



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATION
CONTACT: Osborn Solitei

AGENDA DATE: October 19, 2016

ITEM NO. 11

SUBJECT: Proposed Treated Water Rate Schedules for Calendar Years 2017 and 2018

SUMMARY:

- Staff are proposing to extend the current temporary surcharge of \$0.57 per 100 cubic feet (CCF) for another year.
- The table below shows the proposed volume-based rates for calendar year (CY) 2017 and CY 2018.

Volume-based Rate	CY 2017¹	CY 2018
Rate per CCF	\$1.98	\$2.04
Temporary Surcharge per CCF	\$0.57	-
Total per CCF	\$2.55	\$2.04

¹Includes a temporary one-year surcharge of \$0.57 CCF which will sunset on December 31, 2017; any extension of the temporary surcharge will require a separate Board approval.

- If adopted, the proposed fixed charges and volume-based rates will become effective on January 1, 2017 and apply to calendar years (CY) 2017 and CY 2018.
- The tables below show the proposed fixed charges per Retailer and Direct Customer for CY 2017 and CY 2018. CY 2018 Total Fixed Charges by Retailer/Direct Customer may vary but the total amounts of \$15,686,384 and \$163,226 will not be changed without Board approval.

Fixed Charge per Retailer	CY 2017	CY 2018¹
City of Pleasanton	\$4,468,719	\$4,647,458
Dublin San Ramon Services District	\$4,363,160	\$5,014,000
California Water Service Company	\$2,751,052	\$3,148,143
City of Livermore	\$2,640,824	\$2,876,783
Total Retailer Fixed Charge	\$14,223,755	\$15,686,384

Fixed Charge per Direct Customer	CY 2017	CY 2018¹
Lawrence Livermore Laboratory	\$61,273	\$60,060
Veterans Hospital	\$55,489	\$68,911
Wente Vineyards	\$19,941	\$25,096
East Bay Regional Park District	\$5,949	\$7,656
Livermore Area Parks and Recreation District	\$863	\$1,489
State of California Department of Water Resources	\$15	\$15
Total Direct Customer Fixed Charge	\$143,531	\$163,226

¹CY 2018 Fixed Charges per Retailer/Direct Customer are shown as an example only. The General Manager is authorized to reallocate CY 2018 Fixed Charges per Retailer/Direct Customer based on updated two-year rolling averages to be determined at the end of FY 2016-17.

RECOMMENDED ACTION:

Staff recommends adopting the attached resolution approving the Treated Water Service Rates for CY 2017 and CY 2018.



MEMORANDUM

DATE: October 19, 2016

TO: Jill Duerig, General Manager

FROM: Osborn Solitei, Assistant General Manager, Finance

SUBJECT: Proposed Treated Water Rate Schedules for Calendar Years 2017 and 2018

BACKGROUND:

The Agency's water enterprise fund has relied on reserves to fund operations while experiencing significant losses in water rate revenue due to required conservation during the drought. In order to recover from these significant financial losses, in 2015 Raftelis Financial Consultants, Inc. ("RFC") was hired to analyze Zone 7's cost of service and propose a three-year wholesale water rate schedule for CY 2016, 2017 and 2018. Ultimately, the Board approved a three-year rate schedule for CY 2016, 2017 and 2018 with a temporary conservation surcharge for CY 2016 which sunsets on December 31, 2016. The 2015 cost of service study projected water sales of 28,380 acre-feet of water for FY 2015-16, but only 23,648 acre-feet of water were actually sold. Even with the temporary conservation surcharge in place, use of reserves during FY 2015-16 totaled \$8.6M.

DISCUSSION:

Continued revenue losses due to drought conditions and State-mandated water use restrictions prompted staff to rehire RFC to revisit restructuring rates to include a fixed component and to determine whether the temporary conservation surcharge should be extended.

Staff met with the Retailers on the following dates to review and discuss RFC's preliminary financial model, key assumptions, rate structure examples and potential impacts to the Retailers using preliminary numbers:

- August 9, 2016
- August 23, 2016
- September 15, 2016

In addition to the above meetings with the Retailers, there have been several ongoing discussions about the rate study.

Direct outreach to the public included:

- Post card that were mailed to 94,000 businesses and residents on September 14, 2016
- eNewsletters distributed August 24, 2016 and September 16, 2016.
- Ads in local newspapers
 - The Independent – September 22, 2016
 - Pleasanton Weekly – September 23, 2016

RFC and staff gave a presentation on the proposed treated water rates and rate structure at the September 28, 2016 Special Board Meeting.

For Fiscal Year 2016-17, Fund 100 – Water Enterprise unaudited beginning fund balance is approximately \$5.8M. Without additional revenue adjustments or temporary surcharges, the revenues will not be able to cover all of the operating expenses. In addition, the current rates are calculated almost entirely as a volume-based rate using the Retailers’ and Direct Customers’ water demand projections.

In the 2015 Rate Study, temporary surcharges of \$7M and \$5M were projected for CY 2017 and CY 2018, respectively. However, due to FY 2015-16 revenue shortfall from reduced water sales, Zone 7 also needs to recover an additional \$4.1M. The total required revenue to recover over the last two fiscal years remaining for the temporary surcharge is \$16.1M (\$7M + \$5M + \$4.1M). In order to smooth out the temporary surcharge, RFC recommends that Zone 7 recover the total required revenue evenly over the course of the two years. However, under staff’s recommendation to continue the current Temporary Surcharge of \$0.57/CCF, \$7.7M will be recovered in FY 2016-17 and \$8.2M in FY 2017-18, totaling \$15.9M. Similar to this year’s updated analysis, the temporary surcharge for CY 2018 would be revaluated next year.

Additionally, RFC recommends that Zone 7 implement a fixed rate component that would recover 35% of revenue requirements. Currently, nearly 100% of revenue is recovered through volume-based rates although most of the expenses are fixed. Furthermore, the volume-based rates are calculated based on the Retailers and Direct Customers’ water demand projections, which may increase risk of a revenue shortfall if the Retailers and/or Direct Customers use less water than was previously projected. Establishing a fixed charge component would not entirely eliminate the revenue volatility, but it would mitigate a good portion of the volatility that exists in revenue collection and secure a baseline level of stable revenue each month. As a result of incorporating a fixed charge component, the current volume-based rate would drop as it would only recover 65% of revenue versus 100% of revenue.

The proposed volume-based rates and temporary surcharges are calculated based on water demand projections, and the proposed fixed charge allocations are based on the proportional share of each Retailer and Direct Customer’s average usage over the past two years. The table below shows the proposed volume-based rates for CY 2017 and 2018.

Volume-based Rate	CY 2017¹	CY 2018
Rate per CCF	\$1.98	\$2.04
Temporary Surcharge per CCF	\$0.57	-
Total per CCF	\$2.55	\$2.04

¹Includes a temporary one-year surcharge of \$0.57 per 100 cubic feet (CCF) which will sunset on December 31, 2017; any extension of the temporary surcharge will require a separate Board approval.

The tables below show the proposed fixed charges of \$14,223,775 for Retailers and \$143,531 for Direct Customers for CY 2017 and \$15,686,384 for Retailers and \$163,226 for Direct Customers for CY 2018. The General Manager is authorized to reallocate CY 2018 Fixed Charges per Retailer/Direct Customer based on updated rolling averages to be determined at the end of FY 2016-17. CY 2018 Total Fixed Charges by Retailer/Direct Customer may vary but

the total amount will not be changed without Board approval. Actual monthly billing will be 1/12 of the annual amount.

Fixed Charge per Retailer	CY 2017	CY 2018¹
City of Pleasanton	\$4,468,719	\$4,647,458
Dublin San Ramon Services District	\$4,363,160	\$5,014,000
California Water Service Company	\$2,751,052	\$3,148,143
City of Livermore	\$2,640,824	\$2,876,783
Total Retailer Fixed Charge	\$14,223,755	\$15,686,384

Fixed Charge per Direct Customer	CY 2017	CY 2018¹
Lawrence Livermore Laboratory	\$61,273	\$60,060
Veterans Hospital	\$55,489	\$68,911
Wente Vineyards	\$19,941	\$25,096
East Bay Regional Park District	\$5,949	\$7,656
Livermore Area Parks and Recreation District	\$863	\$1,489
State of California Department of Water Resources	\$15	\$15
Total Direct Customer Fixed Charge	\$143,531	\$163,226

¹CY 2018 Fixed Charges per Retailer/Direct Customer are shown as an example only. The General Manager is authorized to reallocate CY 2018 Fixed Charges per Retailer/Direct Customer based on updated two-year rolling averages to be determined at the end of FY 2016-17.

FUNDING:

Treated Water Sales revenue accrues to Fund 100 – Water Enterprise and, through transfers, to Fund 120 – Renewal, Replacement and System-Wide Improvements.

RECOMMENDED ACTION:

Staff recommends adopting the attached resolution approving the following Treated Water Service Rates for CY 2017 and CY 2018:

- a) Based on rates previously approved for CY 2017 and CY 2018, restructuring the current treated water rates to include a fixed charge to recover 35% of revenue requirements and volume-based rate to recover 65% of revenue requirements.
- b) Treated Water rate schedule for the volume-based rate of \$1.98 per CCF for CY 2017 and \$2.04 per CCF for CY 2018.
- c) Temporary surcharge of \$0.57 per CCF for CY 2017. This surcharge will **sunset December 31, 2017.**
- d) Establish a fixed charge component of \$14,223,775 for Retailers and \$143,531 for Direct Customers in CY 2017 based on a two-year rolling average of proportional use.
- e) Establish a fixed charge component of \$15,686,384 for Retailers and \$163,226 for Direct Customers in CY 2018 based on a two-year rolling average of proportional use.
- f) Authorize the General Manager to reallocate CY 2018 Fixed Charge per Retailer and Direct Customer based on updated two-year rolling average of proportional use, to be determined at the end of FY 2016-17.
- g) Eliminate the previously adopted monthly Treated Water Service Charge of \$153 and \$157 per metered service for CY 2017 and CY 2018, respectively.

ATTACHMENTS:

- Board Resolution
- Raftelis Financial Consultants, Inc. – Draft 2016 Wholesale Water Rate Study

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

***TREATED WATER SERVICE RATES FOR
CALENDAR YEARS 2017 AND 2018***

WHEREAS Zone 7 has experienced significant revenue losses due to drought conditions and State-mandated water use reductions; and

WHEREAS in 2015, the Zone 7 Board of Directors engaged an independent water rate consultant, Raftelis Financial Consultants, Inc. (“RFC”), to prepare a Cost of Service Study to identify the cost of providing wholesale treated water service. In October 2015, the Zone 7 Board adopted treated water rates for Calendar Years (CY) 2016, 2017 and 2018 and a Temporary Conservation Surcharge for CY 2016 which sunsets on December 31, 2016; and

WHEREAS continued revenue losses due to drought conditions and State-mandated water use reductions prompted staff to hire RFC to revisit restructuring rates to include a fixed component and to determine whether the temporary conservation surcharge should be extended; and

WHEREAS based on the rate study results, staff recommends restructuring the treated water rates to include a fixed charge to recover 35% of revenue requirements and volume-based rate to recover 65% of revenue requirements; and

WHEREAS calculations of fixed and volume-based rates are based on the rates previously adopted for Calendar Years 2017 and 2018; and

WHEREAS there is still a need for a Temporary Surcharge.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District hereby adopts the following treated water fixed charges and volume-based rates for CY 2017 and CY 2018.

FIRST, a water delivery charge, per the table below for all metered water delivered to each customer per month per 100 cubic feet (CCF) for CY 2017 and CY 2018 that includes a temporary surcharge of \$0.57 per CCF for calendar year 2017. This surcharge will **sunset December 31, 2017.**

Volume-based Rate	CY 2017¹	CY 2018
Rate per CCF	\$1.98	\$2.04
Temporary Surcharge per CCF	\$0.57	-
Total per CCF	\$2.55	\$2.04

¹Includes a temporary one-year surcharge of \$0.57 per 100 cubic feet (CCF) which will sunset on December 31, 2017; any extension of the temporary surcharge will require a separate Board approval.

SECOND, a fixed charge of \$14,223,775 for Retailers and \$143,531 for Direct Customers for CY 2017 per the tables below. Actual monthly billing will be 1/12 of the annual amount.

Fixed Charge per Retailer	CY 2017
City of Pleasanton	\$4,468,719
Dublin San Ramon Services District	\$4,363,160
California Water Service Company	\$2,751,052
City of Livermore	\$2,640,824
Total Retailer Fixed Charge	\$14,223,755

Fixed Charge per Direct Customer	CY 2017
Lawrence Livermore Laboratory	\$61,273
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Wente Vineyards	\$19,941
East Bay Regional Park District	\$5,949
Livermore Area Parks and Recreation District	\$863
State of California Department of Water Resources	\$15
Total Direct Customer Fixed Charge	\$143,531

THIRD, a fixed charge of \$15,686,384 for Retailers and \$163,226 for Direct Customers for CY 2018. Actual monthly billing will be 1/12 of the annual amount.

FOURTH, authorize the General Manager to reallocate CY 2018 Fixed Charge per Retailer and Direct Customer based on updated two-year rolling average of proportional use, to be determined at the end of FY 2016-17. CY 2018 Fixed Charges of \$15,868,364 and \$163,226 for Retailers and Direct Customers, respectively, will not be changed without Board approval.

FIFTH, rates and service charges for other treated water services, including recharge, temporary treated water, fire and standby and In-lieu treated water service shall remain as set in Zone 7 Board resolution 15-95.

SIXTH, eliminate the monthly Treated Water Service Charge of \$153 and \$157 per metered service for CY 2017 and CY 2018, respectively as set forth in Zone 7 Board resolution 15-95.

BE IT FURTHER RESOLVED that said fixed charges and volume-based rate schedules for treated water service as adopted herein shall be effective on January 1, 2017 and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on October 19, 2016.

By _____
President, Board of Directors

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 16-172

INTRODUCED BY DIRECTOR PALMER
SECONDED BY DIRECTOR McGRAIL

***TREATED WATER SERVICE RATES FOR
CALENDAR YEARS 2017 AND 2018***

WHEREAS Zone 7 has experienced significant revenue losses due to drought conditions and State-mandated water use reductions; and

WHEREAS in 2015, the Zone 7 Board of Directors engaged an independent water rate consultant, Raftelis Financial Consultants, Inc. (“RFC”), to prepare a Cost of Service Study to identify the cost of providing wholesale treated water service. In October 2015, the Zone 7 Board adopted treated water rates for Calendar Years (CY) 2016, 2017 and 2018 and a Temporary Conservation Surcharge for CY 2016 which sunsets on December 31, 2016; and

WHEREAS continued revenue losses due to drought conditions and State-mandated water use reductions prompted staff to hire RFC to revisit restructuring rates to include a fixed component and to determine whether the temporary conservation surcharge should be extended; and

WHEREAS based on the rate study results, staff recommends restructuring the treated water rates to include a fixed charge to recover 35% of revenue requirements and volume-based rate to recover 65% of revenue requirements; and

WHEREAS calculations of fixed and volume-based rates are based on the rates previously adopted for Calendar Years 2017 and 2018; and

WHEREAS there is still a need for a Temporary Surcharge.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District hereby adopts the following treated water fixed charges and volume-based rates for CY 2017 and CY 2018.

FIRST, a water delivery charge, per the table below for all metered water delivered to each customer per month per 100 cubic feet (CCF) for CY 2017 and CY 2018 that includes a temporary surcharge of \$0.57 per CCF for calendar year 2017. This surcharge will **sunset December 31, 2017.**

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FOURTH, authorize the General Manager to reallocate CY 2018 Fixed Charge per Retailer and Direct Customer based on updated two-year rolling average of proportional use, to be determined at the end of FY 2016-17. CY 2018 Fixed Charges of \$15,868,364 and \$163,226 for Retailers and Direct Customers, respectively, will not be changed without Board approval.

FIFTH, rates and service charges for other treated water services, including recharge, temporary treated water, fire and standby and In-lieu treated water service shall remain as set in Zone 7 Board resolution 15-95.

SIXTH, eliminate the monthly Treated Water Service Charge of \$153 and \$157 per metered service for CY 2017 and CY 2018, respectively as set forth in Zone 7 Board resolution 15-95.

BE IT FURTHER RESOLVED that said fixed charges and volume-based rate schedules for treated water service as adopted herein shall be effective on January 1, 2017 and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, GRECI, McGRAIL, PALMER, QUIGLEY, STEVENS

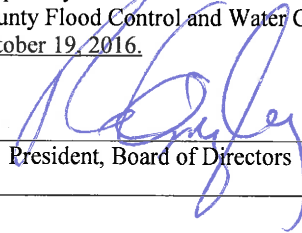
NOES: DIRECTOR RAMIREZ HOLMES

ABSENT: NONE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on October 19, 2016.

By



President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

ORIGINATING SECTION: ADMINISTRATION

CONTACT: Osborn Solitei

AGENDA DATE: October 17, 2018

ITEM NO. 9

SUBJECT: Treated Water Rates for Calendar Years 2019-2022

SUMMARY:

- In 2015, Zone 7 hired Raftelis to prepare a Wholesale Water Rate Study to determine treated water rates for Calendar Years 2016, 2017 and 2018.
- Calendar Year 2018 is the last year of the adopted rate schedule. Zone 7 has hired Raftelis to conduct another Wholesale Water Rate Study to determine a four-year rate schedule for Calendar Years 2019, 2020, 2021 and 2022. There is separate process for determining untreated water rates.
- On September 5, 2018, staff presented four rate scenarios at a Board Workshop on Water Rates.
- On September 19, 2018 staff presented two additional rate scenarios which included funding for water supply reliability projects ranging from \$9M to \$15.2M through FY 2021-22.
- Staff has taken a closer look at the proposed funding of future water supply reliability projects and recommends reducing the amount to \$3M over the next four years until more information is available.
- Staff also recommends funding the Operating, Emergency and Drought Contingency reserves at target levels and leave the Rate Stabilization Reserve unfunded during this study period. While this is a reasonable approach to reduce customer impacts, it's recommended that the Agency fund water supply reliability projects in the future and also review the current reserve policy based on industry standards and practices.
- Staff has prepared to two additional rate scenarios for the Board's consideration. Staff recommends Scenario 1 - (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Three Reserves at Target Levels + 3.7% Rate Adjustments).
- Staff recommends that the Board adopt a four-year rate schedule with target levels met in four years, however the Board reserves the right to adopt a different rate schedule (i.e., 2 or 3 years).

FUNDING:

Treated Water Sales revenue accrues to Fund 100 – Water Enterprise and provides capital funding to Fund 120 – Renewal, Replacement and System-Wide Improvements.

RECOMMENDED ACTION:

Adopt the attached resolution approving treated water rates for calendar years 2019-2022.

BACKGROUND:

On September 19, 2018 staff presented two additional rate scenarios which included funding for water supply reliability projects ranging from \$9M to \$15.2M through FY 2021-22. Staff has taken a closer look at the proposed funding of future water supply reliability projects and recommends reducing the amount to \$3M over the next four years until more information is available. Staff also recommends funding the Operating, Emergency and Drought Contingency reserves at target levels and leave the Rate

Stabilization Reserve unfunded during this study period. While this is a reasonable approach to reduce customer impacts, it's recommended that the Agency fund water supply reliability projects in the future and review reserve fund requirements and fund reserves based on industry standards and practices.

Under these assumptions, two additional scenarios have been developed. The two scenarios are:

- › Scenario 1 - (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Three Reserves at Target Levels + 3.7% Rate Adjustments)
- › Scenario 2 - (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Two Reserves at Target Levels and the Drought Contingency at the minimum level + 3% Rate Adjustments)

All scenarios include gradually increasing the fixed charge component from 35% to 45% by CY 2022.

Staff recommends that the Board adopt Scenario 1. Proposed volume-based rates, fixed charge recovery and total fixed charges by Retailer and Direct Customer under Scenario 1 are shown in the tables below.

Staff recommends that the Board adopt a four-year rate schedule with target levels met in four years, however the Board reserves the right to adopt a different rate schedule (i.e., 2 or 3 years).

Scenario 1 - Proposed Volume-Based Treated Water Rates per CCF					
Calendar Year	2018 Adopted	2019 Proposed	2020 Proposed	2021 Proposed	2022 Proposed
Volume-based Rate per CCF	\$2.04	\$2.01	\$2.10	\$2.06	\$2.15

Scenario 1 - Proposed Total Fixed Charges by Retailer and Direct Customer					
Calendar Year	2018 Adopted	2019 Proposed	2020 Proposed	2021 Proposed	2022 Proposed
Fixed Charge Recovery	35%	37.5%	40%	42.5%	45%
Retailers	\$15,686,384	\$18,834,149	\$21,060,643	\$25,357,284	\$28,323,642
Direct Customers	\$163,226	\$528,949	\$437,276	\$359,421	\$389,819
Total Fixed Charges	\$15,849,610	\$19,363,098	\$21,497,919	\$25,716,705	\$28,713,461

ZONE 7 COST EFFICIENCY MEASURES

Over the years the Agency has implemented several cost efficiency measures to reduce or minimize rate increases. The following is a summary of some cost efficiencies implemented by the Agency over the years:

Labor Costs

- › Continuing of a soft hiring freeze. In fiscal year 2018-19, the Agency added an additional six (6) positions to the soft hiring freeze. This brings the labor cost savings to approximately \$3 million annually with a total of 18 positions in soft hiring freeze.
- › Zone 7 employees pursuant to their collective bargaining agreement (“MOU”) with Alameda County increased their employee share of medical premium from the current 10% to 15% by fiscal year 2021-22.

Operations & Maintenance Costs

- › In April 2017, the Agency purchased the North Canyons Administrative Building with a saving of approximately \$7.1 million through February 2020, or average savings of \$1.8 million per year.
- › In 2010, the Agency implemented energy savings from the PG&E peak-day pricing program and in 2011, implemented solar panels at Del Valle Water Treatment Plant (D VWTP) and now the Agency is implementing solar panels at its North Canyons Administrative Building for additional energy savings.
- › The Agency purchases most of its water treatment chemicals through the Bay Area Chemical Consortium at an average savings of 20%.
- › During the drought the Agency was granted \$3 million of grant funding for drought emergency projects.

Debt Financing

In March 2018, the Agency received its first credit rating. The Standard & Poor's Global Ratings assigned its 'AA+' long-term rating to the Livermore Valley Water Financing Authority's series 2018 water revenue bonds. Fitch Ratings assigned a 'AA' rating to the same 2018 water revenue bonds. In announcing the credit rating, S&P cited the Agency's very strong cash position, stable financial metrics and extremely strong credit quality of the Agency's municipal customers. This translated to an estimated net present value savings of \$1.8 million in the refunding of the Cawelo capital payment and bonds sold at the lowest possible interest cost.

CAPITAL IMPROVEMENT PLAN

The Agency prepares a Capital Improvement Plan ("CIP") that outlines the plans for capital projects and programs needed to carry out the goals and policy objectives of the Agency. Formerly, the CIP incorporated the projects, costs, schedules, and priorities for both the Water System and the Flood Protection System. The Board adopted the FY 2018-19 Ten-Year Water System CIP in October 2017.

The Agency's Asset Management Plan ("AMP") documents how the Agency will fund and implement renewal and replacement projects for existing or planned assets. As part of the CIP update process, the Agency engaged HDR, Inc., to complete the 2017 Asset Management Plan Long-Term Funding Forecast Update. The 2017 AMP Update incorporated CIP projects that have been completed, assets that have been renewed since the last AMP update in 2011, future projects, and the long term renewal of assets. It also identified additional renewal and replacement projects. The 2017 AMP Update was adopted by the Board in October 2017 as part of FY 2018-19 Ten-Year Water System CIP. The Board-approved AMP funding level of \$12.3M (in 2017 dollars) annually was calculated based on debt financing the construction phases of the D VWTP and PPWTP Ozonation Projects. The AMP Board resolution is attached as Attachment B.

The adopted CIP can be found here:

<http://www.zone7water.com/component/content/article/36-public/content/82-capital-improvement-program>

A summary of the Fund 120 Water System CIP is shown in the table below.

Fund 120 Ten-Year CIP (\$millions)								
PROGRAM	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	TOTAL Five-Year CIP	FY 2023/24 - FY 2027/28	TOTAL 10-Year CIP
Buildings & Grounds	\$0.05					\$0.05	\$0.25	\$0.30
Groundwater Basin Management	\$0.25	\$0.51	\$0.17			\$0.93	\$0.80	\$1.73
Program Management	\$0.07	\$0.09	\$0.09	\$0.11	\$0.38	\$0.75	\$1.10	\$1.85
Regulatory Compliance	\$0.14	\$0.14	\$0.15	\$0.15	\$0.16	\$0.74	\$0.89	\$1.63
Transmission & Distribution	\$0.38	\$0.65	\$7.32	\$4.63	\$16.07	\$29.05	\$11.44	\$40.49
Water Supply & Conveyance ¹	\$0.51	\$0.13	\$0.80	\$2.10	\$1.08	\$4.62	\$33.50	\$38.12
Water Treatment Facilities ²	\$32.37	\$4.49	\$2.95	\$4.74	\$18.77	\$63.32	\$18.29	\$81.61
Wells	\$3.47	\$1.91	\$0.24	\$1.73	\$1.21	\$8.56	\$8.79	\$17.35
Grand Total	\$37.24	\$7.92	\$11.72	\$13.47	\$37.67	\$108.02	\$75.06	\$183.08

¹ Near-term projects are related to Chain of Lakes

² Assumes bond proceeds of \$19M for the PPTWP Ozone Project and \$16M cash funding for the PPWTP Upgrades Project

Current Major CIP Projects:

Del Valle Water Treatment Plant Ozone Project. This project consists of improvements to the Del Valle Water Treatment Plant including, but not limited to: new ozone generation facility, new ozone contactor structure, new chemical facilities including liquid oxygen and carbon dioxide, new electrical facilities, new water softening facility, new utility water pump station, new emergency generator, new chlorine contact pipeline, modifications to existing filters, chemical systems, piping, utilities, structures and site. The estimated cost of the DVWTP ozone project is approximately \$49 million, with \$38 million paid bond proceeds and the remainder \$11 million will be paid from the Fund 120 capital projects reserve balance. The project is expected to be complete by May 2020.

Patterson Pass Water Treatment Plant Upgrades and Ozonation Project. This project consists of improvements to the Patterson Pass Water Treatment Plant including, but not limited to: new ozone generation facility, new ozone contactor structure, new chemical facilities including liquid oxygen and carbon dioxide, new electrical facilities, new emergency generator, new chlorine contactor structure, new filters with filter gallery, new clearwell and pump station, and modifications to existing chemical systems, piping, utilities, structures, and site. The plant expansion increases plant capacity from approximately 19 million gallons per day (mgd) to 24 mgd. The estimated total construction cost for this project is approximately \$75 million. The estimated construction cost for the ozonation portion is \$40 million, of which approximately \$19 million is expected to be paid from the proceeds of the Bonds. This project is expected to be complete by early-2022.

In addition to the DVWTP Ozone and PPWTP Upgrades projects, there are other significant projects underway that are designed to maintain existing infrastructure:

- › Chain of Lakes Well 1 Stabilization Project (\$3.4M)
- › Dougherty Reservoir Recoating and Rehabilitation Project (\$1.1M)
- › DVWTP Polymer Mixing System Replacement (\$0.6M)

Also, planning and design is proposed for other Chain of Lakes projects such as the Chain of Lakes - Cope Lake to DVWTP Pipeline and Chain of Lakes Facilities and Improvements for the Water System.

Projected end of fiscal year balances for Fund 120 are shown in the table below:

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Fund 120						
Ending Balance	\$32,655,791	\$38,592,597	\$40,246,975	\$40,694,007	\$16,956,017	\$3,830,279

Water Supply Reliability Projects

In a normal year, over eighty percent of the Agency’s supply is derived from the State Water Project. The State Water Project reliability has been declining over the years due to increasingly stringent regulations, declining infrastructure and Delta conditions, and climate change. To protect the Livermore Valley’s major water supply, the Agency has been supporting the California WaterFix.

While the Agency’s current plan includes participation in the California WaterFix, the findings from the 2016 Water Supply Evaluation Update (WSE Update) indicated the Agency’s need to pursue additional water supply options to bolster interim reliability until California WaterFix is in place, to address the uncertainties of future regulatory requirements and impacts on Delta water supply, to potentially replace a water transfer agreement with Byron Bethany Irrigation District and to meet the demands of future customers. To that end, the Agency continues to evaluate alternative water supply and storage options such as the Bay Area Regional Desalination Project, Potable Reuse, Los Vaqueros Expansion, Sites Reservoir, and water transfers. Ultimately, the Agency may choose to implement one or a portfolio of these options depending on the results of the studies and planning efforts, the amounts and timing of development and conservation, and the determination of costs and benefits to the Livermore Valley.

The Water Supply Reliability projects under consideration are the Bay Area Regional Desalination Project, Potable Reuse, Los Vaqueros Expansion and water transfers. At this time, is anticipated that Sites Reservoir will be funded from Connection Fees and is not included in the water rates.

Moving forward, staff anticipates continued pursuit of a number of long-term water supply alternatives. With the 2018/2019 Water Supply Evaluation Update (2018/2019 WSE Update), the Board is expected to direct staff on which options to continue to pursue. While the analysis for the 2018/2019 WSE Update is still in progress, staff expects that Water Supply Reliability Projects will be needed to meet Zone 7’s Reliability Policy for existing customers as well as to meet future demands from development. Funding currently exists for development through Fund 130; a similar source of funding is required to serve the needs of existing customers.

For planning purposes, staff has assumed that California WaterFix and other water supply reliability projects could provide existing customers long-term reliability in accordance with Board policy. For example, Los Vaqueros Reservoir Expansion would provide storage and a source of emergency supply. Water transfer purchases would be needed in the interim before any large-scale water supply project is implemented in the next eight to fifteen years. Based on these assumptions—and accounting for available funds from Fund 310—staff estimates a need for a minimum of \$3M and up to \$15.2 million in Water Supply Reliability Projects funding from water rates from FY 2018-19 through FY 2021-22.

RESERVES

On April 17, 2013, the Zone 7 Board adopted an interim reserve policy (Resolution No. 13-4265). The purpose of the policy was to ensure the Agency’s ability to respond to changes in the economic environment and service demands with minimal impact on its customers while maintaining the financial integrity of the Agency. The policy also established minimum and maximum limits attributed to each reserve based on commonly exercised best practices from among industry peers. For Fund 100, the interim policy added a Drought Contingency Reserve and redefined the Rate Stabilization Reserve and its usage.

At the end of FY 2012-13, reserves within Fund 100 reached \$31.5M. During the drought \$26M of reserves were used, leaving the fund with a balance of \$5.4M at the end of FY 2015-16. The financial impacts of the drought provided the agency with a test case to review and revise the Interim Reserve Policy. On September 28, 2016, the Board adopted Resolution No. 16-166 approving a Final Reserve Policy. The revisions to the policy mostly impacted Fund 100. These revisions are summarized the table below.

Reserve		Former Policy	Adopted Policy
Operating	Minimum	32 days of operating expenses	60 days of operating expenses
	Target	60 days of operating expenses	90 days of operating expenses
	Maximum	90 days of operating expenses	120 days of operating expenses
Emergency	Minimum	1% of Water Enterprise assets	2% of Water Enterprise Assets
	Target	2% of Water Enterprise assets	2.5% of Water Enterprise Assets
	Maximum	3% of Water Enterprise assets	No change
Drought Contingency	Minimum	7% of budgeted water sales	5% of budgeted water sales
	Target	no target	10% of budgeted water sales
	Maximum	7% of budgeted water sales	20% of budgeted water sales
Rate Stabilization	Minimum	6% of budgeted water sales	10% of budgeted water sales
	Target	\$6.8M	15% of budgeted water sales
	Maximum	no maximum	20% of budgeted water sales

In November 2014, the American Water Works Association published an article, “*Why Water Agencies Need Reserves*” by Sanjay Gaur, Johnathan Cruz and Drew Atwater. This article discusses the many challenges faced by water agencies, including mandated conservation, drought, aging infrastructure and regulatory requirements related to water quality. These challenges underscore the need to have a formal reserve policy in place. A formal reserve policy is beneficial because it can help ensure that adequate cash is on hand to meet working capital needs and cope with revenue shortfalls, and achieve or maintain a strong credit rating for future debt issues.

A very strong cash position and prudent financial policies were cited as reasons why the agency received strong credit ratings. It is therefore prudent for the Agency to maintain or improve its financial position.

DISCUSSION AND ANALYSIS:

On September 19, 2018 staff presented two additional rate scenarios which included funding for water supply reliability projects ranging from \$9M to \$15.2M through FY 2021-22. Staff has taken a closer look at the proposed funding of future water supply reliability projects and recommends reducing the amount to \$3M over the next four years until more information is available.

Staff also recommends funding the Operating, Emergency and Drought Contingency reserves at target levels and leave the Rate Stabilization Reserve unfunded during this study period. While this is a reasonable approach to reduce customer impacts, it's recommended that the Agency fund water supply reliability projects and review the current reserve policy based on industry standards and practices.

Under these assumptions, two additional scenarios have been developed. The two scenarios are:

- › Scenario 1 - (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Three Reserves at Target Levels + 3.7% Rate Adjustments)
- › Scenario 2 - (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Two Reserves at Target Levels and the Drought Contingency at the minimum level + 3% Rate Adjustments)

All scenarios include gradually increasing the fixed charge component from 35% to 45% by CY 2022.

Cash flow and monthly customer impacts assuming 10, 15, and 20 CCF are shown for each scenario in the tables on the following pages.

RATE SCENARIOS

Scenario 1: (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Three Reserves at Target Levels + 3.7% Rate Adjustments)

- › Includes 3% CPI
- › Includes \$3 million (Water Supply Reliability Projects)
- › Funding three reserves at Target Levels (Operating, Emergency and Drought Contingency), no funding for the Rate Stabilization Reserve
- › Includes Fixed Component gradually increasing to 45%

Scenario 1 – Monthly Customer Rate Impacts

	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Variable Charge (\$/ccf)	\$2.04	\$2.01	\$2.10	\$2.06	\$2.15
Weighted Fixed Charge (\$/ccf)	\$1.14	\$1.32	\$1.43	\$1.67	\$1.81
Total Charge (\$/ccf)	\$3.18	\$3.33	\$3.53	\$3.73	\$3.96
Dollar Amount Difference					
10 ccf		\$1.50	\$2.03	\$2.02	\$2.31
15 ccf		\$2.24	\$3.04	\$3.03	\$3.47
20 ccf		\$2.99	\$4.06	\$4.03	\$4.63

Scenario 1 – Proforma Cash Flow

	FY 2019	FY 2020	FY 2021	FY 2022
Revenue				
Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
Total Additional Revenue	\$852,803	\$2,717,039	\$4,831,308	\$7,230,384
Total Rate Revenue	\$46,950,271	\$51,076,260	\$55,546,604	\$60,477,951
Investment Earnings	\$127,019	\$142,463	\$154,054	\$187,846
Other Revenue ¹	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
Total Revenue	\$48,223,635	\$52,396,647	\$56,908,324	\$61,904,097
Expenses				
O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
Water Supply Reliability Projects	\$500,000	\$500,000	\$1,000,000	\$1,000,000
Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
Proposed Debt Service	\$0	\$0	\$0	\$0
Total Expenses	\$34,842,318	\$39,147,573	\$41,361,183	\$43,146,551
Net Cash Flow before Capital Funding	\$13,381,317	\$13,249,074	\$15,547,141	\$18,757,546
ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
Net Cash Flow	\$883,911	\$253,746	\$2,040,133	\$4,718,391
Fund 100				
Ending Balance	\$14,131,548	\$14,385,295	\$16,425,428	\$21,143,819
Target (no Rate Stabilization)	\$18,059,759	\$19,181,096	\$20,050,911	\$20,983,811

¹Other revenue include untreated revenue at approx. \$1M annually and other miscellaneous revenue (rents, royalties, well permit fees, inspection fees etc.)

Scenario 2: (3% CPI + \$3M for Water Supply Reliability Projects + Fully Funding Two Reserves at Target Levels and the Drought Contingency at Minimum + 3% Rate Adjustments)

- › Includes 3% CPI
- › Includes \$3 million (Water Supply Reliability Projects)
- › Funding two reserves at Target Levels (Operating, Emergency) and the Drought Contingency at Minimum Levels, no funding for the Rate Stabilization Reserve
- › Includes Fixed Component gradually increasing to 45%

Scenario 2 – Monthly Customer Rate Impacts

	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Variable Charge (\$/ccf)	\$2.04	\$2.00	\$2.07	\$2.02	\$2.09
Weighted Fixed Charge (\$/ccf)	\$1.14	\$1.31	\$1.41	\$1.64	\$1.77
Total Charge (\$/ccf)	\$3.18	\$3.31	\$3.48	\$3.66	\$3.86
Dollar Amount Difference					
10 ccf		\$1.31	\$1.72	\$1.79	\$1.95
15 ccf		\$1.97	\$2.57	\$2.68	\$2.92
20 ccf		\$2.63	\$3.43	\$3.57	\$3.90

Scenario 2 – Proforma Cash Flow

	FY 2019	FY 2020	FY 2021	FY 2022
Revenue				
Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
Total Additional Revenue	\$691,462	\$2,197,927	\$3,895,619	\$5,810,263
Total Rate Revenue	\$46,788,930	\$50,557,148	\$54,610,916	\$59,057,830
Investment Earnings	\$127,019	\$138,233	\$142,470	\$164,308
Other Revenue ¹	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
Total Revenue	\$48,062,294	\$51,873,305	\$55,961,052	\$60,460,438
Expenses				
O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
Water Supply Reliability Projects	\$500,000	\$500,000	\$1,000,000	\$1,000,000
Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
Proposed Debt Service	\$0	\$0	\$0	\$0
Total Expenses	\$34,842,318	\$39,147,573	\$41,361,183	\$43,146,551
Net Cash Flow before Capital Funding	\$13,219,976	\$12,725,732	\$14,599,869	\$17,313,887
ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
Net Cash Flow	\$722,570	(\$269,596)	\$1,092,861	\$3,274,732
Fund 100				
Ending Balance	\$13,970,207	\$13,700,611	\$14,793,473	\$18,068,204
Target (no Rate Stab., Drought at min.)	\$15,704,179	\$16,601,328	\$17,226,797	\$17,888,908

¹Other revenue include untreated revenue at approx. \$1M annually and other miscellaneous revenue (rents, royalties, well permit fees, inspection fees etc.)

OTHER TREATED WATER RATES

Recharge Fee:

The annual rate schedule includes a recharge fee for retailer pumping beyond their respective independent/groundwater pumping quota. Staff has reviewed the Recharge Fee as part of the Cost of Service Study. The Recharge Fee applies only when Retailers exceed their respective groundwater pumping quota (GPQ). When Retailers pump beyond their GPQ, they are accessing Zone 7's water supply. Therefore, the recharge fee is being revised to capture the entire cost of Zone 7's water system (i.e. treated water rate) less the costs of chemicals and power, which are not incurred by Zone 7 in the process of recharging the basin. Historically, this fee has been rarely used and then only for small quantities since Retailers generally do not exceed their independent quota. The fee has been applied once in the past five years.

The adopted rate for CY 2018 proposed rates for CY 2019, CY 2020, CY 2021 and CY 2022 are shown in the table below:

Calendar Year	2018 Adopted	2019 Proposed	2020 Proposed	2021 Proposed	2022 Proposed
Recharge Fee per AF	\$870	\$1,380	\$1,455	\$1,468	\$1,471

In-Lieu Water Rate:

In the event staff concludes that surplus surface water is available and that it would be cost-effective to offer it to retailers at a reduced rate to achieve groundwater management objectives, in-lieu treated water could be offered. In-lieu water is treated water that the Retailers can purchase from Zone 7 instead of pumping their respective GPQ. This rate was established in 1993 to encourage artificial recharge when surplus surface water is available. The current rate for CY 2018 is \$138 per AF.

The rate is based on the power and chemical costs at the Del Valle and Patterson Pass Water Treatment plants and is proposed at \$103 per AF CY 2019, CY 2020, CY 2021 and CY 2022.

Temporary Treated:

The need for temporary services stems from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. The proposed Temporary Treated Water rate is equivalent to the treated water volume-based rate plus the weighted fixed charge.

Calendar Year	2018 Adopted	2019 Proposed	2020 Proposed	2021 Proposed	2022 Proposed
Temporary Treated Water per AF	\$1,446	\$1,451	\$1,538	\$1,625	\$1,725

Staff recommends that the Board adopt the attached resolution approving the proposed treated water rates for CY 2019, CY 2020, CY 2021 and CY 2022.

ATTACHMENTS:

1. Board Resolution
2. Attachment A - Cost of Service Study Executive Summary
3. Attachment B - Asset Management Plan Board Resolution

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

Adoption of the Treated Water Service Rates for Calendar Years 2019, 2020, 2021, 2022

WHEREAS the Agency engaged an independent water rate consultant, Raftelis, to prepare a Cost of Service Study to identify the cost of providing wholesale treated water service and the study recommends a four-year rate schedule.

WHEREAS the study recommends gradually increasing fixed charge revenue recovery from 35% in calendar year (CY) 2018 to 45% by CY 2022.

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District to adopt the following treated water rate schedules for Calendar Years 2019, 2020, 2021, and 2022.

FIRST, a volume-based water delivery charge, per the table below for all metered water delivered to each customer per month per 100 cubic feet (CCF) for CY 2019, CY 2020, CY 2021 and CY 2022.

Calendar Year	2019	2020	2021	2022
Volume-based Rate per CCF	\$2.01	\$2.10	\$2.06	\$2.15

SECOND, gradually increasing fixed charge revenue recovery from 35% in CY 2018 to 45% by CY 2022 per the table below.

	CY 2019	CY 2020	CY 2021	CY 2022
Fixed Revenue Recovery	37.5%	40%	42.5%	45%

THIRD, a fixed charge of \$18,834,149 for Retailers and \$528,949 for Direct Customers for CY 2019 per the tables below. Actual Fixed Charge monthly billing will be 1/12 of the annual amount.

Fixed Charge per Retailer	CY 2019
City of Pleasanton	\$5,971,854
Dublin San Ramon Services District	\$5,811,601
California Water Service Company	\$3,672,251
City of Livermore	\$3,378,443
Total Retailer Fixed Charge	\$18,834,149

Fixed Charge per Direct Customer	CY 2019
Lawrence Livermore Lab	\$465,889
Veterans Hospital	\$41,034
Wente Brothers	\$11,184
East Bay Regional Park District	\$9,116
L.A.R.P.D.	\$1,704
State of California DWR	\$22
Total Direct Customer Fixed Charge	\$528,949

FOURTH, fixed charges per the table below for CY 2020, CY 2021 and CY 2022. The Total Fixed Charges for these years shall not be changed without Board approval, however the actual allocation among Retailers and Direct Customers may change based on updated two-year rolling average of proportional use. Actual Fixed Charge monthly billing will be 1/12 of the annual amount.

Calendar Year	2020	2021	2022
Total Retailer Fixed Charges	\$21,060,643	\$25,357,284	\$28,323,642
Total Direct Customer Fixed Charge	\$437,276	\$359,421	\$389,819
Total Fixed Charges	\$21,497,919	\$25,716,705	\$28,713,461

FIFTH, authorize the General Manager to the reallocate CY 2020, CY 2021 and CY 2022 Fixed Charge per Retailer and Direct Customer based on updated two-year rolling average of proportional use, to be determined at the end of FY 2018-19 for the CY 2020 charges, FY 2019-20 for the CY 2021 charges and FY 2020-21 for the FY 2022 charges.

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Recharge, Temporary Treated Water and In-Lieu services be adopted:

FIRST, for Recharge services a recharge fee per the table below for CY 2019, CY 2020, CY 2021 and CY 2022, which is the unit cost of replenishment water to achieve full cost of recovery when it is necessary to replenish the main groundwater basin when water is pumped in excess of a retailers Groundwater Pumping Quota or Independent Quota.

Calendar Year	2019	2020	2021	2022
Recharge Fee per AF	\$1,380	\$1,455	\$1,468	\$1,471

SECOND, the Temporary Treated Water service rate is equivalent to the treated water volume-based charge plus the weighted fixed charge per CCF. The rates for CY 2019, CY 2020, CY 2021 and CY 2022 are per the table below:

Calendar Year	2019	2020	2021	2022
Temporary Treated Water per AF	\$1,451	\$1,538	\$1,625	\$1,725

THIRD, for Temporary Treated Water service an initial service establishment charge \$162 per turnout for CY 2019, \$167 for CY 2020, \$172 for CY 2021 and \$177 for CY 2022 for each new direct connection to the Zone system; and

A monthly meter service charge of \$21.00 per turnout for CY 2019, CY 2020, CY 2021 and CY 2022; and

FOURTH, for In-Lieu water services, a water rate of \$103 for CY 2019, CY 2020, CY 2021 and CY 2022, authorize the General Manager of Zone 7 of Alameda County Flood Control and Water Conservation District to offer to any treated water contractor who takes delivery of treated water from Zone 7 in lieu of pumping groundwater per their Groundwater Pumping Quota should appropriate circumstances be identified; and Zone 7 may offer this rate to its treated water contractors who have a Groundwater Pumping Quota (GPQ) (including well pumping capacity) if sufficient surface water is available and if it is deemed financially and operationally prudent; and, In-Lieu quantities will be limited to each contractor's GPQ plus any accumulated carry-over.

BE IT FURTHER RESOLVED that said water rate schedules for all treated water service as adopted herein shall be effective on January 1, 2019 and shall end on the next effective date for such water rates as adopted by the Board.

BE IT FURTHER RESOLVED that the General Manager of Zone 7 of the Alameda County Flood Control and Water Conservation District is hereby authorized to continue to enter into, renew, modify and otherwise administer all Temporary Treated Water service agreements in accordance with said rate schedules adopted herein and as may be modified from time to time.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on October 17, 2018.

By _____
President, Board of Directors

ATTACHMENT A

ZONE 7

WATER AGENCY

Treated Wholesale Water Rate Study

Executive Summary / September 2018



Executive Summary

Background of the Agency

The Zone 7 Water Agency (Agency) was established in 1957 to provide both untreated water to support agriculture and treated wholesale water to the Livermore-Amador Valley area. In 1961, the Agency contracted for State Water Project (SWP) water deliveries through the South Bay Aqueduct.

The Agency's water resources include imported water from the SWP, local groundwater storage, surface water captured in the Del Valle Reservoir, and offsite groundwater banking in Kern County. Historically, the majority of the Agency's water demand has been met by imported water from the SWP; approximately 80 percent of the current water demand is met through SWP water.

Through its four retail water suppliers (retailers) – the City of Pleasanton, Dublin San Ramon Services District, California Water Service Company, and City of Livermore – the Agency provides water service to a population of approximately 250,000. The Agency also provides treated wholesale water service to six direct customers – Lawrence Livermore Lab, Livermore Area Recreation and Park District (L.A.R.P.D.), Veterans Hospital, Wente Brothers Vineyard, the State of California Department of Water Resources (California DWR), and the East Bay Regional Park District.

Background of the Study

In 2018, the Agency engaged Raftelis to conduct a Treated Water Wholesale Rate Study (Study). Like many other utilities in California, the Agency is faced with financial challenges stemming from the water usage reductions due to increased conservation.

Historically, water usage projections from retailers and direct customers have been higher than actual water usage. The Agency currently relies on a variable charge per unit of water as its main source of rate revenue, encompassing approximately 65 percent of total rate revenue. The discrepancy between projected versus actual usage causes revenue shortfalls that negatively impact the financial sufficiency of the Agency's treated wholesale water enterprise.

The major objectives of the study include the following:

- Develop a financial plan for the treated wholesale water enterprise to ensure financial sufficiency, meet operation and maintenance (O&M) costs, fund capital projects, and develop sufficient reserve levels
- Develop a four-year rate structure that increases revenue stability while minimizing customer impacts
- Develop treated wholesale water rates that are fair and equitable to both the Agency's retailers and direct customers

This Executive Summary encompasses the key assumptions and inputs, various financial plan scenarios, financial recommendations, and proposed water rates that were developed in the Study.

Key Assumptions

The Study period uses the fiscal year (FY) 2019 budget as the base year. The model projects the financial plan through FY 2022, including calculated rate revenues, projected non-rate revenues and expenses, estimated capital

funding, and the resulting cash flow and reserve balance projections. The rates developed in this study will recover the Agency’s required revenue in calendar years (CY) 2019 through 2022 based on the data and assumptions contained in this report. The Agency will periodically review rates and take a measured approach with any potential revenue adjustments hereafter if any changed circumstances arise.

Certain cost escalation assumptions and inputs are incorporated into the Study to adequately project future costs. These assumptions are based on discussions with and/or direction from Agency staff. The escalation assumptions include inflation factors to project future O&M expenses and a Consumer Price Index (CPI) adjustment to rates. **Table 1** presents all inflationary assumptions; any other cost or revenue not shown in this chart are not inflated (for example, miscellaneous non-rate revenues are not inflated in future years).

Table 1: Inflationary Assumptions

Inflation Factors	FY 2019	FY 2020	FY 2021	FY 2022
General	3%	3%	3%	3%
Salary	3%	3%	3%	3%
Benefits	3%	3%	3%	3%
Utilities	5%	5%	5%	5%
Supplies	3%	3%	3%	3%
Capital	0%	0%	0%	0%
Energy	5%	5%	5%	5%
CPI for Rates	3%	3%	3%	3%

Agency staff worked with retailers and direct customers to determine the projected water demand for the Study period. **Table 2** shows the annual water demand projections for all customers in acre-feet (AF); **Table 3** shows the same projections in hundred cubic feet (ccf).

Table 2: Water Demand Projections (AF)

Water Sales Projections (AF)	FY 2019	FY 2020	FY 2021	FY 2022
City of Pleasanton	10,360	10,670	10,990	11,320
Dublin San Ramon Services District	10,090	10,390	10,700	11,020
California Water Service Company	6,390	6,580	6,780	6,980
City of Livermore	5,970	6,150	6,330	6,520
Lawrence Livermore Lab	300	300	300	300
L.A.R.P.D.	3	3	3	3
Veterans Hospital	120	120	120	120
Wente Brothers	32	32	32	32
State of California DWR	0	0	0	0
East Bay Regional Park District	17	17	17	17
Total Water Sales (AF)	33,282	34,262	35,272	36,312

Table 3: Water Demand Projections (ccf)

Water Sales Projections (ccf)	FY 2019	FY 2020	FY 2021	FY 2022
City of Pleasanton	4,512,816	4,647,852	4,787,244	4,930,992
Dublin San Ramon Services District	4,395,204	4,525,884	4,660,920	4,800,312
California Water Service Company	2,783,484	2,866,248	2,953,368	3,040,488
City of Livermore	2,600,532	2,678,940	2,757,348	2,840,112
Lawrence Livermore Lab	130,680	130,680	130,680	130,680
L.A.R.P.D.	1,307	1,307	1,307	1,307
Veterans Hospital	52,272	52,272	52,272	52,272
Wente Brothers	13,939	13,939	13,939	13,939
State of California DWR	0	0	0	0
East Bay Regional Park District	7,405	7,405	7,405	7,405
Total Water Sales (ccf)	14,497,639	14,924,527	15,364,483	15,817,507

Current Water Rates

The Agency's current treated wholesale water rates include a fixed charge per customer based on a two-year rolling average of water usage and a variable charge per ccf of water. The fixed charge recovers approximately 35 percent of rate revenue and the variable charge recovers the remaining 65 percent. **Table 4** shows the Agency's current rate structure for CY 2018 and beyond. The current rates for CY 2018 are multiplied with the CPI for Rates factor in **Table 1** to determine the water rates used to project revenues under the current rate structure in future years.

Table 4: Current Water Rates with CPI Increase

Current Rates	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Variable Charge (\$/ccf)	\$2.04	\$2.10	\$2.16	\$2.22	\$2.29
Annual Fixed Charge (all customers)	\$15,849,610	\$16,325,100	\$16,814,856	\$17,319,300	\$17,838,876

Reserve Policy

The Agency has a current reserve policy for Fund 100 (Operating Fund) that includes minimum, target, and maximum reserve levels. Fund 100 has four reserves: Operating, Drought Contingency, Emergency, and Rate Stabilization Reserves. The Operating Reserve mitigates against cash flow risks and unanticipated O&M expenses. The Drought Contingency Reserve prepares for potential droughts and the revenue shortfalls that come with such conditions. The Emergency Reserve helps protect the Agency from asset failures, emergencies, and natural disasters. The Rate Stabilization Reserve allows the Agency to stabilize rates during periods of increased expenses.

The current reserve policy in effect is as follows:

Operating Reserve

- Minimum: 60 days of O&M expenses
- Target: 90 days of O&M expenses
- Maximum: 120 days of O&M expenses

Drought Contingency Reserve

- Minimum: 5.0 percent of water sales revenue
- Target: 10.0 percent of water sales revenue
- Maximum: 20.0 percent of water sales revenue

Emergency Reserve

- Minimum: 2.0 percent of capital assets
- Target: 2.5 percent of capital assets
- Maximum: 3.0 percent of capital assets

Rate Stabilization Reserve

- Minimum: 10.0 percent of water sales revenue
- Target: 15.0 percent of water sales revenue
- Maximum: 20.0 percent of water sales revenue

Scenario Analyses

The Study involved an analysis of three financial plan scenarios. The three scenarios include the status quo and the two most likely cost scenarios. This section outlines the conditions of each scenario and presents the resulting financial plan and revenue adjustments.

SCENARIO 1: BASE CASE

Scenario 1 includes projected costs and capital funding based on budget input from Agency staff. Projected costs include salaries and benefits, purchased water, treatment chemicals, debt service, capital funding, additional water supply reliability project costs, and other miscellaneous expenses. The additional water supply reliability project costs include \$9.0 million from FY 2019 to FY 2022 and represent costs associated with additional water supply to increase reliability in future years. Scenario 1 represents the status quo and shows the Agency's financial standing if there were no additional revenue adjustments above the 3.0 percent CPI factor. **Table 5** shows the cash flow projections under Scenario 1.

The rate revenues (Lines 1-4) are calculated using the water demand projections for each FY in **Table 3** and the average of CPI inflated CY rates from **Table 4**. The FY variable charge is equal to the average of the two CY charges¹, equal to \$2.07 per ccf in FY 2019 (average of \$2.04 and \$2.10). The estimated FY 2019 variable charge is multiplied by the projections in **Table 3** to determine the volume-based rate revenue (Line 2). The fixed charge revenue (Line 3) in FY 2019 is equal to \$16,087,355, or the average between CY 2018 and CY 2019 fixed charges in **Table 4** (average of \$15,849,610 and \$16,325,100).

The expenses (Lines 11-16) include the projected O&M expenses from the Agency's budget (Line 12), additional water supply reliability costs (Line 13), and existing and proposed debt service (Lines 14-15). The Agency is not planning to issue debt during the Study period.

The net cash flow before capital funding is equal to the total revenues (Line 9) less total expenses (Line 16). The Accumulated Capital Outlay (ACO) transfer and capital funding are derived from data provided by Agency staff. The total net cash flow (Line 22) is equal to the net cash flow before capital funding (Line 18) less capital funding costs (Lines 19-20). The Fund 100 ending balance includes the net cash flow (Line 22). The Fund 100 reserve targets (excluding Rate Stabilization) are in line with the Agency's current reserve policy.

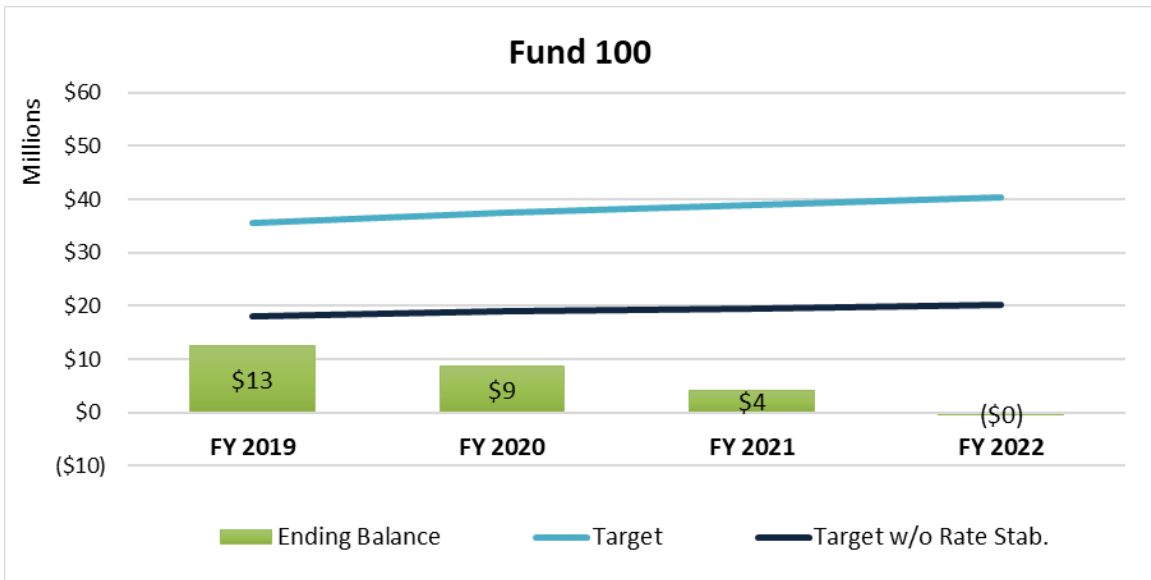
¹ FY 2019 is the period from July 2018 to June 2019, which incorporates half of the months in CY 2018 (July 2018 to December 2018) and half of the months in CY 2019 (January 2019 to June 2019). Therefore, the FY charge is estimated using the average of two CY charges.

Table 5: Cash Flow Projections (Scenario 1)

Line	Cash Flow Projections	FY 2019	FY 2020	FY 2021	FY 2022
1	Revenue				
2	Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
3	Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
4	Total Additional Revenue	\$0	\$0	\$0	\$0
5					
6	Total Rate Revenue	\$46,097,468	\$48,359,221	\$50,715,296	\$53,247,567
7	Investment Earnings	\$127,019	\$105,557	\$63,770	\$18,456
8	Other Revenue	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
9	Total Revenue	\$47,370,832	\$49,642,703	\$51,986,733	\$54,504,323
10					
11	Expenses				
12	O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
13	Water Supply Reliability Projects	\$1,500,000	\$2,000,000	\$2,500,000	\$3,000,000
14	Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
15	Proposed Debt Service	\$0	\$0	\$0	\$0
16	Total Expenses	\$35,842,318	\$40,647,573	\$42,861,183	\$45,146,551
17					
18	Net Cash Flow before Capital Funding	\$11,528,514	\$8,995,130	\$9,125,550	\$9,357,772
19	ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
20	Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
21					
22	Net Cash Flow	(\$968,892)	(\$4,000,198)	(\$4,381,458)	(\$4,681,383)
23					
24	Fund 100				
25	Ending Balance	\$12,567,960	\$8,567,762	\$4,186,304	(\$495,080)
26	Target (no Rate Stabilization)	\$17,974,479	\$18,909,392	\$19,567,781	\$20,260,773

Under Scenario 1, the Agency will have negative reserve levels in Fund 100 by the end of FY 2022. **Figure 1** shows the projected fund balances (green bars) with target reserve levels (blue line) and target reserve levels without the Rate Stabilization Reserve (black line).

Figure 1: Fund 100 Ending Balances (Scenario 1)



SCENARIO 2: INCREASE FUND 100

This scenario includes the same costs as Scenario 1. The goal of this financial plan scenario is to increase Fund 100 reserve levels to target levels (without Rate Stabilization Reserve) by the end of the study period in FY 2022. The estimated revenue adjustments for this scenario is 5.0 percent above 3.0 percent CPI adjustment for each year of the Study.

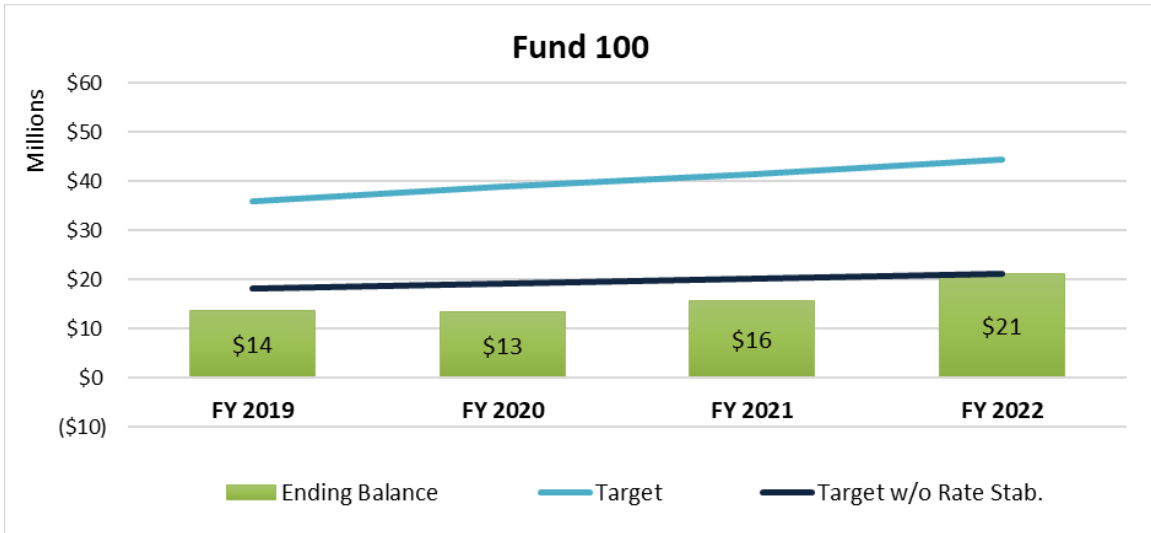
Table 6 shows the cash flow projections for Scenario 2. The total additional revenue (Line 4) is equal to a 5.0 percent revenue adjustment each year (above the 3.0 percent CPI increase), implemented in January of each FY.

Table 6: Cash Flow Projections (Scenario 2)

Line	Cash Flow Projections	FY 2019	FY 2020	FY 2021	FY 2022
1	Revenue				
2	Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
3	Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
4	Total Additional Revenue	\$1,152,437	\$3,687,391	\$6,596,158	\$9,934,166
5					
6	Total Rate Revenue	\$47,249,905	\$52,046,612	\$57,311,454	\$63,181,732
7	Investment Earnings	\$127,019	\$135,669	\$145,861	\$184,439
8	Other Revenue	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
9	Total Revenue	\$48,523,269	\$53,360,206	\$58,664,982	\$64,604,471
10					
11	Expenses				
12	O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
13	Water Supply Reliability Projects	\$1,500,000	\$2,000,000	\$2,500,000	\$3,000,000
14	Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
15	Proposed Debt Service	\$0	\$0	\$0	\$0
16	Total Expenses	\$35,842,318	\$40,647,573	\$42,861,183	\$45,146,551
17					
18	Net Cash Flow before Capital Funding	\$12,680,951	\$12,712,633	\$15,803,799	\$19,457,920
19	ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
20	Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
21					
22	Net Cash Flow	\$183,545	(\$282,695)	\$2,296,791	\$5,418,765
23					
24	Fund 100				
25	Ending Balance	\$13,720,397	\$13,437,701	\$15,734,492	\$21,153,257
26	Target (no Rate Stabilization)	\$18,089,723	\$19,278,131	\$20,227,396	\$21,254,190

Figure 2 shows the projected fund balances for Fund 100 for the Study period under Scenario 2. The black line represents the target reserve levels for Fund 100 without the Rate Stabilization Reserve requirement.

Figure 2: Fund 100 Ending Balances (Scenario 2)



SCENARIO 3: ADDITIONAL WATER SUPPLY RELIABILITY PROJECTS

This scenario includes the same costs as Scenarios 1 and 2, with an additional \$6.2 million in water supply reliability projects in FY 2021 and FY 2022. The goal of this scenario is the same as Scenario 2: increasing Fund 100 reserve levels to target without Rate Stabilization Reserve requirements. The estimated revenue adjustments for this scenario is 6.5 percent above the 3.0 percent CPI increase for each year of the Study.

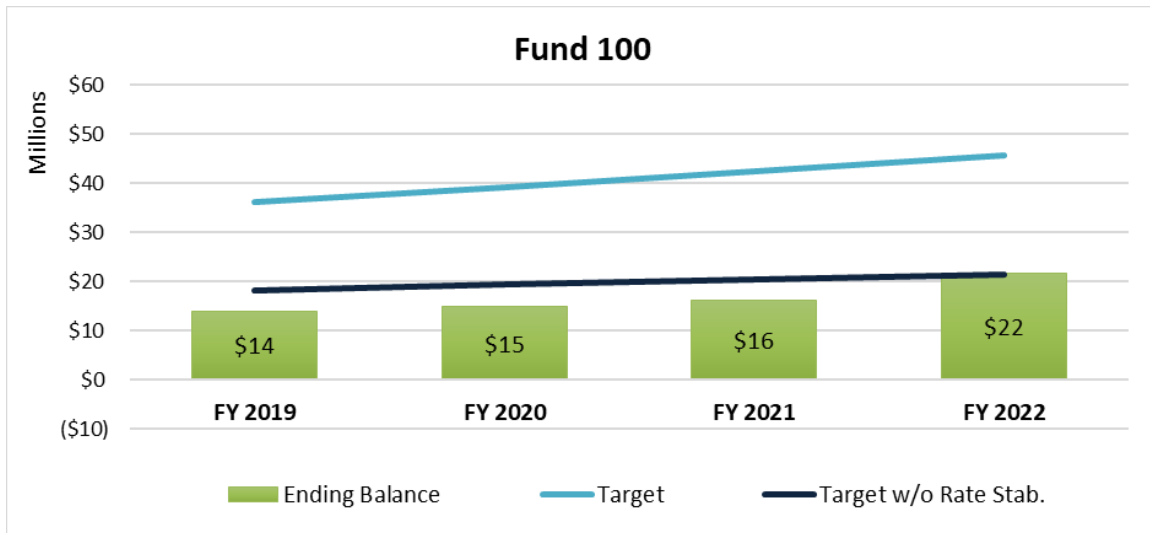
Table 7 shows the cash flow projections for Scenario 3. The total additional revenue (Line 4) is equal to a 6.5 percent revenue adjustment each year (above the 3.0 percent CPI increase), implemented in January of each FY. The water supply reliability projects (Line 13) include approximately \$6.2 million in additional costs in the last two years.

Table 7: Cash Flow Projections (Scenario 3)

Line	Cash Flow Projections	FY 2019	FY 2020	FY 2021	FY 2022
1	Revenue				
2	Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
3	Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
4	Total Additional Revenue	\$1,498,168	\$4,817,183	\$8,676,744	\$13,163,224
5					
6	Total Rate Revenue	\$47,595,636	\$53,176,404	\$59,392,040	\$66,410,791
7	Investment Earnings	\$127,019	\$144,821	\$156,162	\$190,621
8	Other Revenue	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
9	Total Revenue	\$48,869,000	\$54,499,150	\$60,755,868	\$67,839,711
10					
11	Expenses				
12	O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
13	Water Supply Reliability Projects	\$1,500,000	\$2,000,000	\$5,500,000	\$6,150,000
14	Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
15	Proposed Debt Service	\$0	\$0	\$0	\$0
16	Total Expenses	\$35,842,318	\$40,647,573	\$45,861,183	\$48,296,551
17					
18	Net Cash Flow before Capital Funding	\$13,026,682	\$13,851,577	\$14,894,685	\$19,543,160
19	ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
20	Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
21					
22	Net Cash Flow	\$529,276	\$856,249	\$1,387,677	\$5,504,005
23					
24	Fund 100				
25	Ending Balance	\$14,066,128	\$14,922,377	\$16,310,054	\$21,814,059
26	Target (no Rate Stabilization)	\$18,124,296	\$19,391,111	\$20,435,455	\$21,577,095

Figure 3 shows the projected fund balances for Fund 100 for the Study period under Scenario 3, with additional water supply reliability project costs.

Figure 3: Fund 100 Ending Balances (Scenario 3)



Recommendations

A discussion of the final recommendations and results should begin with reviewing the major objectives set forth in the beginning of the Study:

- Develop a financial plan to ensure financial sufficiency, meet O&M costs, fund capital projects, and develop sufficient reserve levels
- Develop a four-year rate structure that increases revenue stability while minimizing customer impacts
- Develop treated wholesale water rates that are fair and equitable

The financial plan scenarios in the previous section were analyzed carefully to determine the resulting financial and rate impacts of each scenario. Based on discussion with Agency staff, Scenario 3 represents the situation most likely to arise in future years. The additional water supply reliability costs, totaling approximately \$15.2 million in the four-year Study period, provide a contingency plan during periods of unreliable water supply.

Currently, 80 percent of water demand is met through SWP water. However, this demand can only be met if supply conditions for SWP are favorable. During unfavorable conditions, the Agency must purchase water from other sources which may drive up costs considerably. The funds used for additional water supply reliability projects will increase water supply reliability for the Agency.

The revenue adjustments proposed in Scenario 3 (3.0 percent CPI increase, with an additional 6.5 percent per year) produce sufficient revenues to ensure the utility's financial sufficiency and cover all costs. The Agency is expected to meet reserve targets without funding the Rate Stabilization Reserve. Although this is a reasonable approach to reduce customer impacts during this Study period, Raftelis recommends that the Agency fund the Rate Stabilization Reserve in the future to have the ability to stabilize rates in case of increased or unexpected expenses.

However, increasing revenues alone does not address another problem the Agency faces: revenue instability. Due to increased conservation over the past few years, fueled mainly by the five-year drought conditions in prior years and conservation mandates, there is a discrepancy between projected sales and actual sales. Agency staff receives projections from its customers, which are ultimately used to determine the variable charge. When actual sales are less than projected sales, there is a revenue shortfall. The Agency's costs, however, are mostly fixed; in instances of reduced revenue, the Agency must draw down reserves to offset the shortfall.

To address the issue of revenue instability, the proposed fixed revenue recovery percentages increase incrementally each year. The current fixed revenue recovery percentage is equal to 35.0 percent. Based on discussions with Agency staff, the fixed revenue percentage will increase to 45.0 percent by the end of the Study period, which is an increase of 2.5 percent each year. This incremental change in fixed revenue recovery will increase revenue stability over time and decrease potential customer bill impacts. By recovering a higher proportion of costs through the fixed charge, the Agency is better protected from fluctuations in water demand.

The final objective involves determining fair and equitable rates. The variable charge is divided proportionately between customers based on their water demand projections. The fixed charge is divided to each customer based on their two-year rolling average of water sales. For example, the fixed charge for CY 2019 is determined using the average of FY 2017 and FY 2018 water sales for each customer. Using a two-year rolling average serves to offset any yearly fluctuations in water demand, increase revenue stability for the Agency, and increase rate stability for its customers.

Proposed Water Rates

The proposed water rates are based on Scenario 3 costs and include the revenue adjustments of 6.5 percent over the 3.0 percent CPI increase. The revenue requirement, or the revenue to be recovered from rates, is equal to the total rate revenue amount in **Table 7**. The revenue requirement is based on FY, and the resulting rates are for CY.

For example, the calculated rates assume that the revenues recovered in the first half of FY 2019 are determined by CY 2018 rates. The remainder of the FY revenue requirement is used to calculate CY 2019 rates based on a half-year amount of demand. **Table 8** shows the proposed CY 2019 rates that have a 37.5 percent fixed revenue recovery percentage (an increase of 2.5 percent).

Table 8: Proposed Water Rates (CY 2019)

Proposed Rates	Current CY 2018	Proposed CY 2019
Variable Revenue Recovery	65.0%	62.5%
Variable Charge (\$/ccf)	\$2.04	\$2.07
Fixed Revenue Recovery	35.0%	37.5%
Annual Fixed Charge		
City of Pleasanton	\$4,748,097	\$6,066,782
Dublin San Ramon Services District	\$4,934,327	\$5,903,981
California Water Service Company	\$3,086,763	\$3,906,856
City of Livermore	\$2,917,197	\$3,432,146
Retailers	\$15,686,384	\$19,309,765
Lawrence Livermore Lab	\$127,329	\$473,295
L.A.R.P.D.	\$708	\$1,731
Veterans Hospital	\$20,552	\$41,686
Wente Brothers	\$11,279	\$11,362
State of California DWR	\$18	\$22
East Bay Regional Park District	\$3,340	\$9,261
Direct Customers	\$163,226	\$537,357
Total	\$15,849,610	\$19,847,122

Table 9 shows the proposed water rates for the entire Study period. The annual fixed charge amount shown is the total for all customers. The Agency will divide the fixed charge amount by the two-year rolling average as water sales data is updated each year.

Table 9: Proposed Water Rates

Proposed Rates	Current CY 2018	Proposed CY 2019	Proposed CY 2020	Proposed CY 2021	Proposed CY 2022
Fixed Revenue Recovery	35.0%	37.5%	40.0%	42.5%	45.0%
Annual Fixed Charge	\$15,849,610	\$19,847,122	\$22,694,011	\$27,789,233	\$31,980,488
Variable Revenue Recovery	65.0%	62.5%	60.0%	57.5%	55.0%
Variable Charge (\$/ccf)	\$2.04	\$2.07	\$2.21	\$2.24	\$2.38

Customer Impacts

A simple way of determining customer impacts is to determine the total charge per unit of water. The variable charge is already charged on a per ccf basis. The fixed charge can be translated to a “variable charge” by determining the weighted fixed charge per ccf of water from the estimated two-year rolling average.

Table 10 shows the resulting charges determined in **Table 9** as a total charge per ccf of water for all years of the Study.

Table 10: Proposed Water Rates as Variable Charge

Weighted Charges	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Variable Charge (\$/ccf)	\$2.04	\$2.07	\$2.21	\$2.24	\$2.38
Weighted Fixed Charge (\$/ccf)	\$1.14	\$1.35	\$1.51	\$1.81	\$2.02
Total Charge (\$/ccf)	\$3.18	\$3.42	\$3.72	\$4.05	\$4.40

Table 11 shows the proposed dollar amount impact to an average customer at different levels of usage derived from the weighted charges shown in **Table 10**.

Table 11: Customer Impacts

Customer Impacts	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Monthly Water Usage (ccf)	10	10	10	10	10
Variable Charges	\$20.40	\$20.70	\$22.10	\$22.40	\$23.80
Fixed Charges	\$11.39	\$13.51	\$15.11	\$18.08	\$20.21
Total Charges	\$31.79	\$34.21	\$37.21	\$40.48	\$44.01
Dollar Amount Difference		\$2.43	\$3.00	\$3.27	\$3.53
Monthly Water Usage (ccf)	15	15	15	15	15
Variable Charges	\$30.60	\$31.05	\$33.15	\$33.60	\$35.70
Fixed Charges	\$17.08	\$20.27	\$22.66	\$27.11	\$30.31
Total Charges	\$47.68	\$51.32	\$55.81	\$60.71	\$66.01
Dollar Amount Difference		\$3.64	\$4.49	\$4.90	\$5.30
Monthly Water Usage (ccf)	20	20	20	20	20
Variable Charges	\$40.80	\$41.40	\$44.20	\$44.80	\$47.60
Fixed Charges	\$22.77	\$27.02	\$30.21	\$36.15	\$40.41
Total Charges	\$63.57	\$68.42	\$74.41	\$80.95	\$88.01
Dollar Amount Difference		\$4.85	\$5.99	\$6.54	\$7.06

Table 12 summarizes the information in **Table 11** and provides a quick overview of customer impacts by average level of usage.

Table 12: Customer Impacts Summary

Dollar Amount Difference	CY 2019	CY 2020	CY 2021	CY 2022
10 ccf	\$2.43	\$3.00	\$3.27	\$3.53
15 ccf	\$3.64	\$4.49	\$4.90	\$5.30
20 ccf	\$4.85	\$5.99	\$6.54	\$7.06

ATTACHMENT B

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 17-81

INTRODUCED BY DIRECTOR PALMER
SECONDED BY DIRECTOR QUIGLEY

2017 Asset Management Plan Long-Term Funding Forecast Update and FY 2018/19 Ten-Year Water System Capital Improvement Plan

WHEREAS, HDR, Inc., prepared the 2017 Asset Management Plan Long-Term Funding Forecast Update (2017 AMP Update) to update renewal/replacement and system-wide improvement project costs and schedules over a forty-year horizon and to recommend the appropriate level of annual AMP funding; and

WHEREAS, staff has developed the Fiscal Year (FY) 2018-19 Ten-Year Water System Capital Improvement Plan, identifying the capital projects and programs needed to carry out the water system goals and policy objectives of the agency from FY 2018-19 through FY 2027-28, and incorporating the recommendations from the 2017 AMP Update.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District accepts the 2017 AMP Update with the revised annual AMP funding recommendations incorporated; and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District approves the AMP funding transfer from the Water Enterprise Operations Fund (Fund 100) to the Water Enterprise Renewal/Replacement & System-Wide Improvements Fund (Fund 120) as follows: \$12,300,000 in 2017 dollars beginning in FY 2018-19 with inflationary adjustments every year based on the Engineering News Record Construction Cost Index.

BE IT FURTHER RESOLVED that the the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District adopt the FY 2018-19 Ten-Year Water System Capital Improvement Plan.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, GRECI, PALMER, QUIGLEY, RAMIREZ HOLMES, STEVENS

NOES: NONE

ABSENT: DIRECTOR McGRAIL

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 18, 2017.

By: 
President, Board of Directors

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 18-74

INTRODUCED BY DIRECTOR STEVENS
SECONDED BY DIRECTOR QUIGLEY

Adoption of the Treated Water Service Rates for Calendar Years 2019, 2020, 2021, 2022

WHEREAS the Agency engaged an independent water rate consultant, Raftelis, to prepare a Cost of Service Study to identify the cost of providing wholesale treated water service and the study recommends a four-year rate schedule.

WHEREAS the study recommends gradually increasing fixed charge revenue recovery from 35% in calendar year (CY) 2018 to 45% by CY 2022.

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District to adopt the following treated water rate schedules for Calendar Years 2019, 2020, 2021, and 2022.

FIRST, a volume-based water delivery charge, per the table below for all metered water delivered to each customer per month per 100 cubic feet (CCF) for CY 2019, CY 2020, CY 2021 and CY 2022.

Calendar Year	2019	2020	2021	2022
Volume-based Rate per CCF	\$2.01	\$2.10	\$2.06	\$2.15

SECOND, gradually increasing fixed charge revenue recovery from 35% in CY 2018 to 45% by CY 2022 per the table below.

	CY 2019	CY 2020	CY 2021	CY 2022
Fixed Revenue Recovery	37.5%	40%	42.5%	45%

THIRD, a fixed charge of \$18,834,149 for Retailers and \$528,949 for Direct Customers for CY 2019 per the tables below. Actual Fixed Charge monthly billing will be 1/12 of the annual amount.

Fixed Charge per Retailer	CY 2019
City of Pleasanton	\$5,971,854
Dublin San Ramon Services District	\$5,811,601
California Water Service Company	\$3,672,251
City of Livermore	\$3,378,443
Total Retailer Fixed Charge	\$18,834,149

Fixed Charge per Direct Customer	CY 2019
Lawrence Livermore Lab	\$465,889
Veterans Hospital	\$41,034
Wente Brothers	\$11,184
East Bay Regional Park District	\$9,116
L.A.R.P.D.	\$1,704
State of California DWR	\$22
Total Direct Customer Fixed Charge	\$528,949

FOURTH, fixed charges per the table below for CY 2020, CY 2021 and CY 2022. The Total Fixed Charges for these years shall not be changed without Board approval, however the actual allocation among Retailers and Direct Customers may change based on updated two-year rolling average of proportional use. Actual Fixed Charge monthly billing will be 1/12 of the annual amount.

Calendar Year	2020	2021	2022
Total Retailer Fixed Charges	\$21,060,643	\$25,357,284	\$28,323,642
Total Direct Customer Fixed Charge	\$437,276	\$359,421	\$389,819
Total Fixed Charges	\$21,497,919	\$25,716,705	\$28,713,461

FIFTH, authorize the General Manager to the reallocate CY 2020, CY 2021 and CY 2022 Fixed Charge per Retailer and Direct Customer based on updated two-year rolling average of proportional use, to be determined at the end of FY 2018-19 for the CY 2020 charges, FY 2019-20 for the CY 2021 charges and FY 2020-21 for the FY 2022 charges.

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Recharge, Temporary Treated Water and In-Lieu services be adopted:

FIRST, for Recharge services a recharge fee per the table below for CY 2019, CY 2020, CY 2021 and CY 2022, which is the unit cost of replenishment water to achieve full cost of recovery when it is necessary to replenish the main groundwater basin when water is pumped in excess of a retailers Groundwater Pumping Quota or Independent Quota.

Calendar Year	2019	2020	2021	2022
Recharge Fee per AF	\$1,380	\$1,455	\$1,468	\$1,471

SECOND, the Temporary Treated Water service rate is equivalent to the treated water volume-based charge plus the weighted fixed charge per CCF. The rates for CY 2019, CY 2020, CY 2021 and CY 2022 are per the table below:

Calendar Year	2019	2020	2021	2022
Temporary Treated Water per AF	\$1,451	\$1,538	\$1,625	\$1,725

THIRD, for Temporary Treated Water service an initial service establishment charge \$162 per turnout for CY 2019, \$167 for CY 2020, \$172 for CY 2021 and \$177 for CY 2022 for each new direct connection to the Zone system; and

A monthly meter service charge of \$21.00 per turnout for CY 2019, CY 2020, CY 2021 and CY 2022; and

FOURTH, for In-Lieu water services, a water rate of \$103 for CY 2019, CY 2020, CY 2021 and CY 2022, authorize the General Manager of Zone 7 of Alameda County Flood Control and Water Conservation District to offer to any treated water contractor who takes delivery of treated water from Zone 7 in lieu of pumping groundwater per their Groundwater Pumping Quota should appropriate circumstances be identified; and Zone 7 may offer this rate to its treated water contractors who have a Groundwater Pumping Quota (GPQ) (including well pumping capacity) if sufficient surface water is available and if it is deemed financially and operationally prudent; and, In-Lieu quantities will be limited to each contractor's GPQ plus any accumulated carry-over.

BE IT FURTHER RESOLVED that said water rate schedules for all treated water service as adopted herein shall be effective on January 1, 2019 and shall end on the next effective date for such water rates as adopted by the Board.

BE IT FURTHER RESOLVED that the Board will revisit the rate schedule for calendar years 2021 and 2022, through a public process, with any changed rates adopted by November 2020.

BE IT FURTHER RESOLVED that the General Manager of Zone 7 of the Alameda County Flood Control and Water Conservation District is hereby authorized to continue to enter into, renew, modify and otherwise administer all Temporary Treated Water service agreements in accordance with said rate schedules adopted herein and as may be modified from time to time.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS GAMBS, QUIGLEY, PALMER, STEVENS

NOES: DIRECTORS SANWONG, RAMIREZ HOLMES, FIGUERS

ABSENT: NONE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on October 17, 2018.

By


President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: ADMINISTRATION

CONTACT PERSON: Osborn Solitei

AGENDA DATE: October 19, 2016

ITEM NO: 10

SUBJECT: Untreated Water Rates for 2017

SUMMARY:

- The Untreated Water Rate is essentially a pass-through of the cost of imported water, supplemental water purchases, Bay-Delta related costs and an administrative fee.
- The proposed rate of \$113 acre-foot (AF) is a decrease from the current rate of \$130/AF.
- The following table shows all of the proposed untreated water rates for calendar year 2017:

2017 Proposed Rates	A/F
Proposed untreated water rate	\$113
Proposed temporary untreated water rate	\$628
Proposed non-scheduled untreated water rate	\$628
Proposed surplus untreated water	\$239

FUNDING:

The proposed rates determine the amount of revenue from untreated water sales as a part of operating the Water Enterprise (Fund 100), which equates to approximately \$678,000 if the projected demand of 6,000 AF is realized.

RECOMMENDED ACTION:

Adopt the attached resolution to approve, for 2017, an Untreated Water rate of \$113/AF, a Temporary Untreated Water rate of \$628/AF, a Non-Scheduled Untreated Water rate of \$628/AF, and a Surplus Untreated Water rate of \$239/AF.

ATTACHMENTS:

Background Memo

Proposed Untreated & Temporary Untreated Water Calculation Tables

Resolution

Attachment A - Untreated Water Rate History



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

MEMORANDUM

DATE: October 19, 2016
TO: Jill Duerig, General Manager
FROM: Osborn Solitei, Assistant General Manager, Finance

SUBJECT: Untreated Water Rate Schedules for 2017

SUMMARY:

The following table shows all of the proposed untreated water rates for calendar year 2017:

2017 Proposed Rates	A/F
Proposed untreated water rate	\$113
Proposed temporary untreated water rate	\$628
Proposed non-scheduled untreated water rate	\$628
Proposed surplus untreated water	\$239

BACKGROUND/DISCUSSION:

Untreated – The Untreated Water Rate is based on the cost of imported water, supplemental water purchases, Bay-Delta related costs and an administrative fee. The administrative fee is actual staff time spent on administering the untreated water program. The labor is calculated based on the number of hours individual staff work on untreated water-related projects divided by the volume of water. The proposed rate of \$113 per AF is a decrease from the current rate of \$130 per AF. The decrease is primarily based on the lack of plans to recover water from Cawelo Water District this year and the taking of less water from Semitropic.

Temporary Untreated – The need for temporary services results from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. The temporary untreated water rate is based on the estimated cost of imported water and supplemental water purchases divided by the estimated customer deliveries minus the estimated available water from the Del Valle reservoir plus an administrative fee based on actual staff costs and Bay-Delta related costs. The proposed rate for temporary untreated water is \$628 per AF or \$1.93 per 1,000 gallons.

Non-Scheduled Untreated Water – Non-scheduled water is all untreated water deliveries exceeding scheduled deliveries by more than 10% in any year. It is based upon the temporary untreated water rate. The proposed rate for non-scheduled untreated water is \$628 per AF.

Surplus Untreated – Surplus untreated water deliveries are available only in years when the supplies exceed our customers' demands. Tentative surplus water delivery requests are submitted to Zone 7 by March 15 of each year; availability of surplus water is determined in April; and actual deliveries are announced in May. The rate fluctuates depending on the source of the surplus. The surplus untreated water rate is based on the estimated unit costs of Byron Bethany Irrigation District water, the Department of Water Resources water and Bay-Delta related costs. The proposed rate is \$239 per AF.

RECOMMENDED ACTION:

Adopt the attached resolution to approve, for 2017, an Untreated Water rate of \$113/AF, a Temporary Untreated Water rate of \$628/AF, a Non-Scheduled Untreated Water rate of \$628/AF, and a Surplus Untreated Water rate of \$239/AF

Zone 7 Water Agency Proposed Untreated Water Rate Calculation for 2017		
(A) Volume of Treated and Untreated Water to be Delivered to Contractors (in AF)		37,944
Water Costs	Dollar Amt	per AF
1. Byron - Bethany Irrigation District (BBID) (1,000 AF x \$90)	\$90,000	\$2.37
2. Yuba/Dry Year Water Purchase Program (500 AF x \$500)	\$250,000	\$6.59
3. Multi-Year Pool Water Purchase Program (0 AF x \$300)	\$0	\$0.00
4. Cawelo (0 AF x \$200)	\$0	\$0.00
5. Semitropic (6,600 AF x \$200)	\$1,320,000	\$34.79
6. Del Valle Water Rights	\$3,000	\$0.08
7. Unit Fixed Cost (1+2+3+4+5+6) ÷ (A)	\$1,663,000	\$43.83
8. SWP Transportation Variable Unit Cost	\$2,105,510	\$55.49
9. Subtotal Unit Cost (7+8)	\$3,768,510	\$99.32
10. Zone 7 Administrative costs	\$319,684	\$8.43
11. Bay-Delta Related Costs	\$209,607	\$5.52
12. Total Unit Cost (9+10+11) rounded to nearest dollar)	\$4,297,801	\$113

Zone Water Agency Proposed Temporary Untreated Water Rate Calculation for 2017	
1. Volume of Treated & Untreated Water estimated to be delivered to Contractors (A/F)	37,944
Estimated Expenses	Amount
2. a) State Water Supply	\$19,511,796
b) Off-Aqueduct Power Facilities	\$26,609
c) Variable Transportation Water Charges	\$2,105,510
d) Cawelo	\$0
e) Semitropic	\$1,320,000
f) Byron Bethany Irrigation District	\$90,000
g) Yuba Dry Year Purchase Program	\$250,000
3. Total Expenses	\$23,303,915
4. Unit Cost per AF(3 ÷ 1)	\$614.17
5. Zone 7 Staff costs per AF	\$8.43
6. Bay-Delta Related Costs per AF	\$5.52
7. Total Unit Cost (4+5+6) in \$ per AF	\$628
Or in \$ per 1,000 gallons (rounded to nearest dollar)	\$1.93

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

Adoption of the Untreated Water Rates for 2017

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, Non-Scheduled Untreated, and Surplus Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a DELIVERY CHARGE of \$113 per acre-foot for all metered water delivered to each customer per month.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21 per turnout; and

A charge of \$628 per AF or \$1.93 per 1000 gallons for temporary untreated water service for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$628 per acre-foot for all non-scheduled untreated water delivered to each customer.

FOURTH, for Surplus Untreated Water Service, a delivery charge of \$239 per acre-foot for all surplus untreated water delivered to each customer.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, shall be effective on January 1, 2017, and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

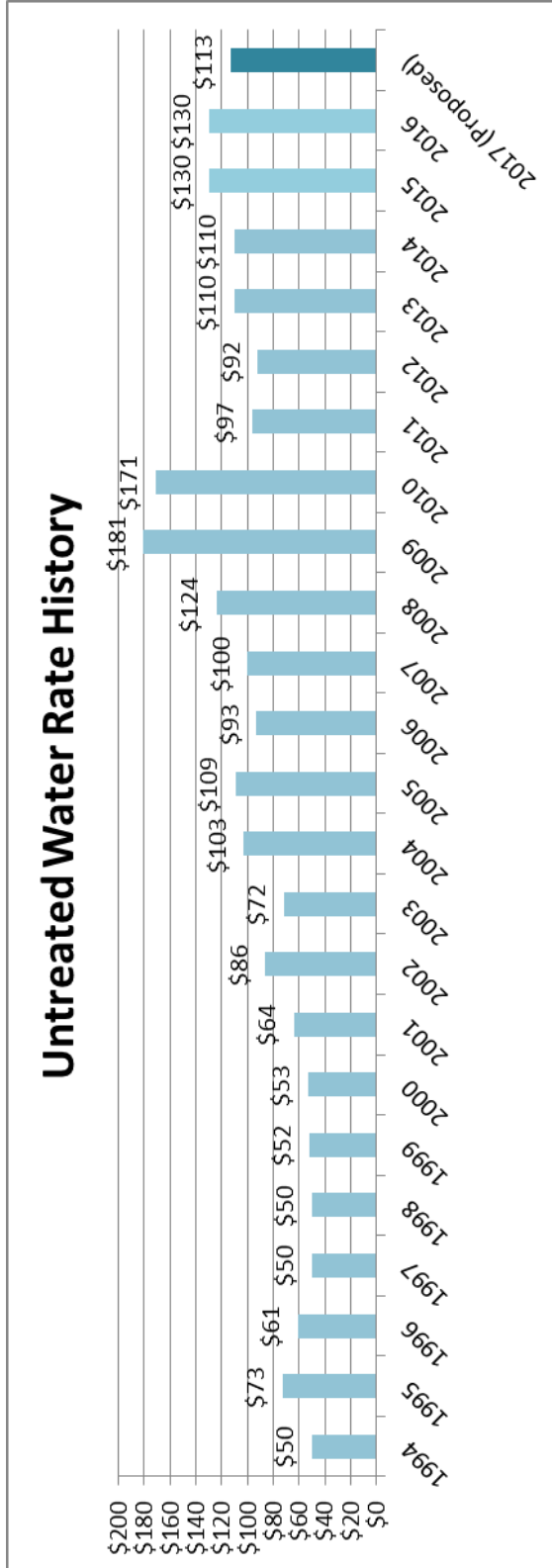
ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 19, 2016.

By _____
President, Board of Directors

ATTACHMENT A



ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 16-171

INTRODUCED BY DIRECTOR McGRAIL
SECONDED BY DIRECTOR GRECI

Adoption of the Untreated Water Rates for 2017

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, Non-Scheduled Untreated, and Surplus Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a DELIVERY CHARGE of \$113 per acre-foot for all metered water delivered to each customer per month.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21 per turnout; and

A charge of \$628 per AF or \$1.93 per 1000 gallons for temporary untreated water service for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$628 per acre-foot for all non-scheduled untreated water delivered to each customer.

FOURTH, for Surplus Untreated Water Service, a delivery charge of \$239 per acre-foot for all surplus untreated water delivered to each customer.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, shall be effective on January 1, 2017, and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, GRECI, McGRAIL, PALMER,
RAMIREZ HOLMES, QUIGLEY

NOES: NONE

ABSENT: DIRECTOR STEVENS

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 19, 2016.

By 
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: ADMINISTRATIVE SERVICES
CONTACT PERSON: Osborn Solitei

AGENDA DATE: October 18, 2017

ITEM NO: 12

SUBJECT: Untreated Water Rate Schedules for 2018

SUMMARY:

- The Untreated Water Rate is essentially a pass-through of the cost of imported water, supplemental water purchases, Bay-Delta related costs and an administrative fee.
- The proposed rate of \$129 acre-foot (AF) is an increase from the current rate of \$113/AF.
- The following table shows all of the proposed untreated water rates for calendar year 2018:

2018 Proposed Rates	\$/AF
Proposed untreated water rate	\$129
Proposed temporary untreated water rate	\$837
Proposed non-scheduled untreated water rate	\$837
Proposed surplus untreated water	\$240

FUNDING:

The proposed rates determine the amount of revenue from untreated water sales as a part of operating the Water Enterprise (Fund 100), which equates to approximately \$709,500 if the projected demand of 5,500 AF is realized.

RECOMMENDED ACTION:

Adopt the attached resolution to approve, for 2018, an Untreated Water rate of \$129/AF, a Temporary Untreated Water rate of \$837/AF, a Non-Scheduled Untreated Water rate of \$837/AF, and a Surplus Untreated Water rate of \$240/AF.

ATTACHMENTS:

Background Memo
Proposed Untreated & Temporary Untreated Water Calculation Tables
Resolution
Attachment A - Untreated Water Rate History



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

MEMORANDUM

DATE: October 18, 2017
TO: Jill Duerig, General Manager
FROM: Osborn Solitei, Treasurer/Assistant General Manager – Finance

SUBJECT: Untreated Water Rate Schedules for 2018

SUMMARY:

The following table shows all of the proposed untreated water rates for calendar year 2018:

2018 Proposed Rates	\$/AF
Proposed untreated water rate	\$129
Proposed temporary untreated water rate	\$837
Proposed non-scheduled untreated water rate	\$837
Proposed surplus untreated water	\$240

BACKGROUND/DISCUSSION:

Untreated – The Untreated Water Rate is based on the cost of imported water, supplemental water purchases, Bay-Delta related costs and an administrative fee. The administrative fee is actual staff time spent on administering the untreated water program. The labor is calculated based on the number of hours individual staff work on untreated water-related projects divided by the volume of water. The proposed rate of \$129 per AF is an increase from the current rate of \$113 per AF. The increase is primarily based on water transfer costs.

Temporary Untreated – The need for temporary services results from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. The temporary untreated water rate is based on the estimated cost of imported water and supplemental water purchases divided by the estimated customer deliveries minus the estimated available water from the Del Valle reservoir plus an administrative fee based on actual staff costs and Bay-Delta related costs. The proposed rate for temporary untreated water is \$837 per AF or \$2.57 per 1,000 gallons.

Non-Scheduled Untreated Water – Non-scheduled water is all untreated water deliveries exceeding scheduled deliveries by more than 10% in any year. It is based upon the temporary untreated water rate. The proposed rate for non-scheduled untreated water is \$837 per AF.

Surplus Untreated – Surplus untreated water deliveries are available only in years when the supplies exceed our customers' demands. Tentative surplus water delivery requests are submitted to Zone 7 by March 15 of each year; availability of surplus water is determined in April; and actual deliveries are announced in May. The rate fluctuates depending on the source of the surplus. The surplus untreated water rate is based on the estimated unit costs of Byron Bethany Irrigation District water, the Department of Water Resources water and Bay-Delta related costs. The proposed rate is \$240 per AF.

RECOMMENDED ACTION:

Adopt the attached resolution to approve, for 2018, an Untreated Water rate of \$129/AF, a Temporary Untreated Water rate of \$837/AF, a Non-Scheduled Untreated Water rate of \$837/AF, and a Surplus Untreated Water rate of \$240/AF.

Zone 7 Water Agency Proposed Untreated Water Rate Calculation for 2018		
(A) Volume of Treated and Untreated Water to be Delivered to Contractors (in AF)		37,167
Water Costs	Dollar Amt.	per AF
1. Water Transfer Costs	\$1,228,000	\$33.04
2. Yuba/Dry Year Water Purchase Program (200 AF x \$50)	\$10,000	\$0.27
3. Multi-Year Pool Water Purchase Program (0 AF)	\$0	\$0.00
4. Cawelo (0 AF)	\$0	\$0.00
5. Semitropic (5,000 AF X 200)	\$1,000,000	\$26.91
6. Del Valle Water Rights	\$3,000	\$0.08
7. Unit Fixed Cost (1+2+3+4+5+6) ÷ (A)	\$2,241,000	\$60.30
8. SWP Transportation Variable Unit Cost	\$2,079,122	\$55.94
9. Subtotal Unit Cost (7+8)	\$4,320,122	\$116.24
10. Zone 7 Administrative costs	\$267,972	\$7.21
11. Bay-Delta Related Costs	\$209,056	\$5.62
12. Total Unit Cost (9+10+11) rounded to nearest dollar)	\$4,797,150	\$129

Zone Water Agency Proposed Temporary Untreated Water Rate Calculation for 2018	
1. Volume of Treated & Untreated Water estimated to be delivered to Contractors (AF)	37,167
Estimated Expenses	Amount
2. a) State Water Supply	\$26,276,328
b) Off-Aqueduct Power Facilities	\$23,083
c) Variable Transportation Water Charges	\$2,079,122
d) Cawelo	\$0
e) Semitropic	\$1,000,000
f) Water Transfer Costs	\$1,228,000
g) Yuba Dry Year Purchase Program	\$10,000
3. Total Expenses	\$30,616,533
4. Unit Cost per AF (Total Expenses/Estimated Deliveries)	\$823.76
5. Zone 7 Staff costs per AF	\$7.21
6. Bay-Delta Related Costs per AF	\$5.62
7. Total Unit Cost (4+5+6) in \$ per AF Or in \$ per 1,000 gallons	\$837 \$2.57

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

Adoption of the Untreated Water Rates for 2018

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, Non-Scheduled Untreated, and Surplus Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a DELIVERY CHARGE of \$129 per acre-foot for all metered water delivered to each customer per month.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21 per turnout; and

A charge of \$837 per AF or \$2.57 per 1000 gallons for temporary untreated water service for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$837 per acre-foot for all non-scheduled untreated water delivered to each customer.

FOURTH, for Surplus Untreated Water Service, a delivery charge of \$240 per acre-foot for all surplus untreated water delivered to each customer.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, shall be effective on January 1, 2018, and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

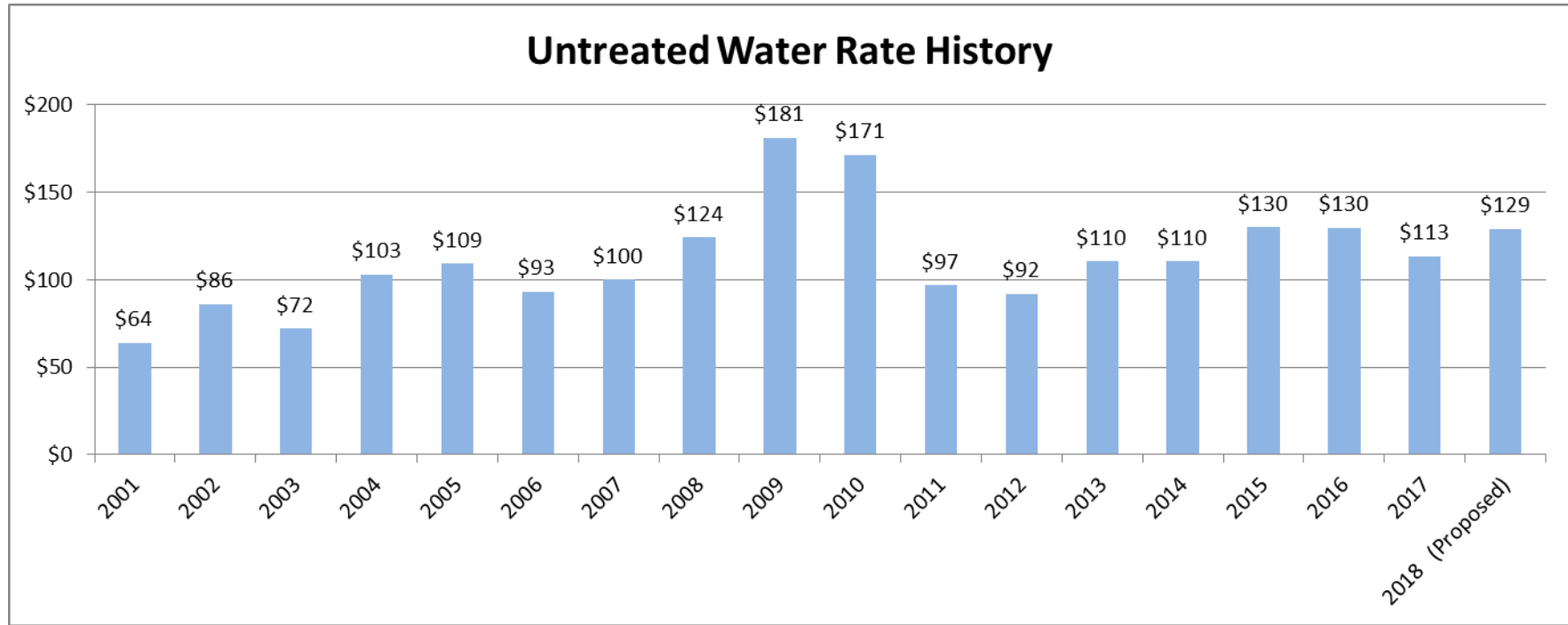
ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 18, 2017.

By _____
President, Board of Directors

ATTACHMENT A – UNTREATED WATER RATE REVENUE HISTORY



ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 17-83

INTRODUCED BY DIRECTOR QUIGLEY
SECONDED BY DIRECTOR STEVENS

Adoption of the Untreated Water Rates for 2018

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, Non-Scheduled Untreated, and Surplus Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a DELIVERY CHARGE of \$129 per acre-foot for all metered water delivered to each customer per month.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21 per turnout; and

A charge of \$837 per AF or \$2.57 per 1000 gallons for temporary untreated water service for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$837 per acre-foot for all non-scheduled untreated water delivered to each customer.

FOURTH, for Surplus Untreated Water Service, a delivery charge of \$240 per acre-foot for all surplus untreated water delivered to each customer.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, shall be effective on January 1, 2018, and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, GRECI, QUIGLEY, RAMIREZ HOLMES, STEVENS

NOES: NONE

ABSENT: DIRECTOR McGRAIL

ABSTAIN: DIRECTOR PALMER

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 18, 2017.

By 
President, Board of Directors

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 18-75

INTRODUCED BY DIRECTOR STEVENS
SECONDED BY DIRECTOR QUIGLEY

Adoption of the Untreated Water Rates for 2019

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, and Non-Scheduled Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a DELIVERY CHARGE of \$167 per acre-foot for all metered water delivered to each customer per month.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21 per turnout; and

A charge of \$860 per AF or \$2.64 per 1000 gallons for temporary untreated water service for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$860 per acre-foot for all non-scheduled untreated water delivered to each customer.

FOURTH, eliminate the Surplus Untreated Water Service rate.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, shall be effective on January 1, 2019, and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

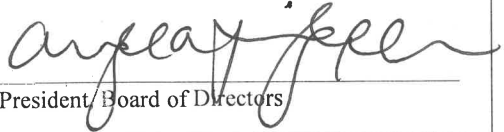
AYES: DIRECTORS FIGUERS, GAMBS, PALMER, QUIGLEY, RAMIREZ HOLMES, SANWONG, STEVENS

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 17, 2018.

By 
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: ADMINISTRATIVE SERVICES

CONTACT PERSON: Osborn Solitei

AGENDA DATE: October 17, 2018

ITEM NO. 10

SUBJECT: Untreated Water Rate Schedules for 2019

SUMMARY:

- To determine the untreated water rate for calendar year 2019, Zone 7 contracted with Raftelis Financial Consultants, Inc. (Raftelis) to conduct a cost of service study for untreated water service for the first time, in parallel with the cost of service study for treated water rates.
- The analysis determined the untreated water rates required to adequately recover the costs of the untreated water program. The proposed untreated water rates are based on a similar methodology applied to previous rates, but with additional cost components related to overall water supply management for the entire service area.
- Staff met with untreated water customers on September 11, 2018 to share the study findings and to get feedback on the preliminary rate. A few refinements were made based on comments received.
- Staff presented the preliminary 2019 Untreated Water Rate to the Finance Committee on September 18, 2018 and the Committee supported staff's recommendation to forward to the full Board for adoption, with an effective date of January 1, 2019.
- The following table shows all of the proposed untreated water rates for calendar year 2019:

Proposed 2019 Untreated Water Rates	\$/AF
Untreated water rate	\$167
Proposed temporary untreated water rate	\$860
Proposed non-scheduled untreated water rate	\$860

FUNDING:

The proposed rates determine the amount of revenue from untreated water sales as a part of operating the Water Enterprise (Fund 100), which equates to approximately \$918,500 if the projected demand of 5,500 AF is realized.

RECOMMENDED ACTION:

Adopt the attached resolution.

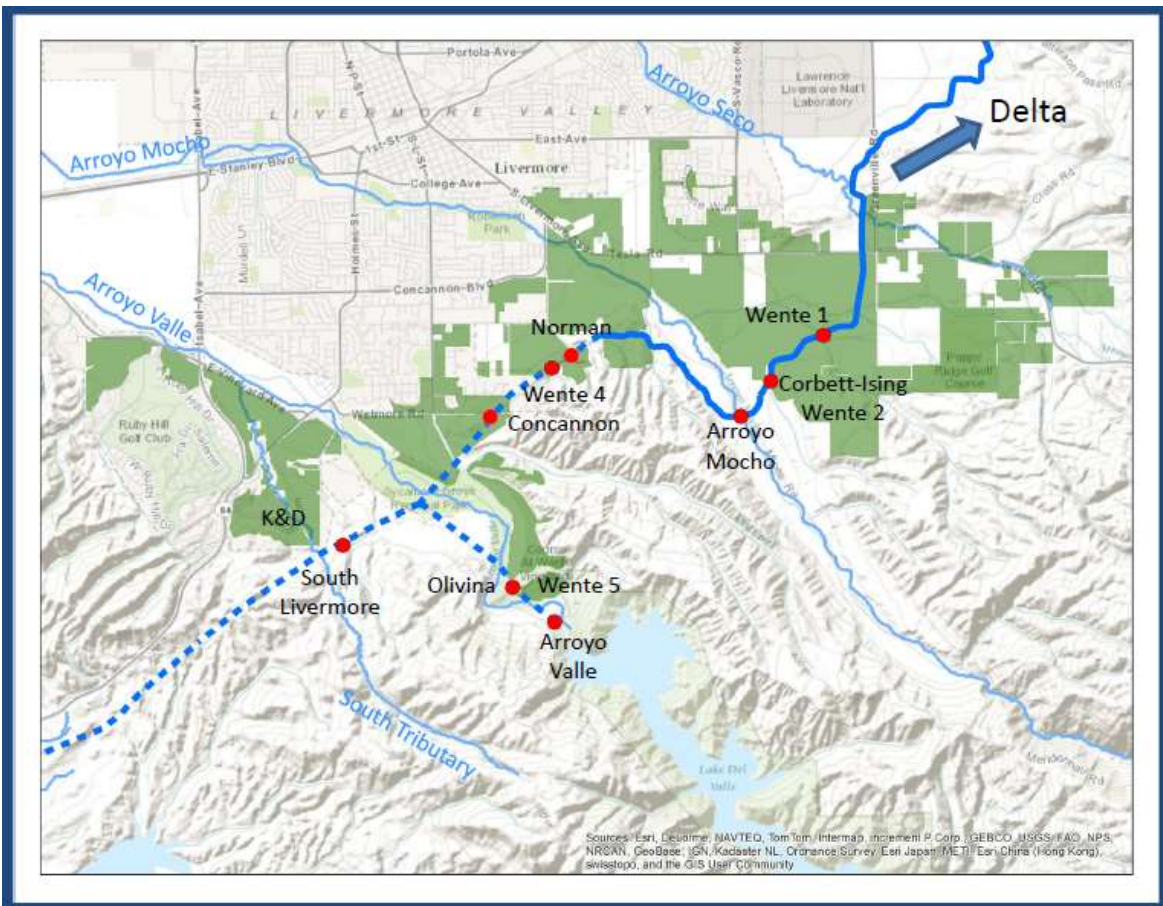
BACKGROUND/DISCUSSION:

Untreated Water Service

Untreated water deliveries to the Zone 7 service area from the California Department of Water Resources (DWR) via the South Bay Aqueduct (SBA) began in 1962. Over the years, deliveries increased with the agricultural development of South Livermore. Zone 7 provides untreated water service to 81 untreated water users who, collectively, may request water deliveries of up to 8,104 acre-feet per year.

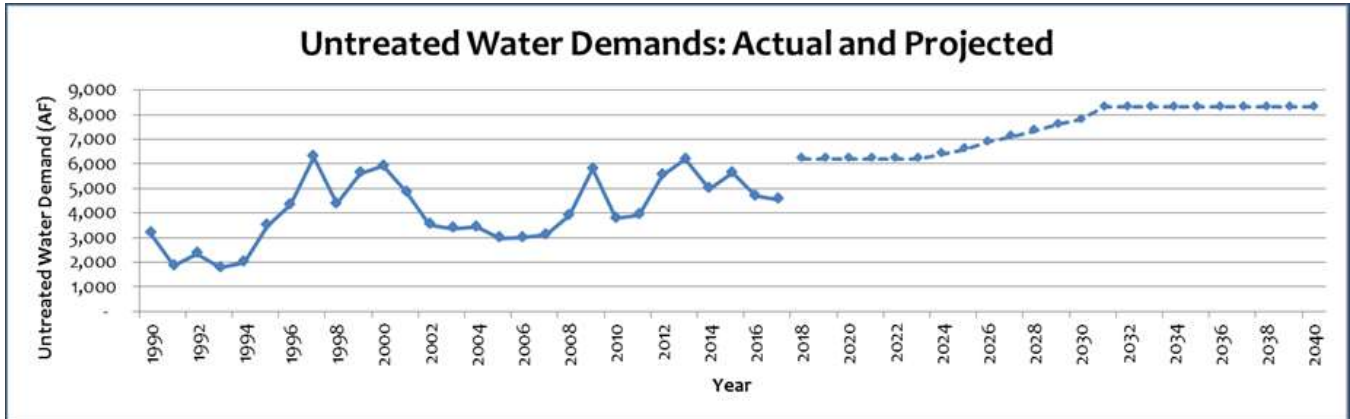
While historically Zone 7 has untreated water contracts with 81 separate water users, only seven of these contractors receive Zone 7 water directly from an SBA turnout. These water users are referred to as “turnout water users.” The remaining 74 “remote water users” receive their water deliveries through the turnout water users’ respective conveyance facilities. Zone 7’s practice has been to invoice the seven turnout water users for all water delivered through the SBA turnouts, which includes water wheeled (delivered through their facilities) to remote water users. The turnout water users, in turn, invoice the respective individual remote water users.

The map below shows the untreated water turnouts and delivery via the South Bay Aqueduct.



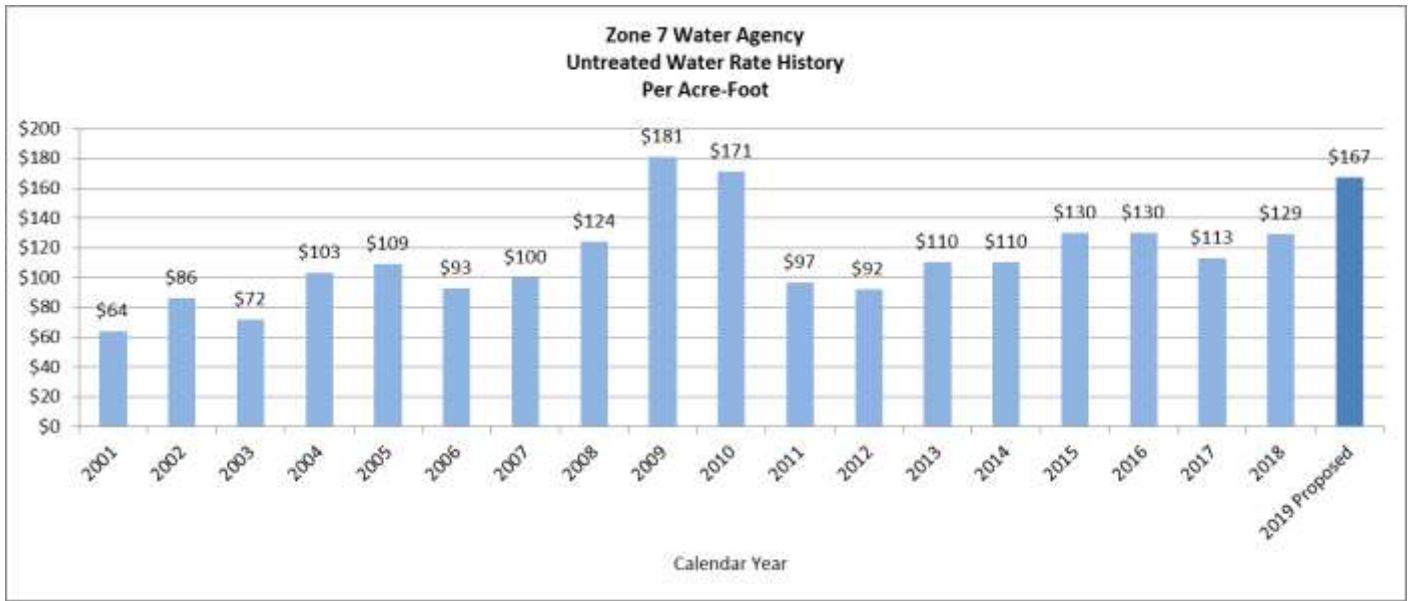
In 2011, Zone 7 transitioned from individual contracts with separate users to Rules and Regulations Governing Water Service. The Rules and Regulations Governing Untreated Water Service reflect Zone 7's actual relationship with the untreated water users, and allows Zone 7 to efficiently administer the untreated water program. The Rules and Regulations retain and clearly document the maximum annual allocation amount for each water user and provide a process for water transfers within Zone 7's service area.

A history of untreated water deliveries is shown in the figure below, along with projected future deliveries.



Untreated Water Rates

Zone 7 recovers the cost of providing untreated water service through untreated water rates. The current rate is \$129 per acre-foot of water delivered, billed on a monthly basis. The table below shows a history of untreated water rates and the proposed rate for CY 2019.



Historically, the Untreated Water Rate is based on the cost of imported water, supplemental water purchases, Bay-Delta related costs and an administrative fee. The administrative fee is based on actual staff labor spent on administering the untreated water program. The labor is calculated based on the number of hours individual staff work on untreated water-related projects divided by the volume of water.

Cost of Service Study

To determine the untreated water rate for 2019, Zone 7 contracted with Raftelis Financial Consultants, Inc. (Raftelis) to conduct a cost of service study for untreated water service for the first time, in parallel with the cost of service study for treated water rates. Raftelis is an industry leader in utility rate studies and has performed the 2015 and 2018 rate studies for Zone 7’s wholesale treated water enterprise.

The analysis determined the untreated water rates required to adequately recover the costs of the untreated water program. The proposed untreated water rates are based on a similar methodology applied to previous rates. Based on the cost of service study analysis, additional cost components are included to encompass Zone 7’s entire water supply portfolio, which includes local water, State Water Project supplies, water transfers, local groundwater and offsite groundwater banking programs. Maintaining a diverse water supply portfolio ensures there are adequate supplies to meet the demands of both treated and untreated customers. For example, use of local and offsite groundwater supplies allows Zone 7 to deliver surface water from the South Bay Aqueduct to untreated water customers during droughts or under emergencies while meeting municipal and industrial demands with groundwater. The change in the proposed 2019 rate stem from these additional components, current water supply conditions, operational plan for 2019, overhead and supply costs.

Zone 7 Water Supply Portfolio

The sources described below are used to meet treated water demands from municipal and industrial customers (retailers and direct retail) and untreated water demands from agricultural customers. Excess surface water supplies are placed into storage either locally or remotely for future use as needed. The 2019 Water Supply Operations Plan identifies the subset of supplies available and needed to meet the following year’s projected demands. Costs for these supplies are included in the rate calculation for both treated and untreated water customers.

WATER SUPPLY	DESCRIPTION
Table A	This source is Zone 7’s portion of the SWP annual allocation and represents the largest portion of Zone 7’s ‘new’ water each year. Zone 7’s maximum allocation is 80,619 acre-feet (AF) annually. The projected long-term average allocation is 62% or about 50,000 AF; in the last ten years, the average has been closer to 40,000 AF.
Article 21	This is SWP surplus water that is made available, in addition to Table A water, when there is SWP water available that cannot be stored in San Luis Reservoir because it is full.
Turnback Pool	This is water made available by other SWP contractors who wish to sell excess supply.
BBID	Whenever BBID has surplus supply, water can be made available through a transfer agreement with BBID, a non-SWP contractor, subject to approvals by the Department of Water Resources (DWR) and the Bureau of Reclamation. The amount varies up to 5,000 AF annually. For planning purposes, BBID water is presumed unavailable this year.

WATER SUPPLY	DESCRIPTION
Lake Del Valle (Local Water):	Zone 7 has a water right for Arroyo Valle water captured in Lake Del Valle, which becomes available for use once it has been stored for 30 days. The annual average yield of this source is 7,300 AF. Water captured in Lake Del Valle during the current year needs to be used within the following year.
Yuba Accord	This water is available mostly in dry years through agreement with DWR and Yuba County Water Agency. Zone 7 gets about 1% of available water.
Dry Year Transfer Program	During dry years, the State Water Contractors negotiate water purchases with farmers north of the Delta and makes that water available to interested SWP contractors.
Local Groundwater	Zone 7 recharges the Livermore Valley groundwater basin with surface water and uses groundwater for peaking, dry years, and emergencies. Zone 7 only pumps what it has stored; over the last fifteen years, the average Zone 7 recharge is 8,000 AF per year, with the long-term average groundwater pumping rate at 7,300 AF per year. The estimated maximum pumping capacity is 34,000 AF per year. The basin has 126,000 AF of operational storage capacity, which is the storage capacity above historical lows.
Article 56 (Carryover)	This is unused annual allocation of Table A water, which rolls over as carryover for use in future years by individual SWP contractors. In most years this water remains in San Luis Reservoir, but in wet years such as 2017, as the reservoir fills due to available Delta pumping and DWR needs more storage capacity, this water is gradually converted to SWP water and is lost to Zone 7. When this happens, Article 21 water (see above) is offered to the SWP contractors as surplus water. Each year, Zone 7 typically reserves 10,000-15,000 AF as carryover to provide a buffer against varying Table A allocation.
Offsite Groundwater Banks	Zone 7 has agreements with Semitropic Water Storage District and Cawelo Water District in Kern County for 78,000 AF and 120,000 AF of storage capacity, respectively. Zone 7 recovers water from these banks when needed during dry years (e.g., in 2014 and 2015). Recovered water is delivered via exchange through the SBA as surface water conveyed through the Delta.

Zone 7 Staff Costs Related to Water Supply Management

Zone 7 is committed to providing a reliable supply of high quality water for municipal, industrial and agricultural (untreated) customers. In doing so, staff spends a considerable amount of time managing the Agency's water supply portfolio. The programs applicable to the untreated water program are described in detail below. Note that the programs in italics have been added to the untreated water rate calculation for 2019 based on the cost of service study findings.

PROGRAM	DESCRIPTION
Untreated Water Program	Execution, management, and administration of the Untreated Water Program.
<i>Water Utility Planning</i>	Operational planning of water supply and the water utility and day-to-day water supply management activities.
<i>Supply Source & Conveyance Administration</i>	General administration and support related to the Supply Source & Conveyance Program.

PROGRAM	DESCRIPTION
State Water Project	Administration of the State Water Project.
Byron Bethany Irrigation District	Administration of the BBID contract and BBID water purchases.
<i>Bay Delta</i>	<i>Administration related to the Bay Delta, including Bay Delta Conservation Plan , Delta Habitat Conveyance and Conservation Program and now the CalWater Fix.</i>
<i>Local Water Rights</i>	<i>Acquisition, maintenance, and renewal of local water rights.</i>
Other Water Supplies	Evaluation of water supplies not specific to SWP, BBID, and Bay Delta.
<i>Water Storage Administration</i>	<i>General administration and support related to the Water Storage Program.</i>
<i>Groundwater Basin Management and Monitoring</i>	<i>Groundwater and Storm water monitoring, including toxic site monitoring. Groundwater management, including artificial recharge management.</i>
<i>Semitropic</i>	<i>Administration, operation, and maintenance of Semitropic.</i>
<i>Cawelo</i>	<i>Administration, operation, and maintenance of Cawelo.</i>

Untreated Water Rate Calculation

The untreated water rate is calculated in the following steps:

1. Project water deliveries to the untreated and treated water systems based on delivery requests and trends
2. Determine staff costs for different programs that serve one or both of the systems. All overhead costs are shared between treated and untreated water deliveries. Untreated water program administration costs are applied directly to the untreated water rate.
3. Apply water supply unit costs per unit of water purchased, factoring in certain supplies such as local Lake Del Valle water that have no or minimal cost
4. Project amount of water purchased from each source
5. Calculate total costs of water supply by multiplying unit costs with amount of water purchased and include all fixed costs (water rights, etc.)
6. Divide all costs by the water deliveries of each system dependent upon benefit and use
7. Result: \$167 per A/F for CY 2019

The projected water delivery for untreated water is approximately 5,500 AF in 2019; for treated water it is 32,784 AF. The water supply unit costs and projected water purchases are based on the 2019 Water Operations Plan. All water costs, excluding fixed State Water Project costs paid through property taxes, are used to calculate the untreated water rate per unit of water.

Attachment A shows the untreated water rate calculation used to determine the preliminary Calendar Year 2019 rate of \$167/AF of water. Note that the items in italics have been added to the untreated water rate calculation based on the cost of service study findings.

OTHER UNTREATED WATER RATES

Temporary Untreated – This rate was also reviewed as part of the Cost of Service Study. It includes most of the cost elements of the untreated water rate plus the State Water Project Supply Costs that are paid with property taxes. The need for temporary services results from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. The temporary untreated water rate is based on the estimated cost of imported water, Zone 7 staff costs related to water supply management, Bay-Delta related costs and supplemental water purchases divided by the estimated customer deliveries minus the estimated available water from the Del Valle reservoir. The proposed rate for temporary untreated water is \$860 per AF or \$2.64 per 1,000 gallons.

Non-Scheduled Untreated Water – Non-scheduled water is all untreated water deliveries exceeding scheduled deliveries by more than 10% in any year. It is based upon the temporary untreated water rate. The proposed rate for non-scheduled untreated water is \$860 per AF 2.64 per 1,000 gallons.

Surplus Untreated – Surplus untreated water deliveries are available only in years when the supplies exceed our customers' demands. Historically, tentative surplus water delivery requests are submitted to Zone 7 by March 15 of each year; availability of surplus water is determined in April; and actual deliveries are announced in May. The rate fluctuates depending on the source of the surplus. The surplus untreated water rate is based on the estimated unit costs of Byron Bethany Irrigation District water, the Department of Water Resources water and Bay-Delta related costs.

Staff reviewed this rate as part of the untreated water cost of service study and recommends eliminating it. While the rate has been set every year, it has not been utilized in more than ten years. Water supply conditions have changed over the years reducing the amount of surplus water available. Furthermore, Zone 7 proactively stores any excess water in local and off-site banking programs to bolster reliability in dry-years or emergency situations.

Should the need arise to offer a surplus untreated water rate because surplus water is available and has been requested, staff will determine the rate based on the current water supply and operations plan and bring forth any proposed rate to the Board for discussion and adoption.

ATTACHMENTS:

1. Resolution
2. Attachment A - Zone 7 Proposed Untreated Water Rate Calculation
3. Attachment B - Zone 7 Proposed Temporary Untreated Water Rate Calculation

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO

INTRODUCED BY
SECONDED BY

Adoption of the Untreated Water Rates for 2019

BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District that the following rate schedule for Untreated Water, Temporary Untreated Water, and Non-Scheduled Untreated Water Services