small fraction the amount of available grazing land, livestock would continue to be permitted to graze in over 99 percent of the Siesta Valley grazing allotment, including in the vicinity of the new dual reservoirs. Therefore, no impacts from converting Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use will occur.

3.4.2.2. Impact Agriculture b): Potential to conflict with existing zoning for agricultural use, or a Williamson Act contract.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section II.b, Agriculture and Forestry Resources).

Facts in Support of Findings

None of the Project sites are currently zoned for agricultural use nor are any under a Williamson Act contract for agricultural preservation. Therefore, no impacts from

conflicts with existing zoning for agricultural use, or a Williamson Act contract will occur.

3.4.2.3. Impact Agriculture c): Potential to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51140(g)).

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section II.c, Agriculture and Forestry Resources).

Facts in Support of Findings

None of the Project sites are currently zoned for forest land, timberland, or timberland zoned Timberland Production. Therefore, no impacts from conflict with existing zoning for, or cause rezoning of, forest land or timberland will occur.

3.4.2.4. Impact Agriculture d): Potential to result in the loss of forest land or conversion of forest land to non-forest use.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section II.d, Agriculture and Forestry Resources).

Facts in Support of Findings

None of the Project sites will involve changes that would result in loss of forest land or conversion of forest land to non-forest use. The Project sites do not occur on forest land. Therefore, no impacts that would result in the loss of forest land or conversion of forest land to non-forest use will occur.

3.4.2.5. Impact Agriculture e): Potential to involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section II.e, Agriculture and Forestry Resources).

Facts in Support of Findings

None of the Project sites will involve changes that would result in conversion of Farmland to non-agricultural use. The Project sites do not occur on Farmland. Therefore, no impacts to the existing environment which could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use will occur.

3.4.3. Air Quality

3.4.3.1. Impact Air Quality a): Potential to conflict with or obstruct implementation of the applicable air quality plan.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section III.a, Air Quality).

Facts in Support of Findings

The Bay Area Air Quality Management District (BAAQMD) Bay Area 2010 Clean Air Plan (2010 CAP) provides a comprehensive plan to improve Bay Area air quality and protect public health. The Project would not conflict with the implementation of the 2010 CAP during the construction phase. General estimated basin-wide, construction-related emissions are included in BAAQMD emission inventory and are not expected to prevent attainment or maintenance of the ozone, particulate matter, and carbon monoxide levels within the Bay Area. Thus, short-term construction of the Project components would have no impact and would not conflict with or obstruct implementation of any applicable air quality plans.

The rehabilitated Dos Osos Pumping Plant and new dual reservoirs will be powered by electricity. Thus, the facility will not emit exhaust, fumes, or other emissions during operation of the pumps or new dual reservoirs. Therefore, pumping plant and reservoir operational impacts related to air quality plans from the proposed Project would have no impact.

3.4.3.2. Impact Air Quality b) and c): Potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation, or potential to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section III.b. and c., Air Quality).

Facts in Support of Findings

The Bay Area is designated as non-attainment for state standards for both PM10 and PM2.5 and is designated as non-attainment for the national 24-hour fine particulate matter (PM2.5) standard. Also, the Bay Area region is designated as non-attainment for both the one-hour and eight-hour state ozone standards.

Project construction activities can result in fugitive dust, which contributes to particulate matter levels. The Project will also result in short-term diesel- and gasoline-powered construction equipment emissions that contain organic gases and oxides of nitrogen, which are considered to be ozone precursors. However, given the small size of the Project (approximately half-an-acre construction footprint), the limited number of truck and vehicle trips (Table 2.1), and the limited number of pieces of heavy equipment in use at any one time, and because Section 1.3E, Dust Control and Monitoring Plan; Section 1.3I, Tuneup Logs; Section 3.3B, Dust Control; and Section 3.4A, Air Quality and Emissions Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and require a Dust Control and Monitoring Plan, regular maintenance of construction vehicles and equipment, and include provisions for BMPs for dust and air quality emissions control, the Project's air quality impacts related to short-term construction particulate matter impacts and short-term diesel- and gasoline-powered construction equipment emissions will be less than significant.

There will be no operational emissions from the rehabilitated Dos Osos Pumping Plant or the new dual Dos Osos Reservoirs. Thus, pumping plant and reservoir operational impacts related to air quality standards would have no impact.

3.4.3.3. Impact Air Quality d): Potential to expose sensitive receptors to substantial pollutant concentrations.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section III.d, Air Quality).

Facts in Support of Findings

At the existing Dos Osos Pumping Plant, the nearest sensitive receptor is a residence 100 feet from the pumping plant, at approximately the same elevation. However, the exposure of this sensitive receptor to short-term substantial pollutant concentrations will be less than significant, because the pumping plant rehabilitation consists of replacing electrical and mechanical equipment inside the existing pumping plant building and the temporary use of an electric portable pump.

The nearest sensitive receptor to the existing Dos Osos Reservoir and new dual reservoirs site is a residence at 9 Los Norrabos, located approximately 160 feet from and 30 feet higher than the existing reservoir, and approximately 340 feet from and 40 feet lower from the new dual reservoirs site. Given the distance of the sensitive receptors from the existing Dos Osos Reservoir and new dual Dos Osos Reservoir sites, the exposure of sensitive receptors to substantial pollutant concentrations will be minimal. In addition, because Section 1.3E, Dust Control and Monitoring Plan, Section 1.3I, Tuneup Logs, Section 3.3B, Dust Control, and Section 3.4A, Air Quality and Emissions Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and require a Dust Control and Monitoring Plan, include implementation of all BAAQMD-required BMPs for dust control, require regular maintenance of construction vehicles and equipment, and include provisions for BMPs for air emissions control, the Project impacts related to exposure of sensitive receptors to substantial pollutant concentrations will be less than significant.

3.4.3.4. Impact Air Quality e): Potential to create objectionable odors affecting a substantial number of people.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section III.e, Air Quality).

Facts in Support of Findings

Short-term construction activities requiring construction equipment and maintenance trucks that emit diesel- and/or gasoline-powered engine exhaust odors may be a potential source of objectionable odors. At the existing Dos Osos Pumping Plant, the

short-term generation of objectionable odors will be less than significant, because the pumping plant rehabilitation consists of replacing electrical and mechanical equipment inside the existing pumping plant building and the temporary use of an electric portable pump. For the new and existing reservoir sites, though the distances of the sites from the nearest sensitive receptors and the low densities of residential housing in the surrounding neighborhood will minimize the generation of objectionable odors to a substantial number of people, there is still the potential for residents to be subjected to objectionable odors. However, because Section 1.3I, Tuneup Logs, and Section 3.4A, Air Quality and Emissions Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and require regular maintenance of construction vehicles and equipment, and include provisions for BMPs for air emissions control, the Project impact related to creation of objectionable odors affecting a substantial number of people will be less than significant.

For the long-term, the rehabilitated pump units will operate within the enclosed Dos Osos Pumping Plant as the existing pump units did under preconstruction conditions. The new dual reservoirs' operation (consisting mainly of water levels changing within the reservoirs) will not generate objectionable odors, and all long-term reservoir operations will be powered by electricity. As such, the rehabilitated pumping plant and new dual reservoirs operations will not generate long-term objectionable odors affecting a substantial number of people.

3.4.4. Biological Resources

3.4.4.1. Impact Biological Resources b): Potential to have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Dept. of Fish & Game or U.S. Fish & Wildlife Service.

Findings

EBMUD hereby finds that there will be no impact (see Final MND Section IV.b, Biological Resources).

Facts in Support of Findings

No waters or riparian habitats occur on or directly adjacent to the proposed Project sites. Therefore, the Project would not result in any impacts to any waters or riparian habitat identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

3.4.4.2. Impact Biological Resources c) Potential to have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Findings

EBMUD hereby finds that there will be no impact (see Final MND Section IV.c, Biological Resources).

Facts in Support of Findings

No federally-protected wetlands occur within the Project sites. Therefore, the Project would not result in any impacts on federally-protected wetlands as defined by Section 404 of the Federal Clean Water Act through direct removal, filling, hydrological interruption or other means.

3.4.4.3. Impact Biological Resources d): Potential to interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IV.d, Biological Resources).

Facts in Support of Findings

The existing Dos Osos Pumping Plant and existing Dos Osos Reservoir sites are not located within open space that acts as a wildlife corridor between important habitat units. Both sites are within developed, residential communities. Thus, construction activities at both sites and long-term operation of the Dos Osos Pumping Plant will not interfere substantially with the movement of wildlife species or the use of established wildlife corridors

The new dual Dos Osos Reservoirs site falls within open space that contributes to the greater Caldecott wildlife corridor. However, the new dual Dos Osos Reservoirs construction will not create a barrier to, or substantially interfere with, wildlife movements through the wildlife corridor in the Project vicinity. The small size and situation of the Project site make it unlikely to significantly impinge on animal movements. Areas with dense riparian or scrub habitat that provide cover for wildlife movement will not be significantly impacted. Coast live oak woodland canopy will be retained to the extent possible within the short section affected by the paved access road. Human traffic from construction may have a temporary impact on animals

dispersing or moving through this area, but this short-term impact would be less than significant, because wildlife movement impacts would be confined to work (daytime) hours, and the new dual Dos Osos Reservoirs site is surrounded by open space outside of the construction and staging area that would be available for wildlife movement around the construction site. After construction, the new dual Dos Osos Reservoirs would be fenced to exclude wildlife, and wildlife movement could occur around the enclosed reservoir site and over the new access road.

Because the Project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, the impact related to interference of wildlife movements in the Project vicinity is less than significant.

3.4.4.4. Impact Biological Resources e): Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IV.e, Biological Resources).

Facts in Support of Findings

The Project will not conflict with any of the applicable conservation policies or vegetation and wildlife goals Contra Costa County General Plan, any of the applicable guiding policies of the City of Orinda General Plan, or any of the applicable guiding principles of the EBMUD East Bay Watershed Master Plan.

Incorporation of several EBMUD practices and procedures into the Project and implementation of Mitigation Measures BIO-1 through BIO-5 will ensure that impacts to rare and endangered species and valuable wildlife habitats and corridors will be less than significant. Coast live oak woodland canopy will be retained to the extent possible within the short section affected by the paved access road, and the Project will plant native trees as screening around the new dual Dos Osos Reservoirs.

Incorporation of specific EBMUD practices and procedures into the Project ensures that impacts to creeks and riparian areas from pollution, erosion and siltation would be less than significant. The new dual Dos Osos Reservoirs will occupy less than a quarter of an acre on watershed lands, preserving watershed lands and open space to the extent possible while allowing for replacement of an aging water facility and improving level of service to potable water customers. Thus, any significant impacts related to potential conflicts with local policies or ordinances regarding biological resources will be less than significant.

3.4.4.5. Impact Biological Resources f): Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IV.f, Biological Resources).

Facts in Support of Findings

The new dual Dos Osos Reservoirs site is within the boundaries of the EBMUD Low Effect East Bay Habitat Conservation Plan (2008) ("watershed lands HCP"), which covers 28,000 acres of watershed lands in the San Francisco East Bay Area owned by EBMUD. The watershed lands HCP covers activities that EBMUD must undertake to meet its various obligations as a public entity to provide water service to its customers in the East Bay. EBMUD activities covered under this HCP include programs for water quality, biodiversity, forestry, livestock grazing, agricultural operations, fire and fuel management, recreation and developed trails, and the storage and removal of trench spoils.

The watershed lands HCP covers impacts to two plant and five animal species: pallid manzanita, Santa Cruz tarplant, rainbow trout, CRLF, western pond turtle, pallid bat, and the Alameda whipsnake. Habitat for the pallid manzanita, Santa Cruz tarplant and rainbow trout is not present within the new dual Dos Osos Reservoirs site. Aquatic habitat for the CRLF and western pond turtle is also not present. There is low probability for dispersal of either species through the Project site due to their distance from pond or riparian habitat and the lack of cover. As described in Table 3.1, pallid bats may be present within mature trees on the Project site; however, the watershed lands HCP's protection measures solely target the preservation of the nursery colony located in Pinole Valley. Scrub patch identified as core habitat for the Alameda whipsnake under the watershed lands HCP is located within a few hundred feet of the new dual Dos Osos Reservoirs site. The watershed lands HCP mandates that no more than one percent of core habitat may be lost over the 30-year term of the watershed lands HCP. The core scrub habitat area will not be impacted as part of the Project.

As discussed in Section 3.3.1.1 of these Findings, incorporation of several EBMUD practices and procedures into the Project and implementation of Mitigation Measures BIO-2 and BIO-5 will ensure that impacts to roosting bats and the Alameda whipsnake will be less than significant. Because the proposed Project would conform to the provisions of the existing watershed lands HCP that apply to the new dual Dos Osos Reservoirs site to the extent possible, there will be no impacts to the goals or objectives of the watershed lands HCP.

3.4.5. Cultural Resources

3.4.5.1. Impact Cultural Resources a:) Potential to cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Findings

EBMUD hereby finds that there will be no impact (see Final MND Section V.a, Cultural Resources).

Facts in Support of Findings

None of the Project sites are listed on the Federal Register of Historic Places or the California Register of Historical Resources. Therefore, no impacts that would cause a substantial adverse change in the significance of a historical resource will occur.

3.4.5.2. Impact Cultural Resources b) and d): Potential to cause a substantial adverse change in the significance of a unique archaeological resource as defined in Section 15064.5, or potential to disturb any human remains, including those interred outside of formal cemeteries.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section V.b and d., Cultural Resources).

Facts in Support of Findings

All Project work at the existing Dos Osos Pumping Plant and Dos Osos Reservoir sites will occur in areas that have been previously disturbed. No archaeological resources or human remains have been encountered previously at either of these two sites.

EBMUD maintains an Archaeological Resources Geographic Information System (GIS) database that is updated annually with the results of a records search of the Northwest Information Center (NWIC) of the California Historical Resources Information System. A GIS survey of the existing Dos Osos Pumping Plant site, existing Dos Osos Reservoir site, and the new dual Dos Osos Reservoirs site found no recorded occurrences of archaeological resources within the immediate vicinity (half mile) of any of the Project sites.

However, the potential for inadvertent discovery of cultural resources or human remains is a potential impact. Because Section 3.9, Protection of Cultural and Paleontological Resources, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project, and it

requires implementation of procedures that address the inadvertent discovery of cultural resources or human remains and follows statutory law, the Project's impact related to cultural resources and disturbance of human remains is less than significant.

3.4.5.3. Impact Cultural Resources c): Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section V.c, Cultural Resources).

Facts in Support of Findings

All Project work at the existing Dos Osos Pumping Plant and Dos Osos Reservoir sites will occur in areas that have been previously disturbed. No paleontological resources or unique geologic features have been encountered previously at either of these two sites.

However, the potential for inadvertent discovery of paleontological resources or a unique geologic feature is a potential impact. Because Section 3.9, Protection of Cultural and Paleontological Resources, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project, and it requires implementation of procedures that address the inadvertent discovery of paleontological resources and unique geologic features, the Project's impact related to paleontological resources and unique geologic features is less than significant.

3.4.6. Geology and Soils

3.4.6.1. Impact Geology and Soils a) i) and ii): Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42 or ii) Strong seismic ground shaking.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section VI.a, Geology and Soils).

Facts in Support of Findings

None of the Project sites are within mapped fault zones. The new dual Dos Osos Reservoirs and associated access road and inlet-outlet pipeline will be designed to meet the latest uniform building code requirements to resist strong ground motions. EBMUD Engineering Standard Practice 512.1, Water Main and Services Design Criteria, and Engineering Standard Practice 550.1, Seismic Design Requirements, dictate basic requirements for water pipelines and design standards for pipelines to withstand seismic hazards. The closest fault zone, the Hayward Fault Zone, is approximately 10,000 feet from the Project sites. Because none of the Project sites are within mapped fault zones and the Project will be built in compliance with EBMUD engineering and design standard practices aimed at minimizing risks associated with seismic events, the potential for exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault or strong seismic ground shaking, is less than significant.

3.4.6.2. Impact Geology and Soils b): Potential to result in substantial soil erosion or the loss of topsoil.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section VI.b, Geology and Soils).

Facts in Support of Findings

Construction work will incorporate erosion control measures in accordance with applicable EBMUD practices and procedures. Because Section 1.1B, Site Activities, and Section 1.3A, Storm Water Management, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and include erosion control measures that would reduce the potential for short-term soil erosion and loss of topsoil by including provisions for the control of runoff, including diversion and drainage of surface waters from construction sites, impacts related to soil erosion or loss of topsoil would be less than significant.

3.4.6.3. Impact Geology and Soils d:) Potential to be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code 1994, creating substantial risks to life or property.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VI.d, Geology and Soils).

Facts in Support of Findings

None of the Project sites are located on expansive soil. Therefore, no impacts from being located one expansive soil, creating substantial risks to life or property, will occur.

3.4.6.4. Impact Geology and Soils e): Potential to have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VI.e, Geology and Soils).

Facts in Support of Findings

Septic tanks or alternative wastewater disposal systems are not part of the Project. Therefore, no impacts from having soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems will occur.

3.4.7. Greenhouse Gas (GHG) Emissions

3.4.7.1. Impact GHG Emissions a): Potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section VII.a, GHG Emissions).

Facts in Support of Findings

In June 2010, BAAQMD adopted thresholds of significance, to assist in the review of projects subject to the California Environmental Quality Act (CEQA), that were designed to establish the level at which BAAQMD air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were posted on BAAQMD's website and included in the 2011 CEQA Air Quality Guidelines (updated May 2011). EBMUD considers the 2011 BAAQMD significance thresholds adequate to provide a conservative evaluation of a project's potential air quality impacts. The thresholds of significance for long-term, operational-related GHG emissions for land use development projects is 1,100 metric tons per year (MT/yr) of carbon dioxide equivalent (CO_2e). Long-term operation of the rehabilitated Dos Osos Pumping Plant and the new dual Dos Osos Reservoirs will not emit exhaust or fumes during future operations.

BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, BAAQMD encourages lead agencies to incorporate BMPs to reduce GHG emissions during construction, as feasible and applicable. The BMPs recommended by BAAQMD include using alternative-fueled construction equipment, using local building materials, and recycling or reusing a portion of construction waste or demolition materials. In addition to other requirements that reduce GHG emissions, Standard Construction Specification 01 35 44, Environmental Requirements. Section 3.4A, Air Quality and Emissions Control, of Standard Construction Specification 01 35 44 requires construction crews to use alternative-fueled construction equipment and to recycle or reuse construction waste or demolition materials to the extent feasible.

Because Section 3.4A, Air Quality and Emissions Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project and includes specified air emission control BMPs to minimize short-term construction diesel exhaust emissions, and includes GHG emission controls which would reduce GHG emissions from fuel combustion, construction impacts related to GHG emissions would be less than significant.

3.4.7.2. Impact GHG Emissions b): Potential to conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VII.b, GHG Emissions).

Facts in Support of Findings

The Project would not conflict with the BAAQMD 2010 Climate Action Plan. General estimated basin-wide, construction-related emissions are included in BAAQMD emission inventory and is not expected to prevent attainment or maintenance of the ozone, particulate matter, and carbon monoxide levels within the Bay Area. Thus, the Project would have no impact and would not conflict with or obstruct implementation of the BAAQMD 2010 CAP.

The Project also would not conflict with the Contra Costa County Climate Action Plan, which includes practices and procedures outside the purview of the proposed Project due to its focus on global GHG reduction strategies such as promoting County-wide goals of energy efficiency, renewable energy, reducing transportation emissions, and reducing solid waste.

The Project also does not conflict with EBMUD's Climate Change Monitoring and Response Plan and Action Plan. The Action Plan requires certain practices and

procedures to help EBMUD achieve the GHG reduction goal. These practices and procedures identified in the Action Plan are outside the purview of the proposed Project, because they provide guidance on EBMUD long-term decisions regarding water supply, water quality, and infrastructure planning.

3.4.8. Hazards and Hazardous Materials

3.4.8.1. Impact Hazards and Hazardous Materials a) and b): Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section VIII.a and b, Hazards and Hazardous Materials).

Facts in Support of Findings

Superchlorinated Water

The new 800-foot, 12-inch steel inlet-outlet pipeline connecting the new dual Dos Osos Reservoirs to the existing water distribution system will undergo chlorine disinfection with superchlorinated water. In accordance with Section 3.0 of the EBMUD's Environmental Compliance Manual, the superchlorinated water produced during testing and disinfection activities at the new dual Dos Osos Reservoirs site would be pumped into a tanker truck, dechlorinated, transported off site, and discharged to EBMUD's Main Wastewater Treatment Plant. The planned and unplanned discharge and release of superchlorinated water after testing and disinfection of the pipeline could potentially violate water quality standards or waste discharge requirements.

Because Section 3.0, Water Quality Protection, of EBMUD's Environmental Compliance Manual, and Section 1.3D, Spill Prevention and Response Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and these practices require controls regarding the discharge of superchlorinated water, controls to prevent the discharge of contaminated storm water runoff from the Project site, and controls to prevent the accidental release of hazardous materials during Project construction, impacts related to the release of superchlorinated water would be less than significant.

Lead

At the existing Dos Osos Pumping Plant site, because only electrical and mechanical equipment upgrades will occur within the existing pumping plant structure, potential

impacts from human encounters with lead will not be significant. At the new dual Dos Osos Reservoirs site, because the site is currently undeveloped grasslands, and no occurrences of hazardous materials have been recorded at the site, potential impacts from human encounters with lead will not be significant.

Prior testing of the existing Dos Osos reservoir indicated the presence of high concentrations of lead in light brown sand surrounding the reservoir. Remediation activities removed lead-contaminated soil from the affected areas. Based on the analytical results of verification samples taken after remediation, concentrations of lead at the site were found to be below the established risk-based goal for Dos Osos Reservoir (250 milligram/kilogram), which is more stringent than the 2001 Environmental Protection Agency's Lead Rule limits for the presence of lead in children's play areas. Despite the successful remediation, the existing Dos Osos Reservoir site may have been impacted by aerially deposited lead during the last 20 years since the assessment, thereby potentially leading to the accidental release of lead-contaminated soil during demolition.

Because Section 9.0, Trench Spoils Field Management Practices, of EBMUD's Environmental Compliance Manual, EBMUD's Procedure 711, Hazardous Waste Removal, and EBMUD's Standard Construction Specification 02 83 13, Lead Hazard Control Activities, 01 35 44, Environmental Requirements, and 01 35 24, Project Safety Requirements, have been incorporate into the Project, and these practices require controls regarding the provision of site investigations for potentially hazardous materials, analysis and sampling of hazardous materials, characterization of hazardous materials, handling, containment, and disposal of lead during demolition activities, and incorporate established health and safety procedures regarding anticipated hazards, impacts related to the release of lead to the environment are less than significant.

Asbestos

At the existing Dos Osos Reservoir, roofing materials installed in the late 1950s may contain asbestos. At the existing Dos Osos Pumping Plant, rehabilitation of the pump units within the existing pumping plant building may require the removal and replacement of electrical controls and mechanical equipment. Due to the age of the existing facility, asbestos may be released and encountered during rehabilitation of pumping plant components which could potentially violate water quality standards or waste discharge requirements.

Because Section 9.0, Trench Spoils Field Management Practices, of EBMUD's Environmental Compliance Manual, EBMUD's Procedure 711, Hazardous Waste Removal, and EBMUD's Standard Construction Specifications 02 82 13, Asbestos Control Activities, 01 35 44, Environmental Requirements, and 01 35 24, Project Safety Requirements, have been incorporated into the Project, and these practices achieve controls regarding the provision of site investigations for potentially hazardous materials, analysis and sampling of hazardous materials, characterization

of hazardous materials, handling, containment, and disposal of asbestos-containing materials during demolition activities, and incorporate established health and safety procedures regarding anticipated hazards, impacts related to the release of asbestos are less than significant.

3.4.8.2. Impact Hazards and Hazardous Materials c): Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VIII.c, Hazards and Hazardous Materials).

Facts in Support of Findings

There are no existing or proposed schools within a quarter-mile of the Project sites. Therefore, no impacts from emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school will occur.

3.4.8.3. Impact Hazards and Hazardous Materials d): Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and as a result, would it create a significant hazard to the public or the environment.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VIII.d, Hazards and Hazardous Materials).

Facts in Support of Findings

The Project sites were checked against regulatory agency databases, such as Cal/EPA Department of Toxic Substances Control online the Envirostor Database which is compiled pursuant to Government Code Section 65962.5, for known hazardous material sites. None of the Project sites are listed on a hazardous materials site list. Therefore, no impacts from being located on a site which is included on a list of hazardous materials sites will occur.

3.4.8.4. Impact Hazards and Hazardous Materials e): Potential for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VIII.e, Hazards and Hazardous Materials).

Facts in Support of Findings

The Project sites are not located within an airport land use plan or within two miles of a public airport, public-use airport or private airstrip.

3.4.8.5. Impact Hazards and Hazardous Materials f): Potential for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VIII.f, Hazards and Hazardous Materials).

Facts in Support of Findings

The Project sites are not located within the vicinity of a private airstrip.

3.4.8.6. Impact Hazards and Hazardous Materials g): Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section VIII.g, Hazards and Hazardous Materials).

Facts in Support of Findings

The Project would not affect the implementation of any emergency response or evacuation plan, because contract specifications will require the Contractor to maintain emergency roadway access at all times. Therefore, no impacts from interference with an adopted emergency response plan or emergency evacuation plan will occur.

3.4.8.7. Impact Hazards and Hazardous Materials h): Potential to expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section VIII.h, Hazards and Hazardous Materials).

Facts in Support of Findings

All Project sites are located within the California Department of Forestry and Fire Protection's Very High Fire Hazard Severity Zones. Wildland fire is a potential risk at the existing Dos Osos Reservoir and new dual Dos Osos Reservoirs sites due to the location of these sites where wildlands are adjacent to urbanized areas and where residences are intermixed with wildlands. The use of construction equipment and temporary storage of flammable materials could pose a wildland fire risk in the Project area.

All Project sites are located within the Moraga-Orinda Fire District (MOFD) boundaries and would be served by MOFD forces in the event of a fire emergency. There are two fire stations within approximately two miles of the Project sites, and EBMUD emergency hydrants are located at both the existing Dos Osos Pumping Plant and Dos Osos Reservoir sites. The emergency white hydrant at the existing Dos Osos Reservoir site is approximately 300 feet away from the new dual Dos Osos Reservoirs site. These hydrants will provide emergency water supply in the event of a fire at any of the Project sites. The existing Dos Osos Reservoir has a storage capacity of 0.24 MG and will serve as on-site water source available for fire protection at the existing and new dual Dos Osos Reservoirs sites.

In addition, because Section 1.6, Fire Prevention and Protection, of EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements, has been incorporated into the Project and mandates that the site will be supplied and maintained with adequate firefighting equipment capable of extinguishing incipient fires and complies with applicable fire code regulations that include provisions for wildfire protection building construction, hazardous vegetation and fuel management, defensible space, fire reporting, access for firefighting, and portable fire extinguishers, impacts related to hazards resulting from wildland fires would be less than significant.

3.4.9. Hydrology and Water Quality

3.4.9.1. Impact Hydrology and Water Quality a): Potential to violate any water quality standards or waste discharge requirements.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IX.a, Hydrology and Water Quality).

Facts in Support of Findings

The two types of potential discharges associated with construction of the Project that could potentially violate water quality standards or waste discharge requirements are: release of potable water discharges (treated water) and stormwater discharges. The release of potable water discharges may impact water quality through the introduction of chlorinated drinking water to existing drainages. The release of stormwater discharges may impact water quality through stormwater runoff encounters with pollutants and contaminants that eventually are released to existing drainages. Both potable water and stormwater discharges have the potential to cause erosion and flooding along drainage pathways and at drainage outfalls.

Potable Water Discharges

Because Section 3.0, Water Quality Protection, of EBMUD's Environmental Compliance Manual, and Section 1.3B, Water Control and Disposal Plan, and Section 1.3D, Spill Prevention and Response Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and the practices require controls regarding the discharge, treatment and disposal of liquid discharges and prevent the accidental release of hazardous materials during Project construction, impacts related to potential violation of water quality standards or waste discharge requirements resulting from potable water discharges will be less than significant.

Stormwater Discharges

Because Section 1.3A, Storm Water Management, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project, which requires controls such as dechlorination tablets, rock filter bags and drain inlet protection, to prevent the discharge of contaminated storm water runoff from the Project site, the Project impact related to the release of contaminated stormwater runoff, a potential violation of water quality standards or waste discharge requirements, will be less than significant.

3.4.9.2. ***Impact Hydrology and Water Quality b): Potential to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).***

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section IX.b, Hydrology and Water Quality).

Facts in Support of Findings

Construction of the new dual Dos Osos Reservoirs would not substantially deplete groundwater supplies or recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. All stormwater runoff from proposed impervious surfaces will be available for groundwater recharge, and any surface runoff will be managed to maintain the status quo commensurate with infiltration (from precipitation), groundwater, and recharge. Therefore, no impacts to groundwater supplies or groundwater recharge will occur.

The rehabilitation of the existing Dos Osos Pumping Plant would result in no net change of impervious surface area. Also, the demolition of the existing Dos Osos Reservoir will decrease the total impervious area at the existing reservoir site by removing the reservoir structure and roof. Thus, no substantive change in infiltration rates or groundwater recharge would occur during operation of the rehabilitated Dos Osos Pumping Plant or at the site of the existing Dos Osos Reservoir post-demolition.

3.4.9.3. ***Impact Hydrology and Water Quality c) and d): Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site; or substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site.***

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IX.c and d, Hydrology and Water Quality).

Facts in Support of Findings

No wetlands, waters or riparian areas under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board (RWQCB), or CDFW occur within the Project sites. The nearest drainage to the existing Dos Osos Reservoir and new dual Dos Osos Reservoirs sites is an ephemeral unnamed drainage in the headwaters of the San Pablo Creek watershed. This tributary drainage, located approximately 200 feet to the southeast of the existing Dos Osos Reservoir and approximately 500 feet northeast of the new dual Dos Osos Reservoirs site, connects to an underground segment of San Pablo Creek about a mile downstream.

Long-Term Drainage Patterns

At the existing Dos Osos Pumping Plant, the rehabilitation of the pumping plant will not alter the existing drainage pattern of the site; therefore, there will be no significant impacts.

At the existing Dos Osos Reservoir site, the demolition of the existing reservoir will remove the impervious reservoir and roof from the site and allow infiltration of stormwater into the footprint area of the removed reservoir. Over the remaining impervious portions of the existing reservoir site, no alteration in drainage pattern would occur, and stormwater runoff would continue to be diverted to existing storm drains and outfalls along Los Norrabos; therefore, there will be no significant impacts.

At the new dual Dos Osos Reservoirs site, the new dual reservoirs and associated pad would create a new impervious area totaling less than 10,000 square feet. Stormwater runoff from the new dual reservoirs site would be discharged via controlled dispersal directly to adjacent vegetated hillslopes and/or an energy dissipater outfall structure on watershed lands. All stormwater runoff from the impervious surfaces would be allowed to infiltrate over native soils. Thus, all stormwater runoff from proposed impervious surfaces will be available for groundwater recharge, and any surface runoff will be managed to maintain the status quo commensurate with infiltration (from precipitation), groundwater, and recharge. Stormwater runoff from the Project site before and after Project construction will contribute runoff and groundwater recharge amounts to the same watershed basin. Natural drainage from the surrounding slopes will divert stormwater runoff ultimately to the same existing drainage pathways that conveyed stormwater runoff before dual reservoirs construction; therefore, there will be no significant impacts.

Short-Term Construction Drainage Patterns

During construction, short-term alterations in drainage patterns, at both the existing Dos Osos Reservoir and new dual Dos Osos Reservoirs, sites may occur.

Because Section 1.3A, Storm Water Management, and Section 1.3B, Water Control and Disposal Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project, and the required Stormwater Pollution Prevention Plan (SWPPP) and Water Control and Disposal Plans require controls regarding liquid discharges and storm water runoff from the Project site, short-term Project impacts related to alteration of the existing drainage pattern of the site area during construction, in a manner which would result in substantial erosion or siltation on or off site will be less than significant.

3.4.9.4. Impact Hydrology and Water Quality e) and f): Potential to create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IX.e and f, Hydrology and Water Quality).

Facts in Support of Findings

Long-Term Runoff Impacts

At the existing Dos Osos Pumping Plant site, rehabilitation of existing pump units within the pumping plant building will not result in any changes outside the building; therefore, there would be no significant impacts.

At the existing Dos Osos Reservoir site, the demolition of the existing reservoir will remove the impervious reservoir and roof from the site and allow infiltration of stormwater into the footprint area of the removed reservoir; therefore, infiltration would increase, and surface runoff contributions may decrease, such that there would be no significant impacts.

At the new dual Dos Osos Reservoirs site, the new dual reservoirs and associated pad would create a new impervious area totaling less than 10,000 square feet. Stormwater runoff from the new dual reservoirs site would be discharged via controlled dispersal directly to adjacent vegetated hillslopes and/or an energy dissipater outfall structure on watershed lands. All stormwater runoff from the impervious surfaces be allowed to infiltrate over native soils. Thus, all stormwater runoff from proposed impervious surfaces will be available for groundwater recharge, and any surface runoff will be managed to maintain the status quo commensurate with infiltration (from precipitation), groundwater, and recharge. Stormwater runoff from the Project site before and after Project construction will contribute runoff and groundwater recharge amounts to the same watershed basin. Natural drainage from the surrounding slopes will divert stormwater runoff ultimately to the same existing drainage pathways that

conveyed stormwater runoff before dual reservoirs construction; therefore, there will be no significant impacts.

Short-Term Construction Runoff Impacts

During construction at the existing Dos Osos Reservoir and new dual Dos Osos Reservoirs sites, short-term creation or contribution of runoff water could occur which would provide substantial additional sources of polluted runoff. Both sites are situated upslope from the ephemeral tributary drainage (approximately 500 feet northeast of the new dual reservoirs site, as described above), and the accidental release of hazardous materials such as oil, grease, or fuel during construction could potentially degrade surface water quality.

Because EBMUD's Environmental Compliance Manual, Section 3.0, Water Quality Protection, and Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project, and the practices achieve controls regarding the discharge, treatment and disposal of liquid discharges, prevent the discharge of contaminated stormwater runoff from the Project site, and prevent the accidental release of hazardous materials during Project construction, the Project impact related to creation or contribution of runoff water which would provide substantial additional sources of polluted runoff will be less than significant.

3.4.9.5. Impact Hydrology and Water Quality g) and h): Potential to place housing within a 100-year flood plain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, or potential to place within a 100-year flood plain structures which would impede or redirect flood flows.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section IX.g and h, Hydrology and Water Quality).

Facts in Support of Findings

The Project does not propose construction of any housing, and the Project sites are not located within a 100-year flood plain.

3.4.9.6. Impact Hydrology and Water Quality i): Potential to expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section IX.i, Hydrology and Water Quality).

Facts in Support of Findings

The Project would not expose people or structures to significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Complete and sudden failure of the new dual Dos Osos Reservoirs and associated pipelines due to an earthquake or other condition is extremely unlikely due to the application of standard EBMUD practices, procedures and current engineering standards for reservoir and pipeline construction that dictate engineering requirements for water facilities and seismic design.

A number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including EBMUD's Engineering Standard Practice 512.1, Water Main and Services Design Criteria, and Engineering Standard Practice 550.1, Seismic Design Requirements. These two Engineering Standard Practices dictate basic requirements for water pipelines and design standards for pipelines to withstand seismic hazards. Also, design of the new dual reservoirs will adhere to the EBMUD Reservoir Design Guide, which details design guidelines that apply to the design and construction of steel-bolted tanks. Section 4.2.1, Codes and Design Standards, of EBMUD's Reservoir Design Guide lists the building codes and design references to be used during construction of steel-bolted tanks to ensure compliance with current engineering practice and standards.

Because the new dual Dos Osos Reservoirs and associated pipelines will be built in compliance with EBMUD standard practices and current engineering practices and building codes, the potential for exposure of people or structures to significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of the reservoirs is less than significant.

3.4.9.7. Impact Hydrology and Water Quality j): Potential for inundation by seiche, tsunami, or mudflow.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section IX.j, Hydrology and Water Quality).

Facts in Support of Findings

The Project facilities would not be subject to inundation by seiche or tsunami, as the Project sites are located inland away from large bodies of water.

3.4.10. Land Use and Planning

3.4.10.1. Impact Land Use and Planning a): Potential to physically divide an established community.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section X.a, Land Use and Planning).

Facts in Support of Findings

The Project will not physically divide an established community, because the rehabilitation of pump units within the existing Dos Osos Pumping Plant occurs within an existing structure, and the existing Dos Osos Reservoir and new dual reservoirs sites lie at the furthest extent of the El Toyonal neighborhood and at the perimeter of EBMUD watershed lands – at the boundary between an established rural residential neighborhood and open hillslopes and grasslands. Therefore, no impacts that would physically divide an established community will occur.

3.4.10.2. Impact Land Use and Planning b): Potential to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section X.b, Land Use and Planning).

Facts in Support of Findings

The existing Dos Osos Pumping Plant and existing Dos Osos Reservoir are currently located within areas designated for residential use in the City of Orinda's General Plan. The proposed in-situ rehabilitation of the existing Dos Osos Pumping Plant will not change the current use of the pumping plant site, and demolition of the existing Dos Osos Reservoir will leave the existing reservoir site in a more natural state. As such, rehabilitation of the Dos Osos Pumping Plant and demolition of the Dos Osos Reservoir will not cause any significant impacts related to land use.

The new dual Dos Osos Reservoirs will be located on EBMUD-owned watershed lands designated as "watershed" land use in the Contra Costa County General Plan. The new dual Dos Osos Reservoirs will occupy less than a quarter of an acre on watershed lands, preserving watershed lands and open space to the extent possible while allowing for replacement of an aging water facility and improving level of

service to potable water customers. Thus, construction of the new dual reservoirs will not cause any significant impacts related to land use.

3.4.10.3. Impact Land Use and Planning c): Potential to conflict with any applicable habitat conservation plan or natural community conservation plan.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section X.c, Land Use and Planning).

Facts in Support of Findings

The Project does not conflict with any applicable habitat conservation plan or natural community conservation plan. The new dual reservoirs site is within the boundaries of the watershed lands HCP, which covers 28,000 acres of watershed lands in the San Francisco East Bay Area owned by EBMUD. The watershed lands HCP covers activities that EBMUD must undertake to meet its various obligations as a public entity to provide water service to its customers in the East Bay. EBMUD activities covered under this HCP include programs for water quality, biodiversity, forestry, livestock grazing, agricultural operations, fire and fuel management, recreation and developed trails, and the storage and removal of trench spoils.

Because the proposed Project would conform to the provisions of the existing watershed lands HCP that apply to the new dual Dos Osos Reservoirs site to the extent possible, there will be no impacts to the goals or objectives of the watershed lands HCP.

3.4.11. Mineral Resources

3.4.11.1. Impact Mineral Resources a): Potential to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XI.a, Mineral Resources).

Facts in Support of Findings

No mineral deposits of economic significance are known to exist within the Project sites.

3.4.11.2. Impact Mineral Resources b): Potential to result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XI.b, Mineral Resources).

Facts in Support of Findings

There are no locally important mineral resources delineated on a local general plan, specific plan or other land use plan; therefore, the Project will not result in the loss of availability of locally important mineral resources.

3.4.12. Noise

3.4.12.1. Impact Noise a): Potential of exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XII.a, Noise).

Facts in Support of Findings

In general, the City of Orinda noise ordinance stipulates a noise limit of 60 dBA (Ldn) during the day, and 55 dBA (Ldn) during nighttime hours. However, construction activities that occur Monday through Friday between the hours of 8 a.m. and 6 p.m. and on Saturdays between 10 a.m. and 5 p.m. are exempt from these noise restrictions. During construction, critical water service outages, other emergencies, and special situations requiring work outside of the City of Orinda ordinance construction daytime work hour limits would be rare, and though EBMUD will comply with the City of Orinda ordinance when feasible, EBMUD is not subject to the ordinance. Noise generated by construction activities for the Dos Osos Pumping Plant rehabilitation, new dual Dos Osos Reservoirs construction, and existing Dos Osos Reservoir demolition construction phases is not expected to exceed the speech interference criterion. Thus, even at times when construction may occur outside of the construction windows set forth in the City of Orinda ordinance, nearby receptors would not be expected to experience substantial noise-related impacts.

Because Section 1.4, Work Hours, and Section 1.8, Construction Noise, of EBMUD's Standard Construction Specification 01 14 00, Work Restrictions, has been incorporated into the Project, which would limit construction activities work hours,

and because construction activity noise levels would fall below the speech interference criterion (an indicator of impact on typical daytime and evening activities), impacts would be less than significant.

3.4.12.2. Impact Noise b): Potential of exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XII.b, Noise).

Facts in Support of Findings

There are no local, state, or federal vibration impact criteria that are applicable to this Project. The California Department of Transportation uses a vibration limit of 0.5 in/sec PPV for buildings designed to modern engineering standards. EBMUD has successfully applied the 0.5 in/sec PPV standard criteria established to evaluate the risk for cosmetic or structural damage to buildings with no known adverse impacts.

The new dual Dos Osos Reservoirs construction and existing Dos Osos Reservoir demolition Project phases would not result in exposure of persons to or generation of excessive ground-borne vibration levels, because each of the above construction phases are at locations far enough away from any nearby structures to not approach the 0.5 in/sec PPV criterion. None of the Project phases would experience excessive ground-borne noise levels at sensitive receptors near each Project site; therefore, impacts from exposure to or generation of excessive ground-borne vibration or ground-borne noise levels are less than significant.

Because the new dual Dos Osos Reservoirs construction and existing Dos Osos Reservoir demolition Project phases are at locations far enough away from any nearby structures such that vibration levels would not exceed the 0.5 in/sec PPV criterion, and because Sections 3.5, Vibration Control, and 3.6, Noise Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, and Section 1.4, Work Hours, and Section 1.8, Construction Noise, of EBMUD's Standard Construction Specification 01 14 00, Work Restrictions, have been incorporated into the Project, and these sections require vibration controls for construction equipment and restrict construction activity work hours, impacts from exposure to or generation of excessive ground-borne vibration or ground-borne noise levels would be less than significant.

3.4.12.3. Impact Noise c): Potential for a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XII.c, Noise).

Facts in Support of Findings

At the new dual Dos Osos Reservoirs site, there are no electrical or mechanical (pumping) facilities; therefore, typical reservoir operations would not generate noise above ambient levels. At the existing Dos Osos Pumping Plant, existing electrical and mechanical equipment within the existing pumping plant building would be upgraded with new electrical and mechanical equipment, and the upgraded equipment would not increase noise levels above existing pumping plant noise levels; noise levels would likely decrease due to advances in electrical and mechanical design since 1968, when the original pumping plant was constructed. The existing Dos Osos Reservoir will be demolished and removed, so no future long-term operations will occur at the existing reservoir site. There is no impact, because the long-term operation of proposed facilities will not change from the current operation and will not produce a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

3.4.12.4. Impact Noise d): Potential for a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XII.d, Noise).

Facts in Support of Findings

Construction activities associated with the Project would result in temporary noise increases at sensitive receptors near the three Project sites. At the new dual Dos Osos Reservoirs site, the nearest sensitive receptor is the residence at 9 Los Norrabos, approximately 340 feet from the site and approximately 40 feet lower in elevation than the bottom elevation of the new dual Dos Osos Reservoirs. At the existing Dos Osos Reservoir site, the nearest sensitive receptor is the residence at 9 Los Norrabos, approximately 160 feet from the existing Dos Osos Reservoir and approximately 30 feet higher in elevation. At the existing Dos Osos Pumping Plant, the nearest sensitive receptor is a residence at 263 El Toyonal approximately 100 feet from the pumping plant at approximately the same elevation as the pumping plant. The construction

noise analysis completed for the Project concluded that noise generated by construction would not exceed the 70 dBA speech interference criterion at any of those receptors.

There are also several factors which EBMUD did not consider quantitatively, but which would likely reduce noise levels associated with the Project below the levels predicted in the Noise and Vibration Analysis. The noise level estimates at nearby sensitive receptors do not account for noise attenuation from existing vegetation, topography or other physical barriers between a site and receptors. Thus, projected noise levels reported in the MND may be conservatively high.

Because Section 3.6, Noise Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, has been incorporated into the Project and includes measures for noise control of construction equipment such as mufflers and intake silencers, and given the distance of the sensitive receptors from the construction sites, short-term construction noise levels at nearby sensitive receptors would fall below the speech criterion, and impacts due to short-term construction activities would be less than significant.

*3.4.12.5. **Impact Noise e): Potential for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.***

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XII.e, Noise).

Facts in Support of Findings

The Project is not located within an airport land use plan area or within two miles of a public airport or public-use airport.

*3.4.12.6. **Impact Noise f): Potential for a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.***

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XII.f, Noise).

Facts in Support of Findings

The Project is not located in the vicinity of a private airstrip.

3.4.13. Population and Housing

3.4.13.1. Impact Population and Housing a): Potential to induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XIII.a, Population and Housing).

Facts in Support of Findings

The Project will not induce population growth by making additional water supply available for new development. The Project rehabilitates and replaces existing facilities to improve water quality, operational flexibility, and the reliability of the existing water distribution system for existing customers. The new dual reservoirs together have the same water storage capacity as the existing Dos Osos Reservoir. The proposed total Dos Osos dual reservoirs' storage of 0.24 MG (same as existing reservoir capacity) is required to meet peak potable water demands and maintain fire flow storage for the pressure zone. The existing customers are all within EBMUD's Ultimate Service Boundary, which is a defined service and growth boundary adopted by EBMUD. Therefore, the Project is not extending growth into a new area or creating momentum for new development within the existing area.

3.4.13.2. Impact Population and Housing b): Potential to displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XIII.b, Population and Housing).

Facts in Support of Findings

No housing presently exists at the Project site where the new dual reservoirs and associated access road and inlet-outlet pipeline will be constructed; therefore, the proposed Project would not displace housing.

3.4.13.3. Impact Population and Housing c): Potential to displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XIII.c, Population and Housing).

Facts in Support of Findings

The Project would not displace people or housing from the site and no relocation would be required.

3.4.14. Public Services

3.4.14.1. Impact Public Services a): Potential for the project to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, and other public facilities.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XIV.a, Public Services).

Facts in Support of Findings

The Project rehabilitates an existing pumping plant, constructs new dual reservoirs, and demolishes an existing reservoir. The Project would not generate a need for any new public facilities (schools, police protection, parks, etc.), because it does not induce population and employment growth. Any deterioration of existing public facilities resulting from construction (e.g., streets) would be restored by EBMUD to preconstruction condition upon completion of construction. Therefore, the Project does not include provision of new governmental facilities, and no impacts which would require additional fire protection, police protection, schools, parks, or other facilities will occur.

3.4.15. Recreation

3.4.15.1. Impact Recreation a): Potential for the project to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XV.a, Recreation).

Facts in Support of Findings

The Project will not generate or attract additional people to the area, as would be associated with residential, commercial or industrial uses; therefore, it would not affect demand for recreational facilities. The Project will not significantly increase the use of the Siesta Valley Recreation Area. Therefore, no impacts that would increase the use of and cause deterioration of existing recreational facilities will occur.

3.4.15.2. Impact Recreation b): Potential for the project to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XV.b, Recreation).

Facts in Support of Findings

The Project consists exclusively of water distribution system facilities and does not require the construction or expansion of recreational facilities.

3.4.16. Transportation/Traffic

3.4.16.1. Impact Transportation/Traffic a) and b): Potential to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit, or potential to conflict with an applicable congestion management program, including but not limited to level of service demands and travel demand measures, or other

standards established by the county congestion management agency for designated roads and or highways.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVI.a and b, Transportation/Traffic).

Facts in Support of Findings

The Project would generate short-term increases in vehicle trips by construction workers and construction vehicles on area roadways. The trip generation analysis performed for the Project estimates a maximum of eight haul/material trucks per hour during construction; a maximum of ten worker vehicles per hour is estimated by assuming all workers are arriving and leaving the job site in a one-hour period during peak commute hours. Comparison of these trip generation estimates to existing traffic analysis for intersections likely to be affected by the Project shows that the effects of these additional trips are likely to be minor. Construction-generated traffic would be temporary and, therefore, would not result in long-term degradation in operating conditions or level of service on Project area roadways.

Because EBMUD's Standard Construction Specifications 01 14 00, Work Restrictions, and 01 55 26, Traffic Regulation, have been incorporated into the Project and include provisions for limiting haul and material trucks during construction to time periods outside of peak commute hours, and require implementation of a Traffic Control Plan that minimizes impacts to traffic circulation, potential impacts from a conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system from the Project alone will be less than significant.

3.4.16.1. Impact Transportation/Traffic c): Potential to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XVI.c, Transportation/Traffic).

Facts in Support of Findings

The Project would not affect air traffic, and no impacts related to air traffic or safety will occur.

3.4.16.2. Impact Transportation/Traffic d): Potential to substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVI.d, Transportation/Traffic).

Facts in Support of Findings

The Project would not result in permanent changes to existing traffic design features or incompatible uses.

Because Section 1.2, Site Survey Audio-Video Recording Requirements, of EBMUD's Standard Construction Specification 00 31 21.13, Site Survey Information, has been incorporated into the Project, and requires the Contractor to provide documentation of both pre- and post-construction pavement conditions in the Project vicinity, and includes provisions for returning all post-construction roadway conditions to preconstruction conditions, the Project would not result in permanent changes to existing traffic design features, and potential impacts that would substantially increase hazards to a design feature or incompatible uses would be less than significant.

3.4.16.3. Impact Transportation/Traffic e): Potential to result in inadequate emergency access.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVI.e, Transportation/Traffic).

Facts in Support of Findings

The Project would not impact emergency access, because contract specifications will require the Contractor to maintain emergency roadway access at all times.

Because Section 1.2, Submittals, and Section 3.1, General (Execution), of EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation, has been incorporated into the Project and requires maintenance of emergency roadway access at all times, Project impacts related to emergency access will be less than significant.

3.4.16.4. Impact Transportation/Traffic f): Potential to conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XVI.f, Transportation/Traffic).

Facts in Support of Findings

Post-construction and during normal long-term operations of the Dos Osos Pumping Plant and the new dual Dos Osos Reservoirs, the Project would generate less than one vehicle trip per day. Therefore, the Project would not affect policies supporting alternative transportation.

3.4.17. Utilities and Service Systems

3.4.17.1. Impact Utilities and Service Systems a) and b): Potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or potential to require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XVII.a and b, Utilities and Service Systems).

Facts in Support of Findings

The Project will not generate long-term wastewater that will require treatment. Long-term operation of the pumping plant and reservoir operations will not exceed wastewater treatment requirements of the applicable regional water quality control board. In addition, the Project does not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

3.4.17.2. Impact Utilities and Service Systems c): Potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVII.c, Utilities and Service Systems).

Facts in Support of Findings

The rehabilitation of the Dos Osos Pumping Plant would not require the construction of any new storm water drainage facilities or the expansion of existing facilities. The demolition of the existing Dos Osos Reservoir would not require the construction of any new storm water drainage facilities or the expansion of existing facilities.

At the new dual Dos Osos Reservoirs site, stormwater runoff would be discharged via controlled dispersal directly to adjacent vegetated hillslopes and/or an energy dissipater outfall structure on watershed lands. Environmental impacts from construction of new stormwater drainage facilities at the new dual Dos Osos Reservoirs site will be less than significant, because stormwater runoff from the new drainage facilities will continue to be conveyed along preconstruction drainage patterns and allowed to infiltrate over native soils, and because any potential impacts of the new stormwater drainage facilities on environmental resource areas are analyzed as part of the Project throughout the MND, which concludes that all potentially significant Project impacts will be mitigated to less than significant levels.

3.4.17.1. Impact Utilities and Service Systems d): Potential to have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XVII.d, Utilities and Service Systems).

Facts in Support of Findings

The Project would not result in the need for new additional water supply. The capacity of the rehabilitated Dos Osos Pumping Plant and total storage of the new dual Dos Osos Reservoirs will not change from existing conditions. Therefore, no impacts to existing water supply will occur.

3.4.17.2. Impact Utilities and Service Systems e): Potential to result in a determination by the wastewater treatment provider which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Findings

EBMUD hereby finds that there would be no impact (see Final MND Section XVII.e, Utilities and Service Systems).

Facts in Support of Findings

The Project will not generate long-term wastewater outputs, as the Project rehabilitates and replaces facilities within a closed, potable water distribution system.

3.4.17.3. Impact Utilities and Service Systems f): Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVII.f, Utilities and Service Systems).

Facts in Support of Findings

The Project will require the excavation of in-place soils. Soils and any solid waste encountered in the excavations will be disposed of at an appropriate landfill identified by the Contractor as required in EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, regarding material off-haul and disposal.

Because Section 1.3C, Construction and Demolition Waste Disposal Plan, of EBMUD's Environmental Compliance Manual and Standard Construction Specification 01 35 44, Environmental Requirements, have been incorporated into the Project and include provisions for identifying disposal methods for soil and the approved disposal site, Project impacts from potential insufficient landfill capacity for the Project will be less than significant.

The Project will not generate long-term solid waste outputs, as the Project upgrades and replaces facilities within a closed, potable water distribution system.

3.4.17.4. Impact Utilities and Service Systems g): Comply with federal, state, and local statutes and regulations related to solid waste.

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVII.g, Utilities and Service Systems).

Facts in Support of Findings

Because the Project will comply with applicable statutes and regulations related to solid waste, Project impacts will be less than significant.

3.4.18. Mandatory Findings of Significance

3.4.18.1. Impact Mandatory Findings of Significance b): Potential for the project to have impacts that are individually limited, but cumulatively considerable. ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

Findings

EBMUD hereby finds that impacts would be less than significant (see Final MND Section XVIII.b, Mandatory Findings of Significance).

Facts in Support of Findings

For any Project impacts to cause cumulatively considerable impacts in connection with any past, present, or any reasonably foreseeable projects, these projects would have to have individual impacts in the same resource areas at the same time and in the same localized area as the proposed Project.

There is a potential for Project construction to overlap with completed buildout of the City of Orinda's Housing Element, which assumed a maximum of 108 multi-family residential units to be built by 2023. However, because the Project construction haul and material truck traffic will be prohibited from roadways during peak commute hours, the Project proposes a maximum of ten worker vehicles per hour during peak commute hours, and the Project's traffic impacts would be reduced with implementation of EBMUD standard practices and procedures, the additive effect of the Project's construction traffic truck and vehicle trips in addition to proposed Housing Element peak commute hour traffic would not be cumulatively considerable. There are no other known City of Orinda major development Projects planned for the near future that would occur in the same localized area as the proposed Project.

One future EBMUD project in the El Toyonal neighborhood that has the potential for cumulatively significant impacts is the Westside Pumping Plant Relocation Project. The Westside Project is scheduled to begin construction in 2020 and be completed by 2022; the proposed Project is scheduled to begin construction in 2023 and be completed by 2024. There will be no overlapping of construction timeframes for the two Projects, and EBMUD does not have any other projects near the Project sites that would be implemented at the same time as the proposed Project.

Because there are no other projects occurring within the vicinity or at the same time as the proposed Project, and because the Project's individual impacts would be reduced with implementation of mitigation measures, the Project's contribution to cumulative impacts would not be cumulatively considerable.

4. Related to Potential Growth Inducing Impacts

The Board hereby finds and determines that the Project is designed to rehabilitate and replace critical, aging water distribution facilities with new facilities of identical capacity, improve the level of service in the pressure zone by minimizing existing low pressure areas, and increase operational flexibility to maximize EBMUD's ability to respond to seasonal changes in demand and maintain service during required maintenance or repair work. Because the Project maintains the Dos Osos Reservoir's existing capacity, which is already required to respond to periods of peak demand in the pressure zone, and would address existing service deficiencies resulting from the presence of low pressure areas within the pressure zone, the Project would not induce or otherwise serve as an impetus for growth in the area served by the reservoir.

5. Findings Related to MND Recirculation and EIR Preparation

CEQA Guidelines section 15073.5 requires an MND to be recirculated if substantial revisions are made to the document after the public is notified of the document's availability, but prior to its adoption. Pursuant to section 15073.5(b), revisions to an MND are only considered to be "substantial revisions" if they identify a new, avoidable significant effect which can only be addressed by the addition of new mitigation measures or project revisions, or if they reflect a determination by the lead agency that the mitigation measures and project revisions proposed in the MND will not reduce the project's potential effects to less than significant levels, such that new mitigation measures or project revisions are necessary. The Board finds that the revisions to the MND made following circulation of the Draft MND for public review, and as reflected in the Final MND, do not constitute "substantial revisions," and therefore MND recirculation is not required. The MND revisions contained in the Final MND do not identify the need for new project revisions or mitigation measures, and the Final MND demonstrates that all Project impacts will be mitigated to less-than-significant levels. As demonstrated by the responses to comments included in the Final MND, revisions made since publication of the draft MND merely reflect the addition of new information designed to clarify, amplify, and/or make insignificant modifications to the MND. As such, the Board finds that MND recirculation is not necessary.

Consistent with section 15073.5(d) and as reflected by the Final MND, the Board further finds that based upon the whole record, there is no evidence that the project may cause significant environmental impacts that cannot be mitigated or avoided. As such, EBMUD is not required to prepare an EIR for the Project.

6. Findings Related to Project Approval

Based upon the whole record, the Board hereby finds and declares that the Project is approved.

EXHIBIT B

MITIGATION MONITORING AND REPORTING PLAN

CEQA REQUIREMENTS

CEQA requires the adoption of feasible mitigation measures to reduce the severity and magnitude of potentially significant environmental impacts associated with project development.

CEQA Guidelines Section 15074(d) states:

> When adopting a mitigated negative declaration, the lead agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to mitigate or avoid significant environmental effects.

CEQA Guidelines Section 15097(a) states:

> This section applies when a public agency has made the findings required under paragraph (1) of subdivision (a) of section 15091 relative to an EIR or adopted a mitigated negative declaration in conjunction with approving a project. In order to assure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.

MMRP MATRIX

The following table lists all impacts identified in the Final MND as significant or potentially significant along with the proposed mitigation measures required to reduce impacts to less than significant levels.

Mitigation Monitoring and Reporting Plan

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites		
					Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
Biological Resources							
Impact Biology a): Potential to have a substantial adverse effect, either directly or through habitat modifications, on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	**Mitigation Measure BIO-1: Implement the following avoidance or minimization measures for sensitive plant species:** • Before beginning construction, all Contractor construction personnel are required to attend an environmental training program provided by EBMUD of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor construction personnel will receive a CNPS-approved worker environmental awareness training from a qualified biologist (EBMUD). The training will include a description of the sensitive plant species in the Project vicinity, including natural history and habitat, the general protection measures to be implemented to protect the species, and a delineation of the limits of the work areas. Contractor construction personnel will be required to sign documents stating that they understand that take of special-status plant species and destruction or damage of their habitat would be a violation of state and federal law. • Project boundaries will be delineated and flagged prior to construction by the Contractor. All construction activities will be conducted within the delineated Project boundaries. • Staging areas and construction access points will be delineated in the field away from sensitive plant species, and all staging will occur within these designated areas. • In the spring prior to construction, a qualified botanist (EBMUD) will conduct preconstruction sensitive plant surveys in all areas where ground disturbance will occur. Any observed sensitive plant species will be mapped and flagged for avoidance where feasible. EBMUD will notify CDFW or CNPS upon discovery of any sensitive plant species during preconstruction surveys. • Sensitive plant species will be avoided or minimized by limiting ground disturbance where sensitive plants occur. • If California ponysfoot or rayless arnica cannot be avoided, EBMUD will salvage the affected plants and transplant them to a similar habitat in the Project vicinity. The re-established population should achieve a 1:1 ratio (transplanted:re-established) after two years. If this performance criterion cannot be met, an in-lieu fee will be paid to the state CNPS program. • If any additional sensitive plant species are discovered on site that cannot be avoided, the appropriate agencies will be consulted by EBMUD to determine the appropriate species-specific mitigation measures. • Mitigation for sensitive plant species may include: repairing, rehabilitating or restoring the impacted area; preserving in-situ populations on site; or by providing offsite compensation. Offsite compensation may include the permanent protection of an offsite population through a conservation easement or the purchase of mitigation banking credits at a 1:2 ratio.	EBMUD and EBMUD's Construction Contractor	EBMUD	Prior to and During Construction			X
Impact Biology a): Potential to have a substantial adverse effect, either directly or through habitat modifications, on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	**Mitigation Measure BIO-2: Implement the following avoidance and minimization measures for the Alameda whipsnake:** • Before beginning construction, all Contractor construction personnel are required to attend an environmental training program provided by EBMUD of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor construction personnel will receive USFWS-approved worker environmental awareness training from a qualified biologist (EBMUD). The training will include a description of the Alameda whipsnake, including natural history and habitat, a review of the state and federal listing of the species, the general protection measures to be implemented to protect the Alameda whipsnake, and a delineation of the limits of the work areas. Contractor construction personnel will be required to sign documents stating that they understand that take of listed species and destruction or damage of their habitat would be a violation of state and federal law. • Habitat restoration work may include replanting or seeding with plant species that were removed during construction and removal activities. All wildlife exclusion fencing, as described in Mitigation Measure BIO-	EBMUD and EBMUD's Construction Contractor	EBMUD	Prior to and During Construction		X	X

Mitigation Monitoring and Reporting Plan

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites		
					Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoir Site
	5, and construction-related materials will be removed from the site. • Seven days and twenty-four hours prior to construction activities, the Project area will be surveyed for Alameda whipsnakes by a qualified biologist (EBMUD). Surveys of the Project area will be repeated if a lapse in construction activity of two weeks or greater occurs. • Movement of heavy equipment will be confined to existing roadways and the construction work areas defined on Project plans to minimize habitat disturbance. • Clearing and grubbing of the construction site will be confined to the minimum area necessary to facilitate construction activities. • If the Alameda whipsnake is observed at the construction site at any time during construction, work will cease immediately until the snake leaves the work area on its own or is relocated outside of the work area by a permit-approved qualified biologist (EBMUD). Any sightings and any incidental take will be reported to the USFWS and CDFW immediately by EBMUD. • A monitoring report of all activities associated with surveys and mitigation for this species will be submitted to the USFWS and CDFW by EBMUD no later than three months after construction is completed. The monitoring report will describe methods and results of any field survey efforts and mitigation measures implemented before, during or after project construction. • To mitigate losses to critical habitat area due to construction of the new dual reservoirs, EBMUD will obtain habitat credits for habitat suitable for the Alameda whipsnake from a conservation or mitigation bank at a minimum ratio of 1:3 (habitat disturbed:habitat credit purchased). • EBMUD will obtain the required permits from USFWS and CDFW for the potential take of Alameda whipsnakes.						
Impact Biology a): Potential to have a substantial adverse effect, either directly or through habitat modifications, on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	**Mitigation Measure BIO-3: Implement the following avoidance or minimization measures for the San Francisco dusky-footed woodrat:** • Before beginning construction, all Contractor construction personnel are required to attend an environmental training program provided by EBMUD of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor construction personnel will receive USFWS-approved worker environmental awareness training from a qualified biologist (EBMUD). The training will include a description of the San Francisco dusky-footed woodrat, including natural history and habitat, a review of the state and federal listing of the species, the general protection measures to be implemented to protect the San Francisco dusky-footed woodrat, and a delineation of the limits of the work areas. Contractor construction personnel will be required to sign documents stating that they understand that take of listed species and destruction or damage of their habitat would be a violation of state and federal law. • A preconstruction survey will be performed by a qualified biologist (EBMUD) within seven days prior to the start of ground-disturbing activities to identify the locations of active San Francisco dusky-footed woodrat nests within the Project boundary. Any woodrat nests detected will be mapped and flagged for avoidance by the qualified biologist (EBMUD). • If active nests are determined to be present, avoidance measures will be implemented first. Because San Francisco dusky-footed woodrats are year-round residents, avoidance mitigation is limited to restricting Project activities to avoid direct impacts to San Francisco dusky-footed woodrats and their active nests to the extent feasible. A minimum ten-foot buffer should be maintained between Project construction activities and each nest to avoid disturbance. In some situations, a smaller buffer may be allowed if, in the opinion of a qualified biologist (EBMUD), removing the nest would be a greater impact than that anticipated as a result of Project activities. • If an unoccupied woodrat nest is found within the Project site and it cannot be avoided, the nest should be disassembled by hand by a qualified biologist (EBMUD). The nest materials should be relocated off site outside of the wildlife exclusion fencing to prevent rebuilding. • If occupied nests are found within the Project site, and a litter of young is found or suspected, the nest shall be left alone for two to three weeks before a recheck to verify that young are capable of independent survival before proceeding with nest dismantling. Dismantling shall be done by hand, allowing any animals to escape	EBMUD and EBMUD's Construction Contractor	EBMUD	Prior to and During Construction		X	X

Mitigation Monitoring and Reporting Plan

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites		
					Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	either along existing woodrat trails or toward other available habitat. • EBMUD will notify CDFW of any nests, unoccupied or occupied, before they are dismantled.						
Impact Biology a): Potential to have a substantial adverse effect, either directly or through habitat modifications, on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	**Mitigation Measure BIO-4: Implement the following avoidance or minimization activities for Bridges' coast range shoulderband snails:** • Before beginning construction, all Contractor construction personnel are required to attend an environmental training program provided by EBMUD of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor construction personnel will receive worker environmental awareness training from a qualified biologist (EBMUD). The training will include a description of the Bridges' coast range shoulderband snail, including natural history and habitat, the general protection measures to be implemented to protect the snail, and a delineation of the limits of the work areas. • A preconstruction survey will be performed by a qualified biologist (EBMUD) within 30 days prior to the start of ground-disturbing activities to provide a systematic search of vegetation and objects on site that could provide suitable shelter for the Bridges' coast range shoulderband snail. • All live Bridges' coast range shoulderband snails of any life stage that are found during the preconstruction surveys will be captured and moved outside of the Project site, by a qualified biologist (EBMUD), to a site that provides suitable habitat.	EBMUD and EBMUD's Construction Contractor	EBMUD	Prior to and During Construction			X
Impact Biology a): Potential to have a substantial adverse effect, either directly or through habitat modifications, on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS).	**Mitigation Measure BIO-5: Wildlife exclusion fencing.** • Orange barrier safety fencing will be installed along the outside edges of the construction area to prevent encroachment of construction personnel and equipment beyond the approved limits of work. • Wildlife exclusion fencing constructed of plywood, plastic, aluminum or silt fence material will be installed around the work area. Wildlife exclusion fencing will be buried (six inches, minimum) to prevent animals passing under the fence and will be high enough (three feet, minimum) to prevent amphibians, reptiles and small mammals from passing over the fence. Overhanging vegetation will be trimmed. The fencing will be inspected and repaired regularly. The fencing will be removed only when all construction equipment is removed from the Project site. • The fencing will contain one-way egress for special-status species to the extent possible. • A barrier to prevent special-status species from entering the work site will be placed across access roads into and out of the work site at the end of the day to prevent animal movement into the site overnight.	EBMUD and EBMUD's Construction Contractor	EBMUD	Prior to Construction		X	X
Geology and Soils							
Impact Geology Soils a): Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; or landslides. Impact Geology Soils c): Potential to be located on a geologic unit or soil that is unstable or that would become unstable as a result of the proposed project, and potentially could result in on-site or off-site landslides, lateral spreading, subsidence (i.e., settlement), liquefaction,	**Mitigation Measure GEO-1: Incorporate geotechnical investigation of the dual reservoirs site into construction and design requirements.** EBMUD shall conduct a detailed geotechnical investigation at the new dual reservoirs site prior to design to evaluate the potential for liquefaction, subsidence, and lateral spreading; extent of landslide deposits; and develop applicable slope stabilization methods, as necessary. This geotechnical investigation may include drilling or trenching to obtain subsurface information and to develop engineering recommendations for foundation and slope design. Recommendations and results from the geotechnical investigation shall be incorporated into design and construction of the Project to comply with current seismic and engineering standards and to mitigate against geologic and seismic hazards. Recommendations shall also be incorporated into the proposed Project specifications for implementation during construction and shall be verified during construction by a licensed civil engineer (EBMUD) who shall monitor construction activities to ensure compliance with the design intent.	EBMUD	EBMUD Civil Engineer	Prior to Project Design and Project Construction Specifications			X

Impacts Being Mitigated	Mitigation Measure	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites		
					Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
or collapse.							
Impact Geology Soils a): Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; or landslides. Impact Geology Soils c): Potential to be located on a geologic unit or soil that is unstable or that would become unstable as a result of the proposed project, and potentially could result in on-site or off-site landslides, lateral spreading, subsidence (i.e., settlement), liquefaction, or collapse.	**Mitigation Measure GEO-2: Replace soils (colluvium and alluvium) with high liquefaction potential at the new dual reservoirs site within the Project site with compacted fill, as deemed necessary in the geotechnical investigation (MM GEO-1).** Areas of soils with high liquefaction potential within the grading footprint of the new dual reservoirs will be removed and replaced with engineered, compacted fill material. The full extent of the actual locations and amounts to be removed will be determined by a licensed civil engineer (EBMUD) based on the review of grading plans, as well as observations made in the field during grading.	EBMUD Contractor	EBMUD Civil Engineer and Construction Inspector	During Construction			X
Impact Geology Soils a): Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; or landslides. Impact Geology Soils c): Potential to be located on a geologic unit or soil that is unstable or that would become unstable as a result of the proposed project, and potentially could result in on-site or off-site landslides, lateral spreading, subsidence (i.e., settlement), liquefaction, or collapse.	**Mitigation Measure GEO-3: Remove landslide deposits, as deemed necessary in the geotechnical investigation (MM GEO-1).** Areas of landslide deposits within the grading footprint shall be removed. Portions of some landslide areas that extend upslope of the new dual reservoirs site may be left in place; where appropriate, buttress fills and debris catchment areas will be designed and constructed. The extent of actual removals will be determined by a licensed civil engineer (EBMUD) based on the review of grading plans, as well as observations made in the field during grading.	EBMUD Contractor	EBMUD Civil Engineer and Construction Inspector	During Construction			X
Impact Geology Soils a): Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; or landslides. Impact Geology Soils c): Potential to be located on a geologic unit or soil that is unstable or that would become unstable as a result of the proposed project, and potentially could result in on-site or off-site landslides, lateral spreading, subsidence (i.e., settlement), liquefaction, or collapse.	**Mitigation Measure GEO-4: Implement recommended slope stabilization techniques at the new dual reservoirs site, as deemed necessary in the geotechnical investigation (MM GEO-1). Appropriate slope stabilization techniques will be implemented, as recommended by a licensed civil engineer (EBMUD). These techniques include but are not limited to:** • Buttressing or encapsulating landslides using engineered, compacted fill material; • Performing corrective grading and recompaction with engineered fill in shallow cut or natural areas of the Project site; • Installing catchment basins and berms to contain potential debris flows that might occur on the steep areas upslope from the proposed reservoirs; • Installing additional buttress fill at the toe of the existing landslide; • Installing plate pile slope reinforcement technologies; • Installing drainage mechanisms, such as subdrains, concrete-lined channels, finger drains, hydroaugers, or gallery drains, within the slopes to move shallow subsurface water away from unstable slopes.	EBMUD Contractor	EBMUD Civil Engineer and Construction Inspector	During Construction			X

EXHIBIT C

PRACTICES AND PROCEDURES MONITORING AND REPORTING PLAN

The following table lists all applicable requirements from EBMUD's Standard Construction Specifications, Environmental Compliance Manual, Procedures, Design Guides, and Engineering Standard Practices ("EBMUD Practices and Procedures") that have been incorporated into the Project. These EBMUD Practices and Procedures are standardized practices and procedures applicable to all EBMUD projects, are not tailored to address specific impacts of the Project, reflect generally applicable EBMUD standard operating procedures, and as such have been properly incorporated into the project itself rather than being imposed as mitigation measures. Nonetheless, to ensure their implementation and to streamline monitoring thereof, the Board of Directors has formally adopted these EBMUD Practices and Procedures, imposed them as conditions of Project approval, and adopted this Practices and Procedures Monitoring and Reporting Plan.

EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
Aesthetics							
Aesthetics a): Potential to have a substantial adverse effect on a scenic vista.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 3.7 Protection of Native and Non-Native Protected Trees A. Tree Protection 1. Locations of trees to be removed and protected are shown in the construction drawings. Pruning and trimming shall be completed by the Contractor and approved by the Engineer. Pruning shall adhere to the Tree Pruning Guidelines of the International Society of Arboriculture. 2. Erect exclusion fencing five feet outside of the drip lines of trees to be protected. Erect and maintain a temporary minimum 3-foot high orange plastic mesh exclusion fence at the locations as shown in the drawings. The fence posts shall be six-foot minimum length steel shapes, installed at 10-feet minimum on center, and be driven into the ground. The Contractor shall be prohibited from entering or disturbing the protected area within the fence except as directed by the Engineer. Exclusion fencing shall remain in place until construction is completed and the Engineer approves its removal. 3. No grading, construction, demolition, trenching for irrigation, planting or other work, except as specified herein, shall occur within the tree protection zone established by the exclusion fencing installed shown in the drawings. In addition, no excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the tree protection zone. 4. In areas that are within the tree drip line and outside the tree protection zone that are to be traveled over by vehicles and equipment, the areas shall be covered with a protective mat composed of a 12-inch thickness of wood chips or gravel and covered by a minimum ¾-inch-thick steel traffic plate. The protective mat shall remain in place until construction is completed and the Engineer approves its removal. 5. Tree roots exposed during trench excavation shall be pruned cleanly at the edge of the excavation and treated to the satisfaction of a certified arborist provided by the District. 6. Any tree injured during construction shall be evaluated as soon as possible by a certified arborist provided by the District, and replaced as deemed necessary by the certified arborist.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction		X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Applicable Sites: Existing Dos Osos Reservoir Site	Applicable Sites: Proposed Dual Reservoirs Site
Air Quality							
Air Quality b): Potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 1.3 (E) Dust Control and Monitoring Plan 1. Submit a plan detailing the means and methods for controlling and monitoring dust generated by demolition and other work on the site for the Engineer's acceptance prior to any work at the jobsite. The plan shall comply with all applicable regulations including but not limited to the Bay Area Air Quality Management District (BAAQMD) visible emissions regulation and Public Nuisance Rule. The plan shall include items such as mitigation measures to control fugitive dust emissions generated by construction activities. The Plan shall outline best management practices for preventing dust emissions, provide guidelines for training of employees, and procedures to be used during operations and maintenance activities. The plan shall also include measures for the control of paint overspray generated during the painting of exterior surfaces. The plan shall detail the equipment and methods used to monitor compliance with the plan. The handling and disposal of water used in compliance with the Dust Control Plan shall be addressed in the Water Control and Disposal Plan. 1.3 (I) Tuneup Logs 1. The Contractor shall submit a log of required tuneups for all construction equipment, particularly haul and delivery trucks, on a quarterly basis for review. 3.3 (B) Dust Control 1. Contractor shall implement all necessary dust control measures, including but not limited to the following: a. Water and/or coarse rock all dust-generating construction areas as directed by Engineer to reduce the potential for airborne dust from leaving the site. b. Cover all haul trucks entering/leaving the site and trim their loads as necessary. c. Using wet power vacuum street sweepers to: 1) Sweep all paved access road, parking areas and staging areas at the construction site daily or as often as necessary. 2) Sweep public roads adjacent to the site at least twice daily or as often as necessary. d. The use of dry power sweeping is prohibited. e. All trucks and equipment, including their tires, shall be washed off prior to leaving the site. f. Gravel or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. g. Water and/or cover soil stockpiles daily. h. Site accesses to a distance of 100 feet from the paved road shall be treated with 12-inch layer of compacted coarse rock. i. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. j. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. k. Building pads shall be laid as soon as possible after grading.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dust Reservoirs Site
	n. All vehicle speeds shall be limited **to fifteen** (15) mph or less on the construction site and any adjacent unpaved roads. 3.4. Emissions Control A. Air Quality and Emissions Control 1. The Contractor shall ensure that line power is used instead of diesel generators at all construction sites where line power is available. 2. The Contractor shall ensure that for operation of any stationary, compression-ignition engines as part of construction, comply with Section 93115, Title 17, California Code of Regulations, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements as well as emission standards. 3. Fixed temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) shall be electrically powered unless the Contractor submits documentation and receives approval from the Engineer that the use of such equipment is not practical, feasible, or available. All portable engines and equipment units used as part of construction shall be properly registered with the California Air Resources Board or otherwise permitted by the appropriate local air district, as required. 4. Contractor shall implement standard air emissions controls such as: a. Minimize the use of diesel generators where possible. b. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes as required by the California Airborne Toxics Control Measure (ATCM) Title 13, Section 2485 of California Code of Regulations. Clear signage shall be provided for construction workers at all access points. c. Follow applicable regulations for fuel, fuel additives, and emission standards for stationary, diesel-fueled engines. d. Locate generators at least 100 feet away from adjacent homes and ball fields. e. Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment.						
Air Quality c): Potential to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.3) (E, I); (3.3) (B); 3.4 (A) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Air Quality d): Potential to expose sensitive receptors to substantial pollutant concentrations.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.3) (E, I); (3.3) (B); 3.4 (A) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Air Quality e): Potential to create objectionable odors affecting a substantial number of people.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.3) (I); (3.4) (A) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Applicable Sites: Existing Dos Osos Reservoir Site	Applicable Sites: Proposed Dual Reservoirs Site
Biological Resources							
Biology a): Potential to have a substantial adverse effect, either directly or through habitat modifications, on candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish & Wildlife or U.S. Fish & Wildlife Service.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 3.8 Protection of Biological Resources A. The District will conduct biological reconnaissance and tree surveys in advance of construction and will conduct biologic and arboreal monitoring during construction as necessary. B. Protected Species 1. If protected species or suitable habitat for protected species is found during biological reconnaissance surveys: a. Before beginning construction, all Contractor construction personnel are required to attend an environmental training program of up to one-day for site supervisors, foreman and project managers and up to 30-minutes for non-supervisory contractor personnel. The training program will be completed in person or by watching a video, at a District designated location, conducted by a qualified biologist. The program will discuss all sensitive habitats and sensitive species that may occur within the project work limits, including the responsibilities of Contractor's construction personnel, applicable mitigation measures, and notification requirements. The Contractor is responsible for ensuring that all workers requiring training are identified to the District. Prior to accessing or performing construction work, all Contractor personnel shall: Sign a wallet card provided by the Engineer verifying that all Contractor construction personnel have attended the appropriate level of training relative to their position; have read and understood the contents of any applicable documentation; and shall comply with all project environmental requirements. Display an environmental training hard hat decal (provided by the District after completion of the training) at all times. b. Birds Protected under the Migratory Bird Treaty Act: 1. It is unlawful to pursue, hunt, take, capture, or kill any migratory bird without a permit issued by the U.S. Department of the Interior. 2. If construction commences between February 1 and August 31, during the nesting season, the District will conduct a preconstruction survey for nesting birds within 7 days prior to construction to ensure that no nest will be disturbed during construction. 3. If active nests of migratory bird species (listed in the MBTA) are found within the project site, or in areas subject to disturbance from construction activities, an avoidance buffer to avoid nest disturbance shall be constructed. The buffer size will be determined by the District in consultation with California Department of Fish and Wildlife (CDFW) and is based on the nest location, topography, cover and species' tolerance to disturbance. 4. If an avoidance buffer is not achievable, a qualified biologist provided by the District will monitor the nest(s) to document that no take of the nest (nest failure) has occurred. Active nests shall not be taken or destroyed under the MBTA and, for raptors, under the CDFW Code. If it is determined that construction activity is resulting in nest disturbance, work should cease immediately and the Contractor shall notify the Engineer who will consult with the qualified biologist and appropriate regulatory agencies. 5. If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further action is required. Trees and shrubs within the construction footprint that have been determined to be unoccupied by special-status birds or that	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Applicable Sites: Existing Dos Osos Reservoir Site	Applicable Sites: Proposed Dual Reservoirs Site
	are located outside the avoidance buffer for active nests may be removed. Nests initiated during construction (while significant disturbance from construction activities persist) may be presumed to be unaffected, and only a minimal buffer, determined by District's biologist, would be necessary.						
	c. Roosting Bats 1. If construction commences between March 1 and July 31, during the bat maternity period, the District will conduct a preconstruction survey for roosting bats within two weeks prior to construction to ensure that no roosting bats will be disturbed during construction. 2. If roosting surveys indicate potential occupation by a special-status bat species, and/or identify a large day roosting population or maternity roost by any bat species within 200 feet of a construction work area, a qualified biologist provided by the District will conduct focused day- and/or night-emergence surveys, as appropriate. 3. If active maternity roosts or day roosts are found within the project site, or in areas subject to disturbance from construction activities, an avoidance buffers shall be constructed. The buffer size will be determined by the District in consultation with CDFW. 4. If a non-breeding bat roost is found in a structure scheduled for modification or removal, the bats shall be safety evicted, under the direction of a qualified biologist provided by the District in consultation with CDFW to ensure that the bats are not injured. 5. If preconstruction surveys indicate that no roosting is present, or potential roosting habitat is unoccupied during the construction period, no further action is required. Trees and shrubs within the construction footprint that have been determined to be unoccupied by roosting bats, or that are located outside the avoidance buffer for active roosting sites may be removed. Roosting initiated during construction is presumed to be unaffected, and no buffer would be necessary.						

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
Cultural Resources							
Cultural Resources b): Potential to cause a substantial adverse change in the significance of a unique archaeological resource as defined in Section 15064.5 (of the CEQA Guidelines).	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 3.9 Protection of Cultural and Paleontological Resources A. Confidentiality of Information on Cultural Resources 1. Prior to, or during the course of the Contractor's performance under this contract, the Contractor may obtain information as to the location and/or nature of certain cultural resources, including Native American artifacts and remains. This information may be provided to the Contractor by the District or a third party, or may be discovered directly by the Contractor through its performance under the contract. All such information shall be considered "Confidential Information" for the purposes of this Article. 2. The Contractor agrees that the Contractor, its subcontractors, and their respective agents and employees shall not publish or disclose any Confidential Information to any person, unless specifically authorized in advance, in writing by the Engineer. 3. The indemnity obligations of Document 00 72 00 Article 4.7.5 shall apply to any breach of this Article." B. Conform to the requirements of statutes as they relate to the protection and preservation of cultural and paleontological resources. Unauthorized collection of prehistoric or historic artifacts along the Work Area, or at Work facilities, is strictly prohibited. C. Before beginning construction, all Contractor construction personnel are required to attend a cultural resources training course of up to two-hours for site supervisors, foreman, project managers, and non-supervisory contractor personnel. The training program will be completed in person or by watching a video, at a District designated location, conducted by a qualified archaeologist or by District staff. The program will discuss cultural resources awareness within the project work limits, including the responsibilities of Contractor's construction personnel, applicable mitigation measures, confidentiality, and notification requirements. The Contractor is responsible for ensuring that all workers requiring training are identified to the District. Prior to accessing the construction site or performing site work, all Contractor personnel shall: 1. Sign an attendance sheet provided by the Engineer verifying that all construction personnel have attended the appropriate level of training; have read and understood the contents of the training; have read and understood the contents of the "Confidentiality of Information on Archaeological Resources"; and shall comply with all project environmental requirements. D. In the event that potential cultural or paleontological resources are discovered at the site of construction, the following procedures shall be instituted: 1. Discovery of prehistoric or historic-era archaeological resources requires that all construction activities shall immediately cease at the location of discovery and within 100 feet of the discovery. a. The Contractor shall immediately notify Engineer who will engage a qualified archaeologist provided by the District to evaluate the find. The Contractor is responsible for stopping work and notifying the proper personnel and shall not recommence work until authorized to do so by the Engineer. b. The District will retain a qualified archaeologist to inspect the findings within 24 hours of discovery. If it is determined that the Project could damage a historical resource as defined by CEQA (or a historic property as defined by the National Historic Preservation Act of 1966, as	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Applicable Sites: Existing Dos Osos Reservoir Site	Applicable Sites: Proposed Dual Reservoirs Site
	amended), construction shall cease in an area determined by the archaeologist until a mitigation plan has been prepared, approved by the District, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who shall be identified by the Native American Heritage Commission [NAHC]). In consultation with the District, the archaeologist (and Native American representative) will determine when construction can resume. 2. Discovery of human remains requires that all construction activities shall immediately cease at, and within 100 feet, of the location of discovery. a. The Contractor shall immediately notify Engineer who will engage a qualified archaeologist provided by the District to evaluate the find. The Contractor is responsible for stopping work and notifying the proper personnel and shall not recommence work until authorized to do so by the Engineer. b. The District will contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the Native American Heritage Commission (NAHC). The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the District for the appropriate means of treating the human remains and any associated funerary objects. E. If the District determines that the find requires further evaluation, at the direction of Engineer, the Contractor shall suspend all construction activities at the location of the find and within a larger radius, as required.						
Cultural Resources c): Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Section 3.9 Protection of Cultural and Paleontological Resources (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Cultural Resources d): Potential to disturb any human remains, including those interred outside of formal cemeteries.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Section 3.9 Protection of Cultural and Paleontological Resources (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Applicable Sites: Existing Dos Osos Reservoir Site	Applicable Sites: Proposed Dual Reservoirs Site
Geology and Soils							
Geology and Soils a) Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; or landslides.	**EBMUD's Engineering Standard Practices 512.1 and 550.1** EBMUD uses two primary Engineering Standard Practices for the design of water pipelines in its distribution system to address geologic hazards. Engineering Standard Practice 512.1, Water Main and Services Design Criteria, establishes basic criteria for the design of water pipelines and establishes minimum requirements for pipeline construction materials. Engineering Standard Practice 550.1, Seismic Design Requirements, addresses seismic design of the pipelines to withstand seismic hazards, including fault rupture, ground shaking, liquefaction-related phenomena, landslides, seiches and tsunamis and requires that EBMUD establish project-specific seismic design criteria for pipelines with a diameter of greater than 12 inches, such as the water mains that would be installed under the proposed Project.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction			X
Geology and Soils b) Potential to result in substantial soil erosion or the loss of topsoil.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.1) (B) (1) to (1.1) (B) (12) 1.1 Description B. Site Activities 1. No debris including, but not limited to, demolition material, treated wood waste, stockpile leachate, soil, silt, sand, bark, slash, sawdust, asphalt, rubbish, paint, oil, cement, concrete or washings thereof, oil or petroleum products, or other organic or earthen materials from construction activities shall be allowed to enter into storm drains or surface waters or be placed where it may be washed by rainfall or runoff outside the construction limits. When operations are completed, excess materials or debris shall be removed from the work area as specified in the Construction and Demolition Waste Disposal Plan. 2. Excess material shall be disposed of in locations approved by the Engineer consistent with all applicable legal requirements and disposal facility permits. 3. Do not create a nuisance or pollution as defined in the California Water Code. Do not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board, as required by the Clean Water Act. 4. Clean up all spills and immediately notify the Engineer in the event of a spill. 5. Stationary equipment such as motors, pumps, and generators, shall be equipped with drip pans. 6. Divert or otherwise control surface water and waters flowing from existing projects, structures, or surrounding areas from coming onto the work and staging areas. The method of diversions or control shall be adequate to ensure the safety of stored materials and of personnel using these areas. Following completion of Work, ditches, dikes, or other ground alterations made by the Contractor shall be removed and the ground surfaces shall be returned to their former condition, or as near as practicable, in the Engineer's opinion. 7. Maintain construction sites to ensure that drainage from these sites will minimize erosion of stockpiled or stored materials and the adjacent native soil material. 8. Furnish all labor, equipment, and means required and shall carry out effective measures wherever, and as often as necessary, to prevent Contractor's operations from causing visible dust emissions to leave the work areas. These measures shall include, but are not limited to, providing additional watering equipment, reducing vehicle speeds on haul roads, restricting traffic on haul roads, covering haul vehicles, and applying a dust palliative to well-traveled haul roads. The Contractor shall provide the specifications of the dust palliative for Engineer approval prior to use. The Contractor shall be	EBMUD and EBMUD's Contractor	EBMUD	During Construction			X

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Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	responsible for damage resulting from dust originating from its operations. The dust abatement measures shall be continued for the duration of the Contract. Water the site in the morning and evening, and as often as necessary, and clean vehicles leaving the site as necessary to prevent the transportation of dust and dirt onto public roads. Dust control involving water shall be done in such a manner as to minimize waste and runoff from the site. 9. Construction staging areas shall be graded, or otherwise protected with Best Management Practices (BMPs), to contain surface runoff so that contaminants such as oil, grease, and fuel products do not drain towards receiving waters including wetlands, drainages, and creeks. 10. All construction equipment shall be properly serviced and maintained in good operating condition to reduce emissions. Contractor shall make copies of equipment service logs available upon request. 11. Any chemical or hazardous material used in the performance of the Work shall be handled, stored, applied, and disposed of in a manner consistent with all applicable federal, state, and local laws and regulations. 12. Contaminated materials excavated and/or removed from the construction area shall be disposed of in a manner consistent with all applicable local, state, and federal laws and regulations. 1.3 (A) Storm Water Management: 2. Storm Water Pollution Prevention Plan (SWPPP) a. Submit a Stormwater Pollution Prevention Plan that describes measures that shall be implemented to prevent the discharge of contaminated storm water runoff from the jobsite. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, pH less than 6.5 or greater than 8.5, and chlorine residual and all other contaminants known to exist at the jobsite location.						
Greenhouse Gas Emissions							
Greenhouse Gas Emissions a): Potential to generate annual GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 3.4. Emissions Control A. Air Quality and Emissions Control 1. The Contractor shall ensure that line power is used instead of diesel generators at all construction sites where line power is available. 2. The Contractor shall ensure that for operation of any stationary, compression-ignition engines as part of construction, comply with Section 93115, Title 17, California Code of Regulations, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements as well as emission standards. 3. Fixed temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) shall be electrically powered unless the Contractor submits documentation and receives approval from the Engineer that the use of such equipment is not practical, feasible, or available. All portable engines and equipment units used as part of construction shall be properly registered with the California Air Resources Board or otherwise permitted by the appropriate local air district, as required. 4. Contractor shall implement standard air emissions controls such as: a. Minimize the use of diesel generators where possible. b. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes as required by the California Airborne Toxics Control Measure (ATCM) Title 13, Section 2485 of California Code of Regulations. Clear signage	EBMUD and EBMUD's Contractor	EBMUD	During Construction	X	X	X

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	shall be provided for construction workers at all access points. c. Follow applicable regulations for fuel, fuel additives, and emission standards for stationary, diesel-fueled engines. d. Locate generators at least 100 feet away from adjacent homes and ball fields. e. Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment. Sections (3.4) (A) (5) (a-d) a. On road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and re-inflated at regular intervals. b. Construction equipment engines shall be maintained to manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. c. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of Oxide of Nitrogen (NOx) and Particulate Matter (PM). d. Demolition debris shall be recycled for reuse to the extent feasible.						
Hazards and Hazardous Materials							
Hazards and Hazardous Materials a): Potential to create a significant hazard to human health and/or the environment involving the release of hazardous materials.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 1.3 (A) Storm Water Management: 2. Storm Water Pollution Prevention Plan (SWPPP) a. Submit a Stormwater Pollution Prevention Plan that describes measures that shall be implemented to prevent the discharge of contaminated storm water runoff from the jobsite. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, pH less than 6.5 or greater than 8.5, and chlorine residual and all other contaminants known to exist at the jobsite location. 1.3 (C) Construction and Demolition Waste Disposal Plan: 1. Prepare a Construction and Demolition Waste Disposal Plan and submit a copy of the plan for the Engineer's acceptance prior to disposing of any material (except for water wastes which shall be addressed in the Water Control and Disposal Plan). a. The plan shall identify how the Contractor will remove, handle, transport, and dispose of all materials required to be removed under this contract in a safe, appropriate, and lawful manner in compliance with all applicable regulations of local, state, and federal agencies having jurisdiction over the disposal of removed materials. b. The Contractor shall procure the necessary permits required by the local, state, and federal agencies having jurisdiction over the handling, transportation, and disposal of construction and demolition waste. c. Include a list of reuse facilities, recycling facilities and processing facilities that will be receiving recovered materials. d. Identify materials that are not recyclable or not recovered which will be disposed of in a landfill (or other means acceptable by the State of California and local ordinance and regulations). g. List the permitted landfill, or other permitted disposal facilities that will be accepting the disposed waste materials. h. Identify each type of waste material to be reused, recycled or disposed of and estimate the amount, by weight.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	i. Plan shall include the sampling and analytical program for characterization of any waste material, as needed, prior to reuse, recycle or disposal. 2. Materials or wastes shall only be disposed of at facilities approved of by the District. 3. Submit permission to reuse, recycle, reclaim, or dispose of material from reuse, recycling, reclamation, or disposal site owner along with any other information needed by the District to evaluate the acceptability of the proposed reuse, recycling, or disposal site and obtain acceptance of the Engineer prior to removing any material from the project site. 4. All information pertinent to the characterization of the material or waste shall be disclosed to the District and the reuse, recycling, reclamation, or disposal facility. Submit copies of any profile forms and/or correspondence between the Contractor and the reuse, recycling, reclamation, or disposal facility. 5. Submit name and Environmental Laboratory Accreditation Program Certificate number of laboratory that will analyze samples for suspected hazardous substances. Include statement of laboratory's certified testing areas and analyses that laboratory is qualified to perform. Submit prior to any laboratory testing. 1.3 (D) Spill Prevention and Response Plan 1. Submit plan detailing the means and methods for preventing and controlling the spilling of known hazardous substances used on the jobsite or staging areas. The plan shall include a list of the hazardous substances proposed for use or generated by the Contractor on site, including petroleum products, and measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. Spill response measures shall address notification of the Engineer and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup. 2. Submit a Material Safety Data Sheet (MSDS) for each hazardous substance proposed to be used prior to delivery of the material to the jobsite.						
	EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements 1.3 (B) Project Safety and Health Plan: 1. Submit prior to start of the Work for the Engineer's review a Project Safety and Health Plan for the Work to be performed only if actual, potential, or anticipated hazards include: a) hazardous substances; b) fall protection issues; c) confined spaces; d) trenches or excavations; or, e) lockout/tagout. If the actual, potential, or anticipated hazards do not include one or more of these five hazards, no Plan is required. 2. Submit prior to start of Work the name of individual(s) who has been designated as: a. Contractor's Project Safety and Health Representative b. Submit principal and alternate Competent/Qualified Persons for: 1) scaffolding; 2) fall protection systems and equipment; and 3) employee protective systems for trenches and excavations. c. Qualified person to conduct and take samples and air measurements of known or suspect hazardous substance for personnel and environmental exposure. Sample results shall be submitted to the Engineer in writing and electronic format. 3. Plan shall include an emergency action plan in the event of an accident, or serious unplanned event (e.g.: gasoline break, fire, structure collapse, etc.) that requires notifying any responsive agencies (e.g.: fire departments, PG&E, rescue teams, etc.).	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	1.4 Training Requirements A. Ensure that all personnel who, as the result of work on this contract, will likely be exposed to hazardous conditions or hazardous substances at the site have received the appropriate training for the hazards they may encounter. Establish minimum training requirements and do not allow untrained workers to enter or perform Work at the site.						
	EBMUD's Environmental Compliance Manual Section 3, Water Quality Protection, of the Environmental Compliance Manual describes how EBMUD complies with the National Pollutant Discharge Elimination System (NPDES) permit issued by the San Francisco Bay Regional Water Quality Control Board for planned, unplanned, and emergency discharges from the potable water transmission, storage, and distribution system. This section addresses water quality permitting issues related to facility discharges, potable water discharges, construction stormwater discharges, sanitary sewer overflows, and other activities within navigable waters such as streambed alterations, dredging, levee maintenance, and bank stabilization. Section 3.0, Water Quality Protection, of the EBMUD Environmental Compliance Manual also requires: • placement of BMPs (dechlorination tabs and sediment control) at all affected storm drains, even if there are no planned discharges, since unplanned discharges may occur at any time when working on pipelines containing chlorinated water; • photo documentation of all BMP installations; • documented calculation of the amount of dechlorination agent necessary to dechlorinate the planned discharge; • measurement and recording of the amount of dechlorination agent used; Section 9, Trench Spoils Field Management Practices, of the Environmental Compliance Manual includes a Trench Spoils Best Management Practices (BMP) program that describes procedures to be followed prior to and during projects to ensure that worker exposure to contaminants of concern is minimized and that spoils are disposed of properly. The Trench Spoils Field Management Practices require project site investigations, collection and analysis of soil, slurry and groundwater samples if deemed necessary by initial site investigations and database record searches, and, depending on the results of the sampling, advance soil, slurry and groundwater disposal arrangements.	EBMUD and EBMUD's Contractor	EBMUD	During Construction	X	X	X
	EBMUD's Standard Construction Specification 02 83 13, Lead Hazard Control Activities 1.1 Compliance and Intent A. Furnish all labor, materials, facilities, equipment, services, employee training and testing, permits, and agreements necessary to perform the lead removal in accordance with these specifications and with the latest regulations from the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Air Quality Management District with authority over the project, the Cal/EPA Department of Toxic Substance Control, the California Occupational Safety and Health Administration (Cal/OSHA), and other federal, state, county, and local agencies. Whenever there is a conflict or overlap of the above references, the most stringent provision is applicable. B. During demolition procedures, the Contractor shall protect against contamination of soils, water, adjacent buildings and properties, and the airborne release of hazardous materials and dusts. The costs associated with the implementation of controls will be incurred by the Contractor. C. Any information developed from exploratory work done by the District and any investigation done by the Contractor to acquaint himself with available information will not relieve the Contractor from the responsibility of properly estimating the difficulty or cost of successfully performing the work. The District is not responsible for any conclusions or interpretations made by the Contractor based on the information made available by the District or District's representative.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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	D. Hazardous materials uncovered during the demolition activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. Appropriate waste manifests shall be furnished to the Engineer as per Section 01 35 44, Environmental Requirements.						
	EBMUD's Standard Construction Specification 02 82 13, Asbestos Control Activities 1.1 Compliance and Intent A. Furnish all labor, materials, facilities, equipment, services, employee training and testing, permits, and agreements necessary to perform the asbestos removal in accordance with these specifications and with the latest regulations from the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Bay Area Air Quality Management District (BAAQMD), the Cal/EPA Department of Toxic Substance Control, the California Department of Occupational Safety and Health (DOSH), and other federal, state, county, and local agencies. Whenever there is a conflict or overlap of the above references, the most stringent provision is applicable. C. During demolition procedures, the Contractor shall protect against contamination of soils, water, adjacent buildings and properties, and the airborne release of hazardous materials and dusts. The Contractor will incur the costs associated with the implementation of controls and, if necessary, remediation. The Contractor shall be responsible for all necessary cleanup of contaminated areas/properties to pre-work condition and for all associated costs. It is the Contractor's responsibility to confirm and document the quantities of asbestos material to be removed. D. Any information developed from exploratory work done by the District and any investigation done by the Contractor to acquaint himself with available information will not relieve the Contractor from the responsibility of properly estimating the difficulty or cost of successfully performing the work. The District is not responsible for any conclusions or interpretations made by the Contractor based on the information made available by the District or District's representative. E. Asbestos materials uncovered during the demolition activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. Appropriate waste manifests shall be furnished to the Engineer as per Sections 01 35 24 and 01 35 44. F. Materials and equipment shall be stored in the areas as directed by the Engineer.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
	EBMUD's Procedure 711, Hazardous Waste Removal This procedure defines hazardous waste and establishes responsibilities for removal of hazardous wastes from EBMUD facilities. This procedure outlines specific steps and responsibilities for: characterizing the waste and determining what analyses are needed to classify the waste; coordinating waste disposal, reuse or recycling issues; labeling, storing, inspecting, and maintaining inventory records for the waste; and reviewing, signing, and tracking any hazardous waste handling and disposal requirements and hazardous waste manifests.				X	X	X
Hazards and Hazardous Materials b) Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.3) (A) (C) (D) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
	EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements Sections (1.3) (B) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
	EBMUD's Environmental Compliance Manual Section 3 (Details as previously listed) Section 9 (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	During Construction	X	X	X
	EBMUD's Standard Construction Specification 02 83 13, Lead Hazard Control Activities Sections (1.1) and (1.2) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	EBMUD's Standard Construction Specification 02 82 13, Asbestos Control Activities Sections (1.1) and (1.2) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
	EBMUD's Procedure 711, Hazardous Waste Removal (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Hazards and Hazardous Materials h) Potential to expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	**EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements** 1.6 Fire Prevention and Protection A. Perform all Work in a fire safe manner and supply and maintain on the site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable federal, local, and state fire prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standards for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.	EBMUD and EBMUD's Contractor	EBMUD	During Construction	X	X	X

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Hydrology and Water Quality							
Hydrology and Water Quality a): Potential to violate water quality standards or waste discharge requirements.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.1) (B) (1) to (1.1) (B) (12) 1.1 Description B. Site Activities 1. No debris including, but not limited to, demolition material, treated wood waste, stockpile leachate, soil, silt, sand, bark, slash, sawdust, asphalt, rubbish, paint, oil, cement, concrete or washings thereof, oil or petroleum products, or other organic or earthen materials from construction activities shall be allowed to enter into storm drains or surface waters or be placed where it may be washed by rainfall or runoff outside the construction limits. When operations are completed, excess materials or debris shall be removed from the work area as specified in the Construction and Demolition Waste Disposal Plan. 2. Excess material shall be disposed of in locations approved by the Engineer consistent with all applicable legal requirements and disposal facility permits. 3. Do not create a nuisance or pollution as defined in the California Water Code. Do not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board, as required by the Clean Water Act. 4. Clean up all spills and immediately notify the Engineer in the event of a spill. 5. Stationary equipment such as motors, pumps, and generators, shall be equipped with drip pans. 6. Divert or otherwise control surface water and waters flowing from existing projects, structures, or surrounding areas from coming onto the work and staging areas. The method of diversions or control shall be adequate to ensure the safety of stored materials and of personnel using these areas. Following completion of Work, ditches, dikes, or other ground alterations made by the Contractor shall be removed and the ground surfaces shall be returned to their former condition, or as near as practicable, in the Engineer's opinion. 7. Maintain construction sites to ensure that drainage from these sites will minimize erosion of stockpiled or stored materials and the adjacent native soil material. 8. Furnish all labor, equipment, and means required and shall carry out effective measures wherever, and as often as necessary, to prevent Contractor's operations from causing visible dust emissions to leave the work areas. These measures shall include, but are not limited to, providing additional watering equipment, reducing vehicle speeds on haul roads, restricting traffic on haul roads, covering haul vehicles, and applying a dust palliative to well-traveled haul roads. The Contractor shall provide the specifications of the dust palliative for Engineer approval prior to use. The Contractor shall be responsible for damage resulting from dust originating from its operations. The dust abatement measures shall be continued for the duration of the Contract. Water the site in the morning and evening, and as often as necessary, and clean vehicles leaving the site as necessary to prevent the transportation of dust and dirt onto public roads. Dust control involving water shall be done in such a manner as to minimize waste and runoff from the site. 9. Construction staging areas shall be graded, or otherwise protected with Best Management Practices (BMPs), to contain surface runoff so that contaminants such as oil, grease, and fuel products do not drain towards receiving waters including wetlands, drainages, and creeks. 10. All construction equipment shall be properly serviced and maintained in good operating condition to reduce emissions. Contractor shall make copies of equipment service logs available upon request.	EBMUD and EBMUD's Contractor	EBMUD	During Construction			X

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	11. Any chemical or hazardous material used in the performance of the Work shall be handled, stored, applied, and disposed of in a manner consistent with all applicable federal, state, and local laws and regulations. 12. Contaminated materials excavated and/or removed from the construction area shall be disposed of in a manner consistent with all applicable local, state, and federal laws and regulations.						
	EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements 1.3 (A) Storm Water Management: 2. Storm Water Pollution Prevention Plan (SWPPP) a. Submit a Stormwater Pollution Prevention Plan that describes measures that shall be implemented to prevent the discharge of contaminated storm water runoff from the jobsite. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, pH less than 6.5 or greater than 8.5, and chlorine residual and all other contaminants known to exist at the jobsite location. 1.3 (B) Water Control and Disposal Plan: 1. The Contractor shall submit a detailed Water Control and Disposal Plan for the Engineer's acceptance prior to any work at the jobsite. a. Plan shall comply with all requirements of the Specification and applicable discharge permits. b. Contractor shall maintain proper control of the discharge at the discharge point to prevent erosion, scouring of bank, nuisance, contamination, and excess sedimentation in the receiving waters. 2. Drinking Water System Discharges a. Plan shall include the estimated flow rate and volume of all proposed discharges to surface waters, including discharges to storm drains. All receiving waters shall be clearly identified. b. Contractor shall track all discharges directly to a surface water body or a storm drain system that drains to a surface water body. A record consisting of discharge locations and volumes shall be submitted to the Engineer prior to contract acceptance. c. A monitoring program is required for drinking water system discharges greater than 325,850 gallons in conformance with Attachment E, Monitoring and Reporting Program, of the General Drinking Water Discharges Permit, when the water will be discharged either directly into a surface water body or a storm drain system that drains to a surface water body. A record consisting of discharge locations, volumes and WQ data shall be submitted to the Engineer. The Planned Discharge Tracking Form attached to the end of this section, may be used to fulfill this requirement. All monitoring results shall be submitted to the Engineer prior to contract acceptance. d. Contractor shall dechlorinate all drinking water system discharges to achieve a total chlorine residual concentration of < 0.1 mg/L measured with a handheld chlorine meter utilizing a US EPA approved method and provide effective erosion & sediment control to achieve a visual turbidity concentration of ≤ 100 NTU by implementing BMPs which meet the District minimum standards or better. e. Instead of discharging to surface waters, where feasible, Contractor shall beneficially reuse water derived from drinking water systems as defined in the General Drinking Water Discharges Permit. Potential reuse strategies include, but are not limited to, landscape irrigation, agricultural irrigation, dust control, and discharge to stormwater capture basins or other groundwater recharge systems. Contractor shall do so without impacting property or the environment. Contractor shall provide a record of reuse location(s) and volume(s) and submit it to the Engineer prior to contract acceptance.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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	f. Contractor **shall ensure** that the pH level of any discharges shall not be depressed below 6.5 nor raised above 8.5. If there is potential for discharges to be below 6.5 or above 8.5, Contractor shall employ pH adjustment best management practices to ensure discharges are within the range of 6.5 and 8.5. Contractor shall conduct onsite field measurements for pH per quality assurance and quality control (QA/QC) protocol that conform to U.S. EPA guidelines, or procedures approved by the American Water Works Association or other professional drinking water industry association. Contractor shall submit all monitoring results to the Engineer prior to contract acceptance. 3. Non-Stormwater Discharges a. Plan shall describe measures for containment, handling, treatment (as necessary), and disposal of discharges such as groundwater (if encountered), runoff of water used for dust control, stockpile leachate, tank heel water, wash water, sawcut slurry, test water and construction water or other liquid that has been in contact with any interior surfaces of District facilities. Contractor shall provide the Engineer with containment, handling, treatment and disposal designs and a sampling & analysis plan for approval before commencing the Work. 1.3 (D) Spill Prevention and Response Plan 1. Submit plan detailing the means and methods for preventing and controlling the spilling of known hazardous substances used on the jobsite or staging areas. The plan shall include a list of the hazardous substances proposed for use or generated by the Contractor on site, including petroleum products, and measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. Spill response measures shall address notification of the Engineer and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup. 2. Submit a Material Safety Data Sheet (MSDS) for each hazardous substance proposed to be used prior to delivery of the material to the jobsite.						
	EBMUD's Environmental Compliance Manual Section 3, "Water Quality Protection," of the Environmental Compliance Manual describes how EBMUD complies with the National Pollutant Discharge Elimination System (NPDES) permit issued by the San Francisco Bay Regional Water Quality Control Board for planned, unplanned, and emergency discharges from the potable water transmission, storage, and distribution system. This section addresses water quality permitting issues related to facility discharges, potable water discharges, construction stormwater discharges, sanitary sewer overflows, and other activities within navigable waters such as streambed alterations, dredging, levee maintenance, and bank stabilization.	EBMUD and EBMUD's Contractor	EBMUD	During Construction	X	X	X
Hydrology and Water Quality c) and d): Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.3) (A); (1.3) (B) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction		X	X

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EBMUD Practices and Procedures Monitoring and Reporting Plan

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Hydrology and Water Quality e) and f): Potential to create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Or otherwise substantially degrade water quality.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Sections (1.1) (B) (1); (1.3) (A, B and D) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction			X
	EBMUD's Environmental Compliance Manual Section 3 (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction			X
Hydrology and Water Quality i): Potential to expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	**EBMUD's Engineering Standard Practices 512.1 and 550.1** EBMUD uses two primary Engineering Standard Practices for the design of water pipelines in its distribution system to address geologic hazards. Engineering Standard Practice 512.1, Water Main and Services Design Criteria, establishes basic criteria for the design of water pipelines and establishes minimum requirements for pipeline construction materials. Engineering Standard Practice 550.1, Seismic Design Requirements, addresses seismic design of the pipelines to withstand seismic hazards including fault rupture, ground shaking, liquefaction-related phenomena, landslides, seiches and tsunamis and requires that EBMUD establish project-specific seismic design criteria for pipelines with a diameter of greater than 12 inches, such as the water mains that would be installed under the proposed project.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction			X
	EBMUD's Reservoir Design Guide The EBMUD Reservoir Design Guide details design guidelines that apply to the design and construction of bolted-steel tanks. Section 4.2.1, Codes and Design Standards, of the Reservoir Design Guide lists the building codes and design references to be used during construction of bolted-steel tanks to ensure compliance with current engineering practice and standards.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction			X
Noise							
Noise a) Potential for exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**EBMUD's Standard Construction Specification 01 14 00, Work Restrictions** 1.4 Work Hours A. Work or activity of any kind shall be limited to the hours from 7:00 a.m. to 6:00 p.m. Monday through Friday. D. Truck operations (haul trucks and concrete delivery trucks) shall be limited to the daytime hours 9:00 a.m. and 4:00 p.m. 1.8 Construction Noise A. Noise-generating activities greater than 90 dBA (impact construction such as concrete breaking, concrete crushing, tree grinding, etc.) shall be limited to the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Noise b): Potential for exposure of persons or generation of excessive groundborne vibration or groundborne noise levels.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 3.5 Vibration Control A. Limit surface vibration to no more than 0.5 in/sec PPV, measured at the nearest residence or other sensitive structure. See Section 01 14 00. B. Upon homeowner request, and with homeowner permission, the District will conduct preconstruction surveys of homes, sensitive structures and other areas of concern within 15 feet of continuous vibration-	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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	generating activities (i.e. vibratory compaction). Any new cracks or other changes in structures will be compared to preconstruction conditions and a determination made as to whether the proposed project could have caused such damage. In the event that the project is demonstrated to have caused the damage, the District will have the damage repaired to the pre-existing condition.						
	3.6 Noise Control A. Comply with sound control and noise level rules, regulations and ordinances as required herein and in the CEQA documents which apply to any work performed pursuant to the contract. B. Contractor is responsible for taking appropriate measures, including muffling of equipment, selecting quieter equipment, erecting noise barriers, modifying work operations, and other measures as needed to bring construction noise into compliance. C. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler. D. Best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks, as necessary. E. Truck operations (haul trucks and concrete delivery trucks) will be limited to the daytime hours specified in Section 01 14 00. F. Stationary noise sources (e.g., chippers, grinders, compressors) shall be located as far from sensitive receptors as possible. If they must be located near receptors, adequate muffling (with enclosures) shall be used. Enclosure opening or venting shall face away from sensitive receptors. G. Material stockpiles as well as maintenance/equipment staging and parking areas (all on-site) shall be located as far as practicable from residential receptors. H. If impact equipment (e.g., jack hammers, pavement breakers, rock drills etc.) is used during project construction, Contractor is responsible for taking appropriate measures, including but not limited to the following: 1. Hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dB). External jackets on the tools themselves shall be used, where feasible, which could achieve a reduction of 5 dB. Quieter procedures, such as drilling rather than impact equipment, will be used whenever feasible. It is the Contractor's responsibility to implement any mitigations necessary to meet applicable noise requirements. 2. Impact construction including jackhammers, hydraulic backhoe, concrete crushing/recycling activities, vibratory pile drivers shall be limited to the day time hours specified in Section 01 14 00. 3. Erect temporary noise barriers or noise control blankets around the construction site, particularly along areas adjacent to residential buildings. 4. Utilize noise control blankets around the major noise sources to reduce noise emission from the site. 5. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example.						

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	6. Limit the noisiest phases of construction to 10 work days at a time, where feasible. 7. Notify neighbors/occupants within 300 feet of project construction at least thirty days in advance of extreme noise generating activities about the estimated duration of the activity. 8. Noise Monitoring shall be conducted periodically during noise generating activities. Monitoring shall be conducted using a precision sound-level meter that is in conformance with the American National Standards Institute (ANSI) Standard S1.4, Specification for Sound Level Meters. Monitoring results shall be submitted weekly to the Engineer.						
	EBMUD's Standard Construction Specification 01 14 00 Work Restrictions 1.4 Work Hours A. Work or activity of any kind shall be limited to the hours from 7:00 a.m. to 6:00 p.m. Monday through Friday. D. Truck operations (haul trucks and concrete delivery trucks) shall be limited to the daytime hours 9:00 a.m. and 4:00 p.m. 1.8 Construction Noise A. Noise-generating activities greater than 90 dBA (impact construction such as concrete breaking, concrete crushing, tree grinding, etc.) shall be limited to the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction		X	X
Noise d): Potential for substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** Section (3.6) (A-I) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction		X	X
Transportation/Traffic							
Transportation/Traffic a): Potential to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit.	**EBMUD's Standard Construction Specification 01 14 00 Work Restrictions** 1.4 Work Hours A. Work or activity of any kind shall be limited to the hours from 7:00 a.m. to 6:00 p.m. Monday through Friday. D. Truck operations (haul trucks and concrete delivery trucks) shall be limited to the daytime hours 9:00 a.m. and 4:00 p.m. 1.8 Construction Noise A. Noise-generating activities greater than 90 dBA (impact construction such as concrete breaking, concrete crushing, tree grinding, etc.) shall be limited to the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

[1] In EBMUD Standard Specifications, "District" = EBMUD; "Engineer" = EBMUD Engineer; "Contractor" = EBMUD Contractor; "Work" = Scope of Work for the Project

Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation 1.2 Submittals A. Submit at least 15 days prior to work a detailed traffic control plan, that is approved by all agencies having jurisdiction and that conforms to all requirements of these specifications. Traffic Control Plan shall include: 1. Circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. 2. A description of emergency response vehicle access. If the road or area is completely blocked, preventing access by an emergency responder, a contingency plan must be included. 3. Procedures, to the extent feasible, to schedule construction of project elements to minimize overlapping construction phases that require truck hauling. 4. Designated Contractor staging areas on or adjacent to the worksite for storage of all equipment and materials, in such a manner to minimize obstruction to traffic. 5. Locations for parking by construction workers.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Transportation/Traffic b): Potential to conflict with an applicable congestions management program, including but not limited to level of service demands and travel demand measures, or other standards established by the county congestion management agency for designated roads and or highways.	**EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation** Section (1.2) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
	EBMUD's Standard Construction Specification 01 14 00, Work Restrictions Section (1.4) (Details as previously listed)	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X
Transportation/Traffic d): Potential to substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**EBMUD's Standard Construction Specification 00 31 21.13, Site Survey Information** 1.2 Site Survey Audio-Video Recording Requirements A. Pre-Construction Survey: The Contractor shall, in the presence of the Engineer, perform a Pre-Construction Site Survey audio-video recording of the complete project alignment and all access and haul routes to be utilized during construction. The survey shall fully document the conditions of pavements and public and private improvements within the limits of work. Prior to commencement of the Pre-Construction Survey recording, the Contractor shall notify the Engineer in writing within 48-hours of the recording. The District may provide a designated representative to accompany and observe all audio-video recording operations. Audio-video recording completed without a District Representative present will be unacceptable unless specifically authorized by the District. B. The format of the site survey shall be a digital audio-video file in mp4, avi, or mpg with narrative, supplemented with photographs and field notes as appropriate. C. Provide a copy of the pre-construction survey to the District for review and comment. D. The Contractor shall employ a qualified videographer, experienced in taking properly documented and annotated video to take a Pre-Construction recording of the entire site including the areas of adjacent properties and shall be made within 30-days of Work beginning. E. The Contractor shall submit a quality audio-video recording documenting Pre-Construction field conditions for the entire project. When the Work includes construction of water, wastewater, recycle,	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Applicable Sites: Existing Dos Osos Reservoir Site	Applicable Sites: Proposed Dual Reservoirs Site
	or other lines in the vicinity of any street or road, the Contractor shall take digital audio-video recordings of existing conditions along both sides of the street or road. The finalized pre-construction audio-video recording shall be submitted to the District and accepted prior to commencing any Work or using any Contractor laydown areas. F. Post-Construction Survey: The Contractor shall, in the presence of the Engineer, perform a Post-Construction Site Survey audio-video recording of the same areas recorded in the Pre-Construction Survey. The Engineer will review post-construction survey findings with the Contractor and develop a complete listing of project site restoration requirements to be accomplished by the Contractor. Prior to commencement of Post-Construction Survey recording, the Contractor shall notify the Engineer in writing within 48-hours of the recording. The District may provide a designated representative to accompany and observe all audio-video recording operations. Audio-video recording completed without a District Representative present will be unacceptable unless specifically authorized by the District. The Contractor shall be responsible for repairing any damage or defect not documented as existing prior to construction.						
Transportation/Traffic e): Potential to Result in inadequate emergency access.	**EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation** 1.2 Submittals A. Submit at least 15 days prior to work a detailed traffic control plan, that is approved by all agencies having jurisdiction and that conforms to all requirements of these specifications. Traffic Control Plan shall include: 1. Circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. 2. A description of emergency response vehicle access. If the road or area is completely blocked, preventing access by an emergency responder, a contingency plan must be included. 3. Procedures, to the extent feasible, to schedule construction of project elements to minimize overlapping construction phases that require truck hauling. 4. Designated Contractor staging areas on or adjacent to the worksite for storage of all equipment and materials, in such a manner to minimize obstruction to traffic. 5. Locations for parking by construction workers. 3.1 General (Execution) A. Except where public roads have been approved for closure, traffic shall be permitted to pass through designated traffic lanes with as little inconvenience and delay as possible. B. Install temporary traffic markings where required to direct the flow of traffic. Maintain the traffic markings for the duration of need and remove by abrasive blasting when no longer required. C. Convenient access to driveways and buildings in the vicinity of work shall be maintained as much as possible. Temporary approaches to, and crossing of, intersecting traffic lanes shall be provided and kept in good condition. D. When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic. E. Provide temporary signs as required by the traffic control plan and remove signs when no longer required.	EBMUD and EBMUD's Contractor	EBMUD	Prior to and During Construction	X	X	X

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Impact Area	EBMUD Practices and Procedures[1]	Responsible for Implementation	Responsible for Monitoring and/or Enforcement	Timing of Implementation	Applicable Sites: Existing Dos Osos PP Site	Existing Dos Osos Reservoir Site	Proposed Dual Reservoirs Site
	F. Haul routes for **each** construction phase shall be provided to all trucks serving the site during the construction period. G. For complete road closures, immediate emergency access to be provided if needed to emergency response vehicles. H. A minimum of twelve (12) foot travel lanes must be maintained unless otherwise approved.						
Utilities and Service Systems							
Utilities and Service Systems f): Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** 1.3 (C) Construction and Demolition Waste Disposal Plan: 1. Prepare a Construction and Demolition Waste Disposal Plan and submit a copy of the plan for the Engineer's acceptance prior to disposing of any material (except for water wastes which shall be addressed in the Water Control and Disposal Plan). a. The plan shall identify how the Contractor will remove, handle, transport, and dispose of all materials required to be removed under this contract in a safe, appropriate, and lawful manner in compliance with all applicable regulations of local, state, and federal agencies having jurisdiction over the disposal of removed materials. b. The Contractor shall procure the necessary permits required by the local, state, and federal agencies having jurisdiction over the handling, transportation, and disposal of construction and demolition waste. c. Include a list of reuse facilities, recycling facilities and processing facilities that will be receiving recovered materials. d. Identify materials that are not recyclable or not recovered which will be disposed of in a landfill (or other means acceptable by the State of California and local ordinance and regulations). g. List the permitted landfill, or other permitted disposal facilities that will be accepting the disposed waste materials. h. Identify each type of waste material to be reused, recycled or disposed of and estimate the amount, by weight. i. Plan shall include the sampling and analytical program for characterization of any waste material, as needed, prior to reuse, recycle or disposal. 2. Materials or wastes shall only be disposed of at locations approved of by the District. 3. Submit permission to reuse, recycle, reclaim, or dispose of material from reuse, recycling, reclamation, or disposal site owner along with any other information needed by the District to evaluate the acceptability of the proposed reuse, recycling, or disposal site and obtain acceptance of the Engineer prior to removing any material from the project site. 4. All information pertinent to the characterization of the material or waste shall be disclosed to the District and the reuse, recycling, reclamation, or disposal facility. Submit copies of any profile forms and/or correspondence between the Contractor and the reuse, recycling, reclamation, or disposal facility. 5. Submit name and Environmental Laboratory Accreditation Program Certificate number of laboratory that will analyze samples for suspected hazardous substances. Include statement of laboratory's certified testing areas and analyses that laboratory is qualified to perform. Submit prior to any laboratory testing.	EBMUD and EBMUD's Contractor	EBMUD	**Prior to and During Construction**	**X**	**X**	**X**

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EBMUD

AGENDA NO. 12.
MEETING DATE October 10, 2017

TITLE **ADOPT A CUSTOMER ASSISTANCE POLICY**

☐ **MOTION** ☒ **RESOLUTION** ☐ **ORDINANCE**

RECOMMENDED ACTION

Adopt a Customer Assistance Policy to support the District's efforts in assisting customers, including low-income customers.

BACKGROUND

New Policy: Customer Assistance

At the direction of the Board of Directors, staff developed a draft policy for the District's ongoing efforts and commitment to assist its low-income customers with their water and wastewater bills. This proposed policy provides a framework for the District's process in assisting low-income customers while statewide water affordability initiatives are further developed. Staff introduced the proposed policy at the September 12, 2017 Planning Committee and at the September 26, 2017 Finance/Administration Committee meeting for review and comment. The proposed policy incorporates comments received from the Committees for the Board's consideration and adoption (Attachment 1).

DISCUSSION

New Policy: Customer Assistance

Water affordability for California's low-income households is an increasing concern at both the state and local levels. The District's mission is to deliver accessible, safe, clean, and affordable water service to its customers, including assistance to low-income households within the limitations and authority permitted by law. For decades, the District has provided assistance and continues to commit to assisting customers who are unable to pay their bills in full to maintain service.

The policy codifies current processes to use as guidelines when determining future enhancements for customer support. Staff proposed the policy to the Planning Committee on September 12, 2017 for review and comment. The Committee's suggested revisions included incorporating references to California Water Code section 106.3 and strengthening language on the development of key performance indicators. Staff made additional modifications to the policy to incorporate language from the Municipal Utility District

Funds Available: N/A	Budget Code: N/A	
DEPARTMENT SUBMITTING Customer & Community Svcs.	DEPARTMENT MANAGER or DIRECTOR Sherri Hong Sherri A. Hong	APPROVED Jennifer R. Capitman General Manager

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

Act regarding customer payment plan responsibilities, along with other minor clarification edits as reflected in (Attachment 2).

Subsequently, the draft policy was presented at the September 26, 2017 Finance/Administration Committee for review and comment. The Committee did not have any changes and unanimously recommended the policy proceed to the full Board for consideration and adoption on October 10, 2017. This policy may be updated in the future to incorporate additional actions and/or to reflect any requirements of the state's final Low-Income Rate Assistance program.

This action supports the District's Long-Term Financial Stability Strategic Plan goal to maintain fair and reasonable water and wastewater rates.

SUSTAINABILITY

Economic

Adoption of this policy is not expected to have additional fiscal impacts on the District. This policy will help guide District efforts to develop low-income customer assistance.

Social

This policy helps further advance the District's commitment to social sustainability and acknowledges that all of its customers deserve access to reliable, high quality drinking water regardless of income.

ALTERNATIVES

Do not adopt the policy. This alternative is not recommended. These policy principles will help guide future enhancements to the District's customer assistance program.

Modify the policy. The Board has discretion to further modify the policy.

Attachments

Attachment 1

EBMUD

Policy 1.14

EFFECTIVE 10 OCT 17

SUPERSEDES NEW

CUSTOMER ASSISTANCE POLICY

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

Provide reliable, high-quality drinking water and wastewater services for all its customers. To this end, the District provides numerous protections and programs to help customers maintain service and avoid service termination. In 1986, the District pursued a legislative amendment to the Municipal Utility District (MUD) Act to expressly provide the District with the authority to assist its low-income customers. The District's Customer Assistance Program (CAP) has been in place since 1987, and in its first 30 years provided over $41 million in customer assistance.

The District recognizes the state's water policy actions ~~on the human right to water and accessibility to high quality drinking water regardless of income~~ to ensure that every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitation purposes as provided in California Water Code Section 106.3 as enacted by Assembly Bill 685 (Eng, 2012). The District understands that affordability of water and wastewater services can be challenging for low-income customers and is dedicated to working with customers to provide temporary assistance to those who are unable to pay their bills in full. Consistent with these objectives the District commits to the guidelines contained in this policy.

Guidelines

1. Proactively identify and implement a wide-range of services to assist qualifying low-income customers consistent with the District's mission, within its authority under the MUD Act, and in accordance with applicable federal and state laws and regulations including Water Code section 106.3.
2. Provide fair and reasonable water and wastewater rates and charges that are developed and structured in conformance with applicable laws including the MUD Act and Proposition 218 (California Constitution article XIII D, section 6) and consistent with best management practices.
3. Enter into contracts, and cooperate with and accept cooperation from any state or local public agency or private nonprofit organization in the implementation of low-income assistance programs.
4. Provide, promote, and finance a CAP to temporarily reduce by 50 percent the monthly water service and flow charges, (up to a maximum of 1,050 gallons per person per month), and reduce by 35 percent wastewater service and flow charges for eligible residential low-income customers and homeless shelters.
5. Use unrestricted, non-rate revenues to fund the CAP and other programs to assist low-income customers, in full compliance with Proposition 218 and Proposition 26.
6. Proactively inform customers of CAP benefits, offer multi-lingual resources, distribute applications to encourage enrollment and expand participation, ~~and~~ assist customers with the application process, and facilitate enrollment of our low-income customers.
7. Offer reasonable payment plans and other forms of assistance to help eligible low-income customers maintain water service and avoid termination of water service.

8. Continue ~~P~~provid~~e~~ing water service to any customer who sets up and complies with a District approved payment plan, makes regular required payments toward the unpaid balance, and keeps their account current as charges accrue in each subsequent billing period, including customers who have demonstrated medical necessity for ongoing water service.
9. Offer water use efficiency services (e.g., free water conserving devices, rebates, and water audits) to reduce water use and lower water bills for CAP-eligible customers.
10. Actively ~~E~~engage in local and state efforts to ~~explore and, where feasible~~ ensure the human right to water as articulated in Water Code Section 106.3 and to~~,~~ develop other means to support affordability of water and wastewater services.
11. ~~Periodically review~~ Develop key performance indicators to monitor the effectiveness of ~~the programs and recommend modifications when necessary~~ this policy which captures the goals of maintaining water service, increasing percentage of eligible customers enrolled, etc.

Authority

Resolution No. XXXXX-XX, Date
California Public Utilities Code Sections 12811.2 and 12823

References

Municipal Utility District Act of the State of California
Policy 4.13 - Establishing Water and Wastewater Rates
Assembly Bill 401 - ~~State~~ Low-Income Water Rate Assistance Program
~~Senate Bill 623 - State Safe and Affordable Drinking Water Fund~~
Assembly Bill 685 - State Water Policy

Attachment 2

EBMUD

Policy 1.14

EFFECTIVE 10 OCT 17

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The District recognizes the state's water policy actions to ensure that every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitation purposes as provided in California Water Code Section 106.3 as enacted by Assembly Bill 685 (Eng, 2012). The District understands that affordability of water and wastewater services can be challenging for low-income customers and is dedicated to working with customers to provide temporary assistance to those who are unable to pay their bills in full. Consistent with these objectives the District commits to the guidelines contained in this policy.

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1. Proactively identify and implement a wide-range of services to assist qualifying low-income customers consistent with the District's mission, within its authority under the MUD Act, and in accordance with applicable federal and state laws and regulations including Water Code section 106.3.
2. Provide fair and reasonable water and wastewater rates and charges that are developed and structured in conformance with applicable laws including the MUD Act and Proposition 218 (California Constitution article XIII D, section 6) and consistent with best management practices.
3. Enter into contracts, and cooperate with and accept cooperation from any state or local public agency or private nonprofit organization in the implementation of low-income assistance programs.
4. Provide, promote, and finance a CAP to temporarily reduce by 50 percent the monthly water service and flow charges, (up to a maximum of 1,050 gallons per person per month), and reduce by 35 percent wastewater service and flow charges for eligible residential low-income customers and homeless shelters.
5. Use unrestricted, non-rate revenues to fund the CAP and other programs to assist low-income customers, in full compliance with Proposition 218 and Proposition 26.
6. Proactively inform customers of CAP benefits, offer multi-lingual resources, distribute applications to encourage enrollment and expand participation, assist customers with the application process, and facilitate enrollment of our low-income customers.
7. Offer reasonable payment plans and other forms of assistance to help eligible low-income customers maintain water service and avoid termination of water service.

8. Continue providing water service to any customer who sets up and complies with a District approved payment plan, makes regular required payments toward the unpaid balance, and keeps their account current as charges accrue in each subsequent billing period, including customers who have demonstrated medical necessity for ongoing water service.
9. Offer water use efficiency services (e.g., free water conserving devices, rebates, and water audits) to reduce water use and lower water bills for CAP-eligible customers.
10. Actively engage in local and state efforts to ensure the human right to water as articulated in Water Code Section 106.3 and to develop other means to support affordability of water and wastewater services.
11. Develop key performance indicators to monitor the effectiveness of this policy which captures the goals of maintaining water service, increasing percentage of eligible customers enrolled, etc.

Authority

Resolution No. XXXXX-XX, Date
California Public Utilities Code Sections 12811.2 and 12823

References

Municipal Utility District Act of the State of California
Policy 4.13 - Establishing Water and Wastewater Rates
Assembly Bill 401 - Low-Income Water Rate Assistance Program
Assembly Bill 685 - State Water Policy

Draft Prepared By

Office of General Counsel

RESOLUTION NO._____

ADOPTING NEW POLICY 1.14, CUSTOMER ASSISTANCE POLICY

Introduced by Director ; Seconded by Director

WHEREAS, it is the desire and intention of the Board of Directors to adopt New Policy 1.14, entitled "Customer Assistance Policy;"

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the East Bay Municipal Utility District that New Policy 1.14, attached hereto as Exhibit A, is hereby adopted.

ADOPTED this 10th day of October, 2017 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
President

ATTEST:

_____
Secretary

APPROVED AS TO FORM AND PROCEDURE:

_____
General Counsel

EBMUD

Policy 1.14

EFFECTIVE 10 OCT 17

SUPERSEDES NEW

CUSTOMER ASSISTANCE POLICY

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

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The District recognizes the state's water policy actions to ensure that every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitation purposes as provided in California Water Code Section 106.3 as enacted by Assembly Bill 685 (Eng, 2012). The District understands that affordability of water and wastewater services can be challenging for low-income customers and is dedicated to working with customers to provide temporary assistance to those who are unable to pay their bills in full. Consistent with these objectives the District commits to the guidelines contained in this policy.

Guidelines

1. Proactively identify and implement a wide-range of services to assist qualifying low-income customers consistent with the District's mission, within its authority under the MUD Act, and in accordance with applicable federal and state laws and regulations including Water Code section 106.3.
2. Provide fair and reasonable water and wastewater rates and charges that are developed and structured in conformance with applicable laws including the MUD Act and Proposition 218 (California Constitution article XIII D, section 6) and consistent with best management practices.
3. Enter into contracts, and cooperate with and accept cooperation from any state or local public agency or private nonprofit organization in the implementation of low-income assistance programs.
4. Provide, promote, and finance a CAP to temporarily reduce by 50 percent the monthly water service and flow charges, (up to a maximum of 1,050 gallons per person per month), and reduce by 35 percent wastewater service and flow charges for eligible residential low-income customers and homeless shelters.
5. Use unrestricted, non-rate revenues to fund the CAP and other programs to assist low-income customers, in full compliance with Proposition 218 and Proposition 26.
6. Proactively inform customers of CAP benefits, offer multi-lingual resources, distribute applications to encourage enrollment and expand participation, assist customers with the application process, and facilitate enrollment of our low-income customers.
7. Offer reasonable payment plans and other forms of assistance to help eligible low-income customers maintain water service and avoid termination of water service.

Exhibit A

8. Continue providing water service to any customer who sets up and complies with a District approved payment plan, makes regular required payments toward the unpaid balance, and keeps their account current as charges accrue in each subsequent billing period, including customers who have demonstrated medical necessity for ongoing water service.
9. Offer water use efficiency services (e.g., free water conserving devices, rebates, and water audits) to reduce water use and lower water bills for CAP-eligible customers.
10. Actively engage in local and state efforts to ensure the human right to water as articulated in Water Code Section 106.3 and to develop other means to support affordability of water and wastewater services.
11. Develop key performance indicators to monitor the effectiveness of this policy which captures the goals of maintaining water service, increasing percentage of eligible customers enrolled, etc.

Authority

Resolution No. XXXXX-XX, Date
California Public Utilities Code Sections 12811.2 and 12823

References

Municipal Utility District Act of the State of California
Policy 4.13 - Establishing Water and Wastewater Rates
Assembly Bill 401 - Low-Income Water Rate Assistance Program
Assembly Bill 685 - State Water Policy

ITEM 13

LEGISLATIVE UPDATE

WILL BE PROVIDED
AS AN ORAL REPORT

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 5, 2017

MEMO TO: Board of Directors

FROM: Alexander R. Coate, General Manager ARC

SUBJECT: Monthly Report – September 2017

HIGHLIGHTS

On September 5, the U.S. Bureau of Reclamation notified the District that it had been selected for a $400,000 WaterSMART grant for a Bay Area Regional Reliability (BARR) project. The District, acting on behalf of the BARR partnership, applied for the funding to support development of a Regional Water Market Program. The project, which was recommended by the recent BARR Drought Contingency Plan, will develop the framework for supporting future Bay Area water transfers and exchanges.

During the week of September 11, staff from the City of Alameda (Alameda), the District, and the State's Division of Drinking Water (DDW) jointly responded to a water quality incident within Alameda Point, a separate legacy water system owned by Alameda. The problem was ultimately attributed to a cross-connection between the potable water system and an irrigation well. Alameda issued various public notices restricting water use, including a "Do Not Drink" notice that was in place for about 72 hours. There have been no water quality complaints since the District flushed the system and isolated the irrigation well. Prevention and correction of cross-connections within this water system are the responsibility of Alameda, pursuant to the past and current water service agreements. As a service provider, District staff will monitor communication between DDW and Alameda, which may include requirements for Alameda to enhance its cross-connection control program.

WATER SUPPLY

Precipitation. The East Bay precipitation for September was 0.03 inches (10% of average) and the season total was 0.03 inches (8% of average). The Mokelumne precipitation for September was 1.68 inches (215% of average) and the season total is 1.85 inches (143% of average).

Water Releases

Camanche Reservoir. The average rate of Camanche release for September was 684 cfs (487 cfs generation, 180 cfs sluice, and 17 cfs through the hatchery), and the average flow below Woodbridge Dam was 344 cfs, both in accordance with the Joint Settlement Agreement "Normal & Above" criteria.

East Bay Reservoirs. There were no East Bay reservoir releases in September.

Water Storage

Mokelumne reservoirs storage is 115% of average. As of September 30, 2017, Pardee was at 560.9 feet or 100% of average, and the Camanche was at 223.7 feet or 125% of average. Combined Pardee and Camanche reservoir storage was 522,000 acre-feet compared to 472,000 acre-feet last year.

East Bay reservoirs storage is 104% of average. As of September 30, 2017, USL was at 440.5 feet or 97% of average, San Pablo was at 308.8 feet or 127% of average, and Briones was at 558.5 feet or 94% of average. Total terminal reservoir storage was 121,000 acre-feet compared to 136,000 acre-feet last year.

Mokelumne Aqueducts and Raw Water Pumping Plants. The average rate of Mokelumne Aqueduct draft for September 2017 was 178 MGD. From September 1 to shut-off on September 4, Moraga Raw Water Pumping Plant (RWPP) pumped 203 AF to USL reservoir at an average rate of 26 MGD. Walnut Creek and Briones Raw Water Pumping Plants remained out of service for the month.

Water Production. Average rate of gross water production for September:

	September 2017	September 2016	September 2013	Average of FY 2005-2007
East of Hills	66 MGD	61 MGD	74 MGD	87 MGD
West of Hills	135 MGD	127 MGD	144 MGD	174 MGD
Total	201 MGD	188 MGD	218 MGD	261 MGD
Max Day Production	232 MGD (9/1/2017)	211 MGD (9/26/2016)	240 MGD (9/6/2013)	

Note: Data are all from preliminary daily operational reports and are subject to revision

WATER QUALITY AND ENVIRONMENTAL PROTECTION

On September 6, the District notified the San Francisco Regional Water Quality Control Board (RWQCB) that a chlorine residual exceedance was measured at the Orinda Water Treatment Plant EFF-003 effluent monitoring location. Sodium bisulfite is added to settling pond influent and effluent as a dechlorination agent. The exceedance occurred because equipment that controls sodium bisulfite levels malfunctioned and approximately 230,000 gallons of water containing 0.22 mg/L chlorine residual was discharged to San Pablo Creek. Staff conducted a visual receiving water inspection of San Pablo Creek downstream of EFF-003 and did not observe any dead fish or other indicators of environmental harm. Staff serviced and

recalibrated the analyzers and returned it to service. Staff has increased the regular inspection and servicing on the analyzers from monthly to weekly to increase reliability. Staff is also completing a root cause analysis for this incident.

Habitat restoration project completed on lower Mokelumne River. September 11-14, staff worked with contractors to complete a flood plain restoration project which will improve fish spawning and rearing habitat below Camanche Dam.

On September 25, pulse flows were initiated from Camanche Dam to improve the attraction/return of Chinook salmon to the Mokelumne River and help reduce straying to other systems. The series of pulses were coordinated to start prior to pulses on the Stanislaus River, in order to reduce straying of Mokelumne River salmon to the Stanislaus. Additionally, the pulses coincided with Delta Cross Channel closures (initiated September 18), which will reduce straying to the Sacramento and American Rivers.

All authorized discharges from the Main Wastewater Treatment Plant (MWWTP) were in compliance with the permit limits for September. This is the 217th consecutive month that the MWWTP experienced no exceedances.

The District received two odor reports in September from the public. Staff investigated the complaints and determined that the MWWTP was a potential source for one of the complaints. Chemical dosing at the influent pump station was increased for a period to mitigate the odors. The second odor complaint was attributed to debris in the collection system in the area. Closed-circuit television (CCTV) and smoke testing work done in the area related to the Consent Decree has identified the pipes in this area to be in poor condition and need of repair. The poor condition contributes to build up of debris in the system. Staff will be reporting on their condition assessment findings, as well as on the frequent odor reports related to the collection system to the City of Oakland.

INFRASTRUCTURE INVESTMENT

On September 1, staff completed the annual local dam safety inspections with a representative from the California Division of Safety of Dams (DSOD). The inspections confirmed that our 20 local dams are safe for continued operations. The inspections are performed annually in conjunction with the DSOD to ensure that there are no safety issues and that the dams are operated in accordance with the State's licensing requirements.

On September 11, start-up testing began on the new Almond Pumping Plant. The new plant will increase the capacity and reliability of water delivery to our customers in the Castro Valley area and reduce noise concerns.

On September 15, the District hosted a meeting in coordination with the Association of Bay Area Governments regarding the Bay Area Utilities Regional Resilience Assessment Project (RRAP). Attendees at the meeting included representatives from the Department of Homeland

Security (DHS), Office of Infrastructure Protection, the California Office of Emergency Services, and other water agencies, to discuss the objectives, scope, methodology, and benefits of the Bay Area Utilities RRAP. This DHS-funded study, which will include an in-depth assessment of the District's water distribution system, will characterize the region's water, wastewater, and supporting power systems and their dependencies and interdependencies. It will also assess system hazard vulnerabilities, identify expected system reliability related to specific hazards, and identify projects to mitigate the risks identified. The District is sharing data on its water distribution system and DHS is reaching out to PG&E and other water agencies to collect data in support of this study.

In September, a joint agreement with the City of Oakland was reached to complete paving of the Cleveland Heights area in Oakland. Staff paved 1,800 tons of asphalt the last week of September.

At the end of September, over 3,500 feet of 8-inch steel pipe was installed in the South Alignment of the MacArthur/Davenport Pipeline Replacement Project in Oakland. This segment was completed ahead of schedule and the North Alignment will begin early October replacing another 4,000 feet of pipe.

Camanche South Shore Marina parking lot gets a face lift. The parking lot was first installed in the early 1990s and provides 75 parking spaces for boating guests and vehicles with boat trailers. Approximately 27,000 square feet of asphalt was removed, the earth below compacted, and 4"– 8" of asphalt installed. Additionally, 120,000 square feet of asphalt surface was slurry sealed.

Comprehensive inspection and dam safety assessment conducted for Pardee and Camanche Dams. During the week of September 18, per regulatory requirements, an independent consultant, along with staff from Federal Energy Regulatory Commission (FERC) and the District, inspected Pardee Dam, South Spillway, Jackson Valley Spillway, Pardee powerhouse, Camanche Dam and Spillway, all dikes, and the Camanche powerhouse. After the inspection, the consultants, along with District and FERC staff, reviewed probable failure modes for each facility. This assessment has been the most thorough ever completed and included active participation by FERC management. A number of recommendations will come out of this assessment in a report due to FERC in early March 2018. A draft report is expected to be prepared in November 2017.

The construction contract for Pump Station Q Gravity/Force Main Interceptor Upgrade Project under SD-377 was terminated. Due to a combination of unforeseen conditions, including underground utility conflicts and utility relocation delays encountered at all three major work sites, the contract was terminated on August 31. All three sites are adjacent to the Eastshore Freeway frontage road and located at Buchanan Street in Albany, and Page Street and Virginia Street in Berkeley. Terminating the construction contract and rebidding the project provides the least cost impact and risk to the District. Exact contract termination costs are being negotiated

with the contractor. The District will retain materials purchased to date under the contract. The project elements are currently undergoing redesign for bidding in late 2017.

Construction of the Main Wastewater Treatment Plant Culvert Rehabilitation Project was completed under SD-385. This construction contract included grout stabilization of the 200-linear foot culvert that serves as a utility corridor crossing underneath Union Pacific Railroad tracks adjacent to the Main Wastewater Treatment Plant. Three new 6-inch PVC pipes were installed within the culvert for current and future utility service and redundancy.

Moraga Way Pipeline Project Update. On September 16, final paving associated with the replacement of approximately 2,000 feet of 8-inch steel pipe in Orinda was completed. Staff installed 140 tons of asphalt in a nine-hour period. The project required coordination between staff and the City of Orinda due to traffic and community concerns.

Upper Happy Valley Road Project Update. Staff cleared final rounds of water quality testing and placed in service approximately one mile of cured-in-place pipe on Upper Happy Valley Road in Lafayette. The temporary above ground main was disassembled and the site cleaned up on September 7.

Fleet Maintenance East (FME) Upgrade Project Update. The District purchased the FME site in Walnut Creek in 2015 to establish a vehicle maintenance shop on the east side of the Berkeley/Oakland Hills. The four acquired buildings required substantial upgrades to meet operational, regulatory compliance, and worker health and safety requirements. The first phase has been completed, which included upgrading two bays and four offices supporting the repair garage. The second phase is anticipated to start in October/November 2017.

A Notice of Exemption (NOE) was sent to Alameda and Contra Costa Counties in September for Pipeline Infrastructure Renewal projects. The NOE included a detailed work plan of forecasted design and construction work of deteriorated pipelines in the respective counties for fiscal year 2018. Replacing these pipes is necessary because it is more cost effective to replace them than to make frequent repairs. This project qualifies for an exemption because it only replaces or reconstructs existing utility systems and/or facilities with little or no expansion of capacity, pursuant to Section 15302 (c) of the California Environmental Quality Act Guide.

Inline Water Treatment Plant (WTP) Pretreatment Pilot Update. Staff is piloting Actiflo and ozone at the Walnut Creek WTP. This pilot, scheduled for completion in October 2017, builds on previous efforts during the winter of 2016-2017 to test seasonal changes in water quality. One overarching goal of pretreatment is to provide better algae removal to improve the reliability of filtration during all seasons. Pretreatment is expected to reduce trihalomethane (THM) production throughout the distribution system.

Chabot Dam Seismic Upgrade Project Update. The contractor has completed all earth work on the dam face and demolition of the outlet tower. Site restoration and contractor demobilization is expected to be completed by the first week in October. The contractor surveyed a section of the

spillway using ground penetrating radar and results were provided to the District in late September. Staff is preparing a repair plan for implementation in October 2017.

Orinda Water Treatment Plant Reliability and Maintenance Project Update. Progress continues in the sodium hypochlorite room. The contractor completed the double contained chemical piping and the supports for the hypochlorite metering pump vent lines. Chemical sumps and an emergency shower were installed. Hydrostatic testing, functional testing and control system functional testing is underway. Two more filter underdrain replacements were completed bringing the total to 10 of 19.

Sobrante and Upper San Leandro (USL) Water Treatment Plants Ozone Systems Improvement Project Update. At Sobrante and USL, the contractor completed the slabs for the emergency generators and fuel tanks; formed the containment walls of the hydrogen peroxide facility; and installed, tested and encased the ozone gas piping and gaseous oxygen piping. Duct bank excavation work is ongoing at both sites. At USL, the full plant outage work began on September 5. The contractor is installing new slide gates at the influent channel and has demolished the existing ozone generators, power supply units, desiccant dryers, and electrical systems. At Sobrante, the full plant shutdown will begin in November. The contractor is working on liquid oxygen tank foundations and underground hydrogen peroxide piping.

Main Breaks in September totaled 78. The attached table lists the main breaks that were repaired by staff in September, sorted by city and street. The associated map shows the location of the breaks.

CUSTOMER AND COMMUNITY SERVICES

Lead in Schools. In September, outreach letters for lead sampling were sent to all school districts and private schools that had not previously contacted the District. By the end of September, we received 271 requests for lead sampling for K-12 schools (49% of the known schools in the service area). Lead sampling has been completed at 17 schools and another 18 schools are in progress. The majority of the schools that have requested lead sampling are still compiling the site information that is required before sampling can begin. The Board will consider a $1.4 million professional services contract at its October 10 meeting to assist staff with completion of the program.

Central Reservoir Replacement Project Outreach. On September 28, staff held a public meeting in Oakland to present the project and to solicit input and feedback. The District's landscape architectural consultant presented conceptual site planning and landscape plans including potential neighborhood views following construction of the project. Staff responded to community questions and concerns raised and will prepare a detailed FAQs sheet that will address all questions raised and post it on the District's website. Community members were also encouraged to attend the Environmental Impact Report scoping meeting in December 2017 where the preferred landscape concept will be presented. Approximately 30 people attended.

Almond Reservoir Replacement Project Outreach. Staff completed a Notice of Exemption to satisfy the California Environmental Quality Act requirements for the Almond Reservoir Replacement Project in Castro Valley. The District's website was updated to include a project page that provides information about the project and schedule and give the public access to project documents. Post cards were mailed on September 28 to nearby residents informing them of the project and the option to meet and discuss the project.

Media. On September 13, the *East Bay Express* included an insert focused on EBMUD's environmental stewardship and pollution prevention. The paper was distributed throughout Alameda and Contra Costa counties to 40,000.

Social Media. On Nextdoor, staff provided information regarding the safety and reliability of EBMUD dams, paving on Moraga Way in Orinda and updates on the water quality incident at Alameda Point.

The top tweet on Twitter highlighted the report on a dam safety study generating 1,230 impressions. Twitter followers reached 1,928 followers, an increase of 49 followers over last month. The top post on LinkedIn featured the District's participation in a job fair, generating 2,000 impressions. LinkedIn followers reached 3,637, an increase of 41 new followers over last month.

Coastal Cleanup Events. On September 16 staff organized and participated in several cleanup events coinciding with the annual Coastal Cleanup Day and Great Sierra River Cleanup events. In the Mokelumne region, 106 volunteers worked with staff and collected over 2,100 pounds of trash and 1,350 pounds of recycling on the Mokelumne River and District reservoirs from the Middle Bar Bridge above Pardee Reservoir, down to Stillman Magee Park, below Camanche Dam. This was the 26th annual river cleanup coordinated by staff. In the East Bay, approximately 20 volunteers assisted staff in cleaning trash and debris along the shoreline of the Upper San Leandro Reservoir near the Val Vista Staging Area. Several hundred pounds of debris was disposed of or recycled. Also in the East Bay, 35 employees and their families participated in removing trash and debris from the Martin Luther King, Jr. Regional Shoreline in Oakland. This location was selected due to its proximity to the District's Oakport facilities.

On September 13, staff conducted three two-hour presentations on the District's water system to Richmond Fire Department (RFD) firefighters at the RFD Training Center. Twenty-seven firefighters learned about the District's water supply, water treatment process, water distribution pipelines and appurtenances, and emergency preparedness and response plans. Staff provided responses to in-depth questions from the firefighters.

On September 14, staff hosted a tour of the Richmond Advanced Recycled Expansion (RARE) plant for the West County Wastewater District (WCWD) Board and management staff. Two WCWD Board members and their interim General Manager toured the plant to better understand how effluent from WCWD's wastewater treatment plant is further treated at the District's RARE facility to provide recycled water for use in the boilers at the Chevron refinery.

On September 27, staff led the second Lamorinda coordination meeting with the cities of Lafayette, Orinda, Town of Moraga, and the various utilities that support these communities. The meeting focused on overall project coordination efforts between the various Lamorinda agencies. Staff presented an ArcGIS file that includes all upcoming paving and pipeline replacement projects in the Lamorinda area. Presenting these projects in the same spatial platform allows the various agencies to identify potential project conflicts and begin early coordination efforts to mitigate any issues. Staff plans to hold these meetings three times a year.

The District received the California Association of Sanitation Agencies "2017 Award of Excellence for Outstanding Capital Project Large Agency" for the design of the 3rd Street Sewer Interceptor Rehabilitation Project. The design implemented several innovative approaches for the rehabilitation of a section of the 105-inch diameter South Interceptor. The design innovations reduced project costs, schedule restrictions, and community impacts by utilizing a temporary flow control gate to shift and extend construction work hours, and a chemical feed system to reduce odor control costs. Previously, this work was performed at night, which limited work hours, impacted residents in the area, and resulted in significantly higher costs. This award will be presented at the October 10 Board meeting.

Two fatalities at Mokelumne recreation areas. On September 3, staff responded to a drowning incident of a 53-year-old male at Camanche North Shore Day Use Area which resulted in a fatality. On September 17, staff responded to a drowning incident of a 43-year-old male at the Mokelumne River Day Use Area which resulted in a fatality.

Carr Ranch public opening preparation. During September, staff worked with John Muir Land Trust to identify and improve fire/maintenance roads that will be opened to the public. These trails will connect to existing trails in the watershed.

Water Theft Incidents. During the month of September the District encountered legal water theft incidents. The number, type of theft incident and city where the incident occurred are provided in the table below:

Number	Type	City
3	Consumption	Oakland
2	Broken Lock	Oakland
1	Straight Connection	Oakland
2	Consumption	Richmond

Contract Equity

Staff participated in the following business community events:

- September 13 - Oakland Chamber of Commerce, Small Business & Nonprofit Fair Oakland, CA – 75 attendees

- September 13 - Associated General Contractors (AGC's), AGC's Public Works Night, Pleasanton, CA – 75 attendees
- September 21 - Asian American Contractors Association Event, San Francisco, CA – 100 attended
- September 22 - California State Tribal Liaisons, 50th California Native American Day, Sacramento, CA - 600 attendees
- September 25 -Walnut Creek Chamber of Commerce, Business Trade Fair 2017, Walnut Creek, CA - 40 attendees

Water Conservation

On September 5, staff was interviewed by AM 1010 KIQI radio station for the Oakland Athletics Spanish broadcast. Staff highlighted the Take a Drink From the Sink campaign, water quality, water supplies, the Customer Assistance Program, and water conservation rebates and services.

On September 6, staff presented at the Contra Costa County Master Gardeners monthly speaker series in Walnut Creek. The presentation included a water supply update and an overview of the District's Landscape Rebate Program and other key water conservation initiatives. Approximately 40 people were in attendance.

On September 9 and 10, staff participated in the 45th Annual Castro Valley Fall Festival in Castro Valley. Information was provided on water conversation services, rebate programs, and the Customer Assistance Program. To encourage drinking tap water, booth visitors had an opportunity to win a Take a Drink From the Sink water bottle. About 60,000 people attended the festival with several hundred stopping by the District's booth.

On September 11, staff attended the State Landscape Advisory Group Meeting hosted by the Department of Water Resources in Fresno, CA. The meeting focused on proposed revisions to the State Model Water Efficient Landscape Ordinance (MWELO) currently undergoing its triennial review. Staff recommendations included simplifications to the water budget calculator and to form a subcommittee to work in partnership with the State Water Resources Control Board to address conflicts between MWELO irrigation requirements and the bio-retention basins requirements of the Municipal Regional Stormwater Permit. The meeting was attended by approximately 30 members.

On September 13-14, staff participated in the California Water Efficiency Partnership (CalWEP) Strategic Planning Workshop hosted by the District. The workshop focused on the 2018-2020 Strategic Plan for the organization formerly known as the California Urban Water Conservation Council. Key topics included a potential formal merger with the national Alliance for Water Efficiency as a state chapter; how the organization can assist water agency members in meeting their local conservation goals and targets under the State Long-Term Conservation Framework; sustainable landscape market transformation policies/programs to improve outdoor water use efficiency; and water use efficiency research. Twenty-five people attended the

workshop including public and private retail and wholesale water agencies, and State agency staff.

On September 16, staff hosted a booth at the Spirit and Soul Festival in Richmond. Information on rebate programs, water waste, water supply, and general water conservation information was provided to consumers and vendors. A highlight for the event was the inaugural introduction of the District's new water trailer that drew a crowd to take a sip or fill a water bottle. The event attracted several hundred attendees with approximately 100 visitors to the District booth and water trailer.

Staff participated in the following outreach activities:

- September 16-17 – Lafayette Art and Wine Festival, Lafayette, CA – 600 visited the booth
- September 17 - 24th Annual El Sobrante Stroll, El Sobrante, CA – 100 visited the booth

WORKFORCE PLANNING AND DEVELOPMENT

On September 11-12, staff participated at the American Society of Civil Engineer's Congress on Technical Advancement in Duluth, Minnesota. On September 11, staff presented "Geohazards and Analytical Approaches for Seismic Design and Construction of Buried Pipelines." The presentation discussed analytical methods for evaluating the seismic response of buried pipelines. On September 12, staff chaired a technical session and presented on the topic of improving infrastructure resilience. The session provided a forum for sharing information on efforts by engineers, researchers, and owners of critical infrastructure to predict damage, manage recovery efforts, and estimate the timeline to restore lifeline systems after a disaster. This session included presentations by four resiliency experts.

On September 16, R. Warren Media presented its Shades of Hue Award of Honor to the District's Contract Equity Administrator during the 2017 Bay Area Unity Festival. This award recognizes women of color who have made a concerted effort to embrace diversity in contracting and serving our local communities. This event was attended by 65 people.

On September 19, staff attended the Alameda County Career Expo held at the Zero Net Energy Center in San Leandro. This event was co-sponsored by East Bay Works, Alameda County and the City of Oakland's Workforce Development Boards. Staff met with nearly 100 local, diverse job seekers including women, minorities, veterans and individuals with disabilities. Auxiliary aides and services, including sign language interpreters, were readily available at this Equal Opportunity Employer Program event. Staff's participation at this event helps the District's efforts to recruit and attract diverse individuals, including recent college graduates from the East Bay who are searching for entry-level professional and trades job opportunities.

On September 20, staff presented "Residential Fire Sprinklers: A Water Purveyor's Perspective"at the Northern California Residential Fire Sprinkler Symposium in Roseville, California. The symposium was attended by approximately 30 people representing Northern California fire agencies, fire sprinkler contractors, and water purveyors.

On September 22, staff participated in the Bay Planning Coalition's 2017 Energy & Water Nexus Summit. A panel of experts provided the latest information on the Sustainable Groundwater Management Act's implementation, and ABAG/Bay Metro planning for resilience, and the State's newly reauthorized cap and trade program.

On September 22, staff attended Tradeswomen, Inc.'s (TWI's) Annual Celebration and Fundraiser Event. Since 1979, TWI's goal has been to increase the number of successful women working in the skilled trades through its mission of outreach, recruitment, retention, and leadership development. Sponsorship of this event supports the District's commitment to recruit women in the trades and develop qualified diverse candidate pools for the skilled trades.

On September 25, the District received the "Outstanding Partner" Award from Biotech Partners, one of the District's high school internship affiliates. This award is in appreciation for the District's dedication to encouraging youth and developing future scientists by providing support for Biotech and its students through its internship program. The District's high school internship program supports the District's long-term efforts to develop a diverse pipeline of candidates for our future workforce needs.

Staff volunteered, on their own time, to support for Engineers Without Borders and provided engineering knowledge and expertise to implement various infrastructure projects to deliver safe and reliable drinking water in Loa, a rural village in Fiji. These projects included enlarging the existing village water dam, improving intake piping, and adding new pipe supports for water supply piping to prevent breakage during a large storm. Staff was instrumental to the engineering design of these projects and the actual implementation to complete the work.

Tuition Reimbursement

	September 2017	FY18 Total
# of Employees	13	67
# of Classes	18	96
Total Reimbursed	$11,069	$63,124

Employment Information

	September 2017	FY18 Total
Retirements – Regular	6	16
Retirements – Vested	1	4
Hires/Rehires	10	23
Other Separations	3	19

FINANCIAL STABILITY

There were no material, supply or construction contracts over $70,000 and less than $100,000 approved by the General Manager in September 2017.

The Net Mokelumne Power Revenue for September was $495,488. Inflows into Pardee Reservoir for September were 108 percent of plan. Generation was 94 percent of plan. The District sold Renewable power, related Renewable Energy Credits (REC), and Resource Adequacy capacity to Marin Clean Energy (MCE). Sales of RECs generated $60,690, and Resource Adequacy sales generated $5,700 in revenue. Sales of Ancillary Service generated approximately $15,000 in revenue. The average electricity price was $52/MWh. Total net FY18 Mokelumne Power Revenue is an estimated $2,245,095 which is 60.7 percent of budgeted $3,700,000 and 42.2 percent of the planned revenue of $5,319,300.

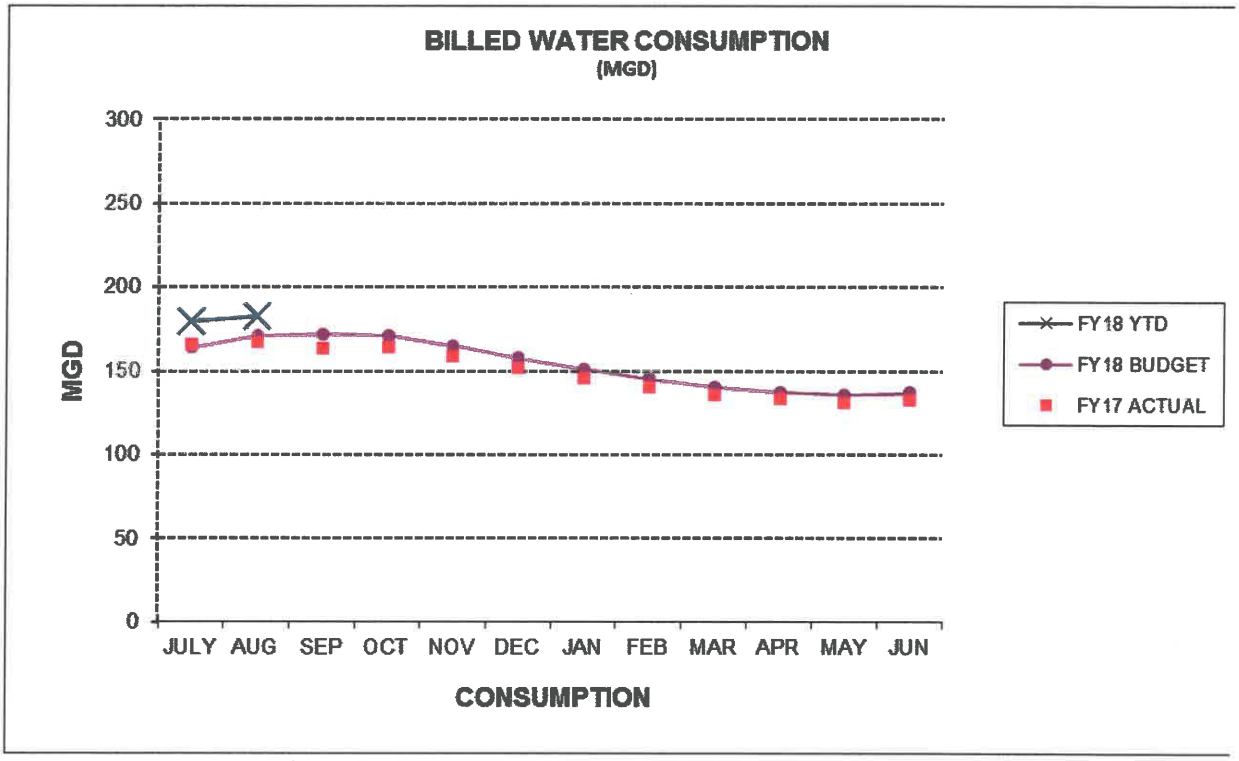
FY18	**Net Revenue**		**Inflow (Acre Feet)**	
	Plan	Actual	Plan	Actual
July 2017	$799,250	$1,001,513	84,000	81,629
August 2017	$780,310	$748,094	56,000	40,590
September 2017	$366,590	**$495,488**	32,000	**34,600**
FY18 YTD Total	$1,946,150	**$2,245,095**	172,000	**156,819**

Bold items are estimated

Water Sales (Consumption)

The following consumption information is the average water consumption in million gallons per day (MGD) for the first two months of FY18. While the budgeted average daily water consumption for FY18 is 137 MGD, the summer month consumption is higher due to outdoor watering. The table below shows the average billed water consumption information by customer class with a comparison to FY17 data for the same period of time. Current fiscal year-to-date actuals through August are above prior fiscal year actuals for the same period.

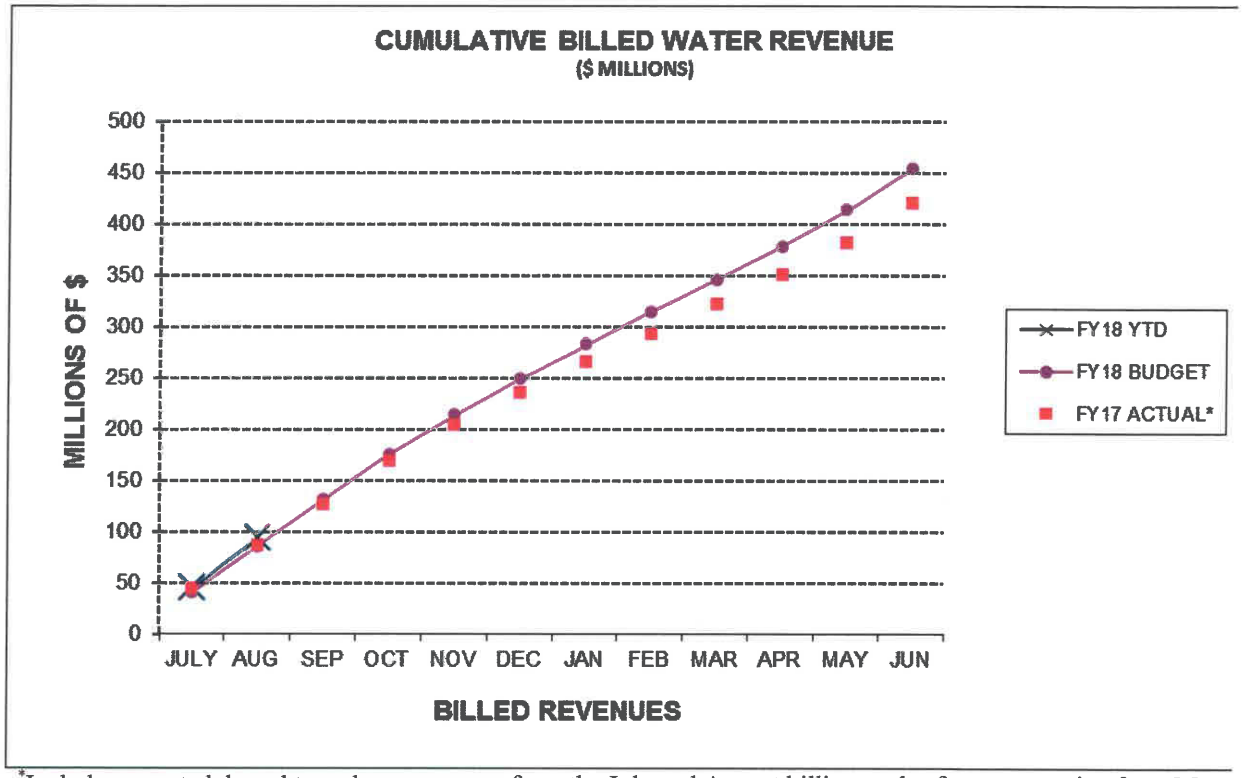
Fiscal Year-to-Date Billed Water Consumption			
Usage Type	**FY18 (MGD)**	**FY17 (MGD)**	**Year-over-Year (% change)**
Residential	95.0	85.9	10.6%
Commercial	62.0	55.9	10.9%
Industrial	16.2	16.9	-4.1%
Public Authority	9.1	8.0	13.8%
Total Billed Water Consumption	**182.3**	**166.7**	**9.4%**



Source: Customer Information System

Water Sales (Revenue)

Water revenues billed through August were $94.1 million or 8.0% more than the FY17 revenue through August of $87.1 million. This increase reflects the net impact of higher consumption and the 9.25% FY18 rate increase. The FY17 data includes $5.6 million of drought surcharge revenue. The FY18 water revenues through August are $8.3 million, or 9.7%, greater than the budgeted water revenue of $85.8 million. FY18 actual revenue for August is slightly above FY17 August revenue.



*Includes prorated drought surcharge revenue from the July and August billing cycles for consumption from May and June 2016.

Source: Customer Information System

SEPTEMBER 2017 MAIN BREAKS

City	Pre	Street	Suf	Pipe Material	Pipe Diameter	Year Installed	Est Water Loss (Gal)	Identified On	Completed On	KPI Met?
ALAMEDA		FAIRVIEW	AVE	CAST IRON	6.00	1931	17,280	9/2/2017	9/5/2017	Yes
ALAMO		BOLLA	PL	ASBESTOS CEMENT	6.00	1972	5,760	9/20/2017	9/21/2017	Yes
BERKELEY		BERRYMAN	ST	CAST IRON	8.00	1934	9,000	9/28/2017	9/29/2017	Yes
BERKELEY		CRAGMONT	AVE	CAST IRON	6.00	1931	0	9/11/2017	9/14/2017	Yes
BERKELEY		MERCED	ST	CAST IRON	6.00	1930	0	9/14/2017	9/20/2017	Yes
BERKELEY		ROOSEVELT	AVE	ASBESTOS CEMENT	6.00	1958	900	9/20/2017	9/20/2017	Yes
BERKELEY		TUNNEL	RD	ASBESTOS CEMENT	6.00	1955	13,500	9/20/2017	9/21/2017	Yes
CASTRO VALLEY		CASTRO VALLEY	BL	ASBESTOS CEMENT	8.00	57	14,400	8/31/2017	9/4/2017	Yes
CASTRO VALLEY		HOBERT	ST	CAST IRON	6.00	1947	0	9/6/2017	9/6/2017	Yes
DANVILLE		BUCHANAN	LN	ASBESTOS CEMENT	6.00	1956	3,600	9/3/2017	9/3/2017	Yes
DANVILLE		EL PINTADO		ASBESTOS CEMENT	6.00	1976	1,170	9/22/2017	9/22/2017	Yes
DANVILLE		LUZ	CT	ASBESTOS CEMENT	6.00	1974	900	9/11/2017	9/11/2017	Yes
DIABLO		MT DIABLO SCENIC	BL	STEEL	8.00	1960	1,350	9/4/2017	9/6/2017	Yes
EL CERRITO		ALVA	AVE	CAST IRON	6.00	1956	5,760	9/25/2017	9/28/2017	Yes
EL CERRITO		SEAVIEW	DR	CAST IRON	6.00	1945	38,880	9/11/2017	9/19/2017	Yes
EL CERRITO		SEAVIEW	DR	CAST IRON	6.00	1945	2,880	9/19/2017	9/20/2017	Yes
HAYWARD	W	A	ST	ASBESTOS CEMENT	6.00	1957	45,000	8/31/2017	9/1/2017	Yes
LAFAYETTE		FOYE	DR	CAST IRON	4.00	1940	0	9/21/2017	9/21/2017	Yes
LAFAYETTE		MOUNTAIN VIEW	DR	CAST IRON	6.00	1938	9,000	9/12/2017	9/12/2017	Yes
LAFAYETTE		OAK HILL	RD	ASBESTOS CEMENT	6.00	1963	4,500	9/4/2017	9/4/2017	Yes
LAFAYETTE		PHILLIPS	RD	ASBESTOS CEMENT	6.00	1958	0	8/14/2017	9/7/2017	Yes
LAFAYETTE		PLEASANT HILL	RD	CAST IRON	6.00	1941	28,800	9/18/2017	9/21/2017	Yes
LAFAYETTE		RELIEZ VALLEY	RD	STEEL	6.00	1957	1,350	9/19/2017	9/19/2017	Yes
LAFAYETTE		UPPER HAPPY VAL	RD	ASBESTOS CEMENT	6.00	1954	13,500	9/13/2017	9/13/2017	Yes

KPI=turnaround time to repair the leak

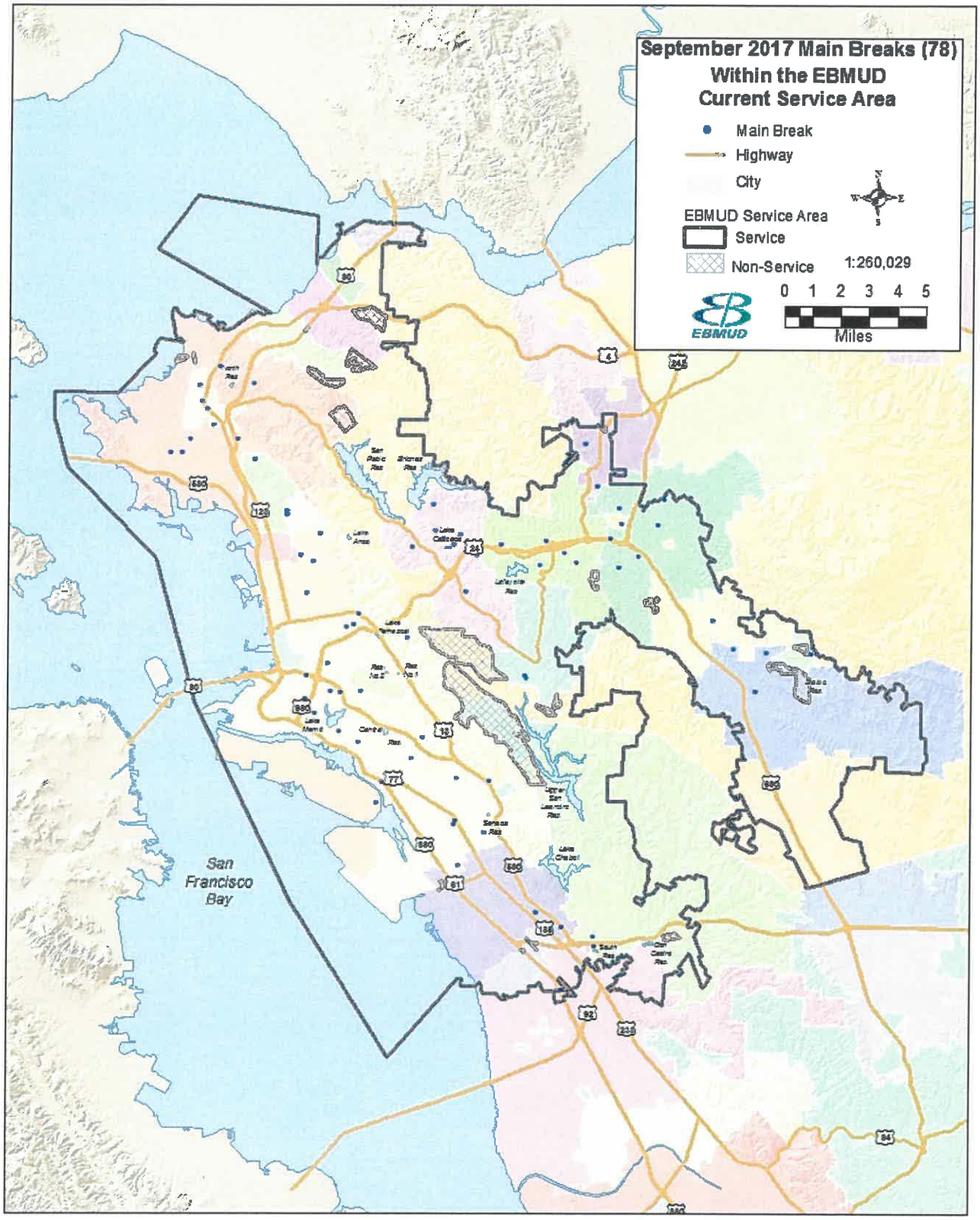
SEPTEMBER 2017 MAIN BREAKS

City	Pre	Street	Suf	Pipe Material	Pipe Diameter	Year Installed	Est Water Loss (Gal)	Identified On	Completed On	KPI Met?
LAFAYETTE		UPPER HAPPY VAL	RD	ASBESTOS CEMENT	6.00	1953	4,500	9/12/2017	9/12/2017	Yes
MORAGA		AUGUSTA	DR	GALVANIZED	12.00	1985	270	9/8/2017	9/9/2017	Yes
MORAGA		AUGUSTA	DR	GALVANIZED	12.00	1978	8,640	9/17/2017	9/22/2017	Yes
OAKLAND		4TH	AVE	CAST IRON	6.00	1936	7,200	9/28/2017	9/29/2017	Yes
OAKLAND		17TH	AVE	CAST IRON	6.00	1930	1,350	9/22/2017	9/22/2017	Yes
OAKLAND		17TH	ST	WROUGHT IRON	4.00	1924	180	9/30/2017	9/30/2017	Yes
OAKLAND		65TH	AVE	CAST IRON	6.00	1928	1,080	9/14/2017	9/14/2017	Yes
OAKLAND		87TH	AVE	CAST IRON	6.00	1937	27,000	9/27/2017	9/28/2017	Yes
OAKLAND		36TH	AVE	CAST IRON	6.00	1939	0	9/6/2017	9/13/2017	Yes
OAKLAND		ACALANES	DR	CAST IRON	4.00	1944	0	8/28/2017	9/13/2017	Yes
OAKLAND		BROOKDALE	AVE	CAST IRON	6.00	1932	8,640	9/6/2017	9/11/2017	Yes
OAKLAND		FAIRMOUNT	AVE	CAST IRON	6.00	1951	2,880	9/14/2017	9/15/2017	Yes
OAKLAND	W	GRAND	AVE	CAST IRON	6.00	1926	11,520	9/15/2017	9/22/2017	Yes
OAKLAND		INTERNATIONAL	BL	CAST IRON	6.00	1911	10,080	9/16/2017	9/16/2017	Yes
OAKLAND		KANSAS	ST	CAST IRON	6.00	1921	18,000	9/4/2017	9/4/2017	Yes
OAKLAND		LONGFELLOW	AVE	CAST IRON	4.00	1940	2,880	9/18/2017	9/19/2017	Yes
OAKLAND		MACARTHUR	BL	CAST IRON	8.00	1950	103,680	7/4/2017	9/13/2017	No
OAKLAND		MANOA	ST	CAST IRON	6.00	1938	4,320	9/4/2017	9/6/2017	Yes
OAKLAND		MARKET	ST	CAST IRON	4.00	1895	0	9/1/2017	9/11/2017	Yes
OAKLAND		MAYNARD	AVE	CAST IRON	6.00	1953	18,000	9/1/2017	9/1/2017	Yes
OAKLAND		ROSLYN	CT	CAST IRON	4.00	1950	0	8/31/2017	9/13/2017	Yes
OAKLAND		VALLEY VIEW	RD	CAST IRON	6.00	1922	1,350	9/4/2017	9/4/2017	Yes
OAKLAND		WEBSTER	ST	WROUGHT IRON	14.00	1926	0	8/12/2017	9/26/2017	No
ORINDA		BEAR RIDGE	RD	STEEL	8.00	1958	0	9/27/2017	9/27/2017	Yes
ORINDA		CAMINO SOBRANTE		CAST IRON	6.00	1934	6,750	9/1/2017	9/1/2017	Yes
ORINDA		CAMINO SOBRANTE		CAST IRON	6.00	1934	21,600	9/1/2017	9/5/2017	Yes

SEPTEMBER 2017 MAIN BREAKS

City	Pre	Street	Suf	Pipe Material	Pipe Diameter	Year Installed	Est Water Loss (Gal)	Identified On	Completed On	KPI Met?
ORINDA		CAMINO SOBRANTE		CAST IRON	6.00	1934	23,040	9/13/2017	9/20/2017	Yes
ORINDA		HACIENDAS	RD	STEEL	16.00	1954	31,680	8/31/2017	9/5/2017	Yes
ORINDA		LA ESPIRAL		CAST IRON	6.00	1938	4,500	9/23/2017	9/23/2017	Yes
ORINDA		MONTE VISTA	RD	ASBESTOS CEMENT	6.00	1955	18,000	9/13/2017	9/13/2017	Yes
ORINDA		OWL HILL	CT	CAST IRON	6.00	1940	450	9/6/2017	9/6/2017	Yes
ORINDA		TAHOS	RD	ASBESTOS CEMENT	6.00	1956	0	8/21/2017	9/6/2017	Yes
PIEDMONT		BOULEVARD	WAY	CAST IRON	4.00	1910	54,720	8/15/2017	9/21/2017	No
PIEDMONT		MAXWELTON	RD	CAST IRON	4.00	1945	14,400	9/22/2017	9/23/2017	Yes
RICHMOND		4TH	ST	CAST IRON	6.00	1935	9,000	9/21/2017	9/21/2017	Yes
RICHMOND		29TH	ST	CAST IRON	6.00	1948	0	9/18/2017	9/18/2017	Yes
RICHMOND		12TH	ST	STEEL	24.00	1938	11,520	9/15/2017	9/18/2017	Yes
RICHMOND		ESMOND	AVE	CAST IRON	6.00	1944	9,000	9/15/2017	9/16/2017	Yes
RICHMOND		GARVIN	AVE	ASBESTOS CEMENT	8.00	1965	21,600	9/4/2017	9/6/2017	Yes
RICHMOND		GRANADA	RD	CAST IRON	6.00	1946	900	9/25/2017	9/25/2017	Yes
RICHMOND		HILLVIEW	DR	ASBESTOS CEMENT	8.00	1982	450	9/13/2017	9/13/2017	Yes
SAN LEANDRO		153RD	AVE	ASBESTOS CEMENT	6.00	1966	23,040	9/16/2017	9/19/2017	Yes
SAN LEANDRO		MIRAMONTE	AVE	CAST IRON	6.00	1946	0	9/19/2017	9/22/2017	Yes
SAN PABLO		17TH	ST	ASBESTOS CEMENT	6.00	1959	0	9/20/2017	9/20/2017	Yes
SAN PABLO		LOVEGROVE	ST	CAST IRON	6.00	1948	12,960	9/4/2017	9/12/2017	Yes
SAN PABLO		SAN PABLO	AVE	CAST IRON	12.00	1946	0	9/14/2017	9/14/2017	Yes
WALNUT CREEK		ALLEGHENY	DR	ASBESTOS CEMENT	6.00	1978	9,000	9/18/2017	9/18/2017	Yes
WALNUT CREEK		CAMINO DIABLO		CAST IRON	6.00	1941	4,500	9/16/2017	9/16/2017	Yes
WALNUT CREEK		KAREN	LN	ASBESTOS CEMENT	6.00	1962	1,350	9/18/2017	9/18/2017	Yes
WALNUT CREEK		LILAC	DR	CAST IRON	8.00	1968	25,920	9/15/2017	9/20/2017	Yes
WALNUT CREEK		MIRAMONTE	RD	CAST IRON	6.00	1945	7,200	9/13/2017	9/13/2017	Yes
WALNUT CREEK		PANORAMIC	WAY	CAST IRON	8.00	1933	45,000	9/25/2017	9/25/2017	Yes

SEPTEMBER 2017 MAIN BREAKS										
City	Pre	Street	Suf	Pipe Material	Pipe Diameter	Year Installed	Est Water Loss (Gal)	Identified On	Completed On	KPI Met?
WALNUT CREEK		PANORAMIC	WAY	CAST IRON	8.00	1933	900	9/28/2017	9/28/2017	Yes
WALNUT CREEK		WOOTTEN	DR	ASBESTOS CEMENT	6.00	1967	4,500	9/15/2017	9/15/2017	Yes
						TOTAL	**811,080**			


September 2017 Main Breaks (78)
Within the EBMUD
Current Service Area
Main Break
Highway
City
EBMUD Service Area
Service
Non-Service
1:260,029
0 1 2 3 4 5
Miles
EBMUD
San
Francisco
Bay

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 5, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Rischa S. Cole, Secretary of the District

SUBJECT: Finance/Administration Committee Minutes – September 26, 2017

Director John A. Coleman called to order the Finance/Administration Committee meeting in the Training Resource Center at 9:02 a.m. Director Frank Mellon was present at roll call. Chair William B. Patterson arrived at 9:12 a.m. Staff present included General Manager Alexander R. Coate, General Counsel Craig S. Spencer, Director of Finance Sophia D. Skoda, Manager of Customer and Community Services Sherri A. Hong, Manager of Information Systems Nicholas J. Irias, Treasury Manager Dari Barzel, Risk Manager Karen K. Curry, Engineering Manager Elizabeth Z. Bialek, Information Systems Division Manager Andrew J. Levine, Internal Auditor Supervisor Barry N. Gardin, Special Assistant to the General Manager Alison A. Kastama, and Secretary of the District Rischa S. Cole.

Public Comment. None.

FY18 Insurance Summary. Risk Manager Karen K. Curry reported that the District's insurance policies have been renewed for Fiscal Year (FY) 2018. The overall cost of insurance in FY18 had a 4 percent decrease over FY17, from $1,470,065 to $1,409,798. This decrease is $210,649 or 14.9 percent below budget. She noted that the District's broker was unable to find reasonably priced earthquake insurance but will continue to search the market and explore options. The Committee asked questions about the bidding and vetting processes used for insurance carriers and requested that staff include the names of insurance carriers in future reports. It was moved (Mellon), seconded (Coleman) and carried (2-0) to accept the report. Chair Patterson was absent.

Monthly Investment Transactions Reports. Treasury Manager Dari Barzel reviewed the reports for July and August 2017 and advised they would be forwarded to the Board for consideration. The Committee asked how much interest the District earned on its investments during this reporting period and staff responded between 1.25–1.5 percent. It was moved (Coleman), seconded (Mellon) and unanimously carried (3-0) to forward the reports to the full Board for approval.

State Revolving Fund Financing Agreement for South Reservoir Replacement Project. Treasury Manager Dari Barzel presented an overview of the proposed financing for the project which is estimated to cost $18,513,000 and scheduled for completion in summer 2018. On September 12, the Board authorized staff to negotiate a financing agreement with the State Water Resources Control Board (SWRCB) for a loan of up to $22,215,600 (which includes a contingency loan amount) from the SWRCB's Drinking Water State Revolving Fund at an interest rate which is set annually at one-half of the State's General Obligation bond rate. Under the financing agreement, the SWRCB would disburse loan proceeds on an ongoing basis to reimburse the District's actual project costs, and the District would make annual principal and interest

payments to repay the loan over a 30-year term beginning one year after the project is complete. The District applied for the maximum allowed 120 percent of estimated project costs. The total loan amount is expected to be approximately $18.2 million and compared with traditional revenue bond financing, could save roughly $4.7 million in interest costs on a net present value basis. She explained how the loan will operate similar to a line of credit, with the District permitted to borrow only for actual amounts spent after an eligibility date of September 13, 2017. When the project is completed, the "line of credit" will close and the loan amount will be fixed at the amount drawn. She noted that although some of the loan terms are more stringent than the requirements set forth by the District's revenue bond indenture, staff is confident that this does not place an unreasonable hardship on the District and is recommending Board approval of the agreement. There was discussion about providing assistance to disadvantaged communities applying for State Revolving Fund loans. The Committee asked staff to explore Agricultural industry's willingness to assist these communities with applying for loans. It was moved (Coleman), seconded (Mellon) and unanimously carried (3-0) to forward the staff recommendation to the full Board for approval.

State Revolving Fund Financing Agreement for MacArthur/Davenport Pipeline Replacement Project. Treasury Manager Dari Barzel presented an overview of the proposed financing for the project which is estimated to cost $15,568,000 and is scheduled for completion in summer 2019. On September 12, the Board authorized staff to negotiate a financing agreement with the SWRCB for a project loan of up to $18,680,000 (which includes a contingency loan amount) from the SWRCB's Drinking Water State Revolving Fund. The District applied for the maximum allowed 120 percent of estimated project costs. Compared with traditional revenue bond financing, the District could save roughly $4.8 million in interest costs on a net present value basis. The loan will operate and be repaid based on the terms described for the South Reservoir Project. It was moved (Coleman), seconded (Mellon) and unanimously carried (3-0) to forward the staff recommendation to the full Board for approval.

Review of Revisions to District Policies. Internal Auditor Supervisor Barry N. Gardin reported that nine policies warrant modification to clarify their purpose and accurately reflect current procedures and/or operating practices. These include: Policy 3.03 – Community Fire Flow Improvement Program; Policy 3.04 – Coordination of District Construction and Maintenance Work with Other Agencies; Policy 4.05 – Financing Facilities to Serve Applicants for New Services; Policy 4.12 – Purchasing and Materials Management; Policy 4.14 – Reimbursement of Director Expenses; Policy 4.21 – Land and Conservation/Mitigation Credit Sales – Use of Funds; Policy 7.04 – Access to District Property for Tours; Policy 8.04 – Establishing Wastewater Capacity Fees; and Policy 9.06 – Bay-Delta Protection. Mr. Gardin stated that Policy 4.14 had been revised to further clarify language regarding Director lodging expenses. There was discussion about revisions to Policies 4.05, 4.14 and 9.06. The Committee asked staff to make additional revisions to Policy 4.14 to clarify the reimbursement process for parking meter payments with no receipts, to include ride sharing services such as Uber and Lyft and to add a requirement for Directors to receive advance approval for expenditures that are not deemed emergency, District-related business expenses. Following discussion, General Manager Coate said staff would make the edits to Policy 4.14 and provide updated copies to the Board at the afternoon meeting. It was moved (Mellon), seconded (Coleman) and unanimously carried (3-0) to forward the policies with the additional revisions to Policy 4.14 to the full Board for approval.

Status of District Cloud Services Usage. Information Systems Division Manager Andrew J. Levine reviewed how the District uses cloud services in its operations in response to questions regarding data security in the cloud at the June 13, 2017 Board meeting. He reviewed the types of District services currently deployed to the cloud, upcoming projects being considered for cloud hosting, the pros and cons of using these services, mitigations for security risks and the evaluation process used to vet cloud vendors. There was discussion about cloud service redundancy, data transmission, impacts of solar flares and District data back-up processes. The Committee thanked staff for the presentation.

Division of Safety of Dams (DSOD) Condition Assessment of Lafayette Dam. Engineering Manager Elizabeth Z. Bialek presented an overview of the District's work with the DSOD to develop a tower retrofit concept for the dam. In September 2017 the DSOD classified Lafayette Dam with a Fair rating due to the seismic vulnerability of its outlet tower, which functions as a spillway, and its location upstream of a populated area. The main embankment was evaluated to be safe. The DSOD has requested that the District develop a plan and schedule to retrofit the tower by November 2019. The District is proactively lowering the reservoir level and currently developing an alternative that will repair and to the extent possible, preserve the visual aspects of the tower with minimal environmental impacts. The DSOD's initial review of this alternative was favorable and a formal technical memorandum will be presented for DSOD approval by September 30, 2017. Staff is working to reallocate funds from other dam safety projects, subject to Board approval, and if approved, anticipates that construction can be completed by winter 2020. The total project cost is estimated to be about $4 million. There was discussion regarding the information presented and Director Coleman requested that staff check his availability when scheduling project updates to the Lafayette City Council and the community.

Initial Customer Assistance Policy. Manager of Customer and Community Services Sherri A. Hong reviewed the draft Customer Assistance Policy which outlines the District's commitment to assist eligible low-income customers with their water and wastewater bills and the process for providing assistance. The draft policy includes a set of principles intended to guide the District as it considers additional enhancements to the Customer Assistance Program (CAP) and edits proposed by the Planning Committee during its September 12 meeting. The Committee thanked staff for their efforts and asked that they follow up with the Senior Assistance Foundation of the East Bay regarding CAP opportunities and to provide a copy of the policy highlighting the edits made by the September 12 Planning Committee when advancing it to the full Board for consideration. It was moved (Mellon), seconded (Coleman) and unanimously carried (3-0) to forward the policy to the full Board for approval on October 10.

Adjournment. Chair Patterson adjourned the meeting at 10:57 a.m.

ARC/RSC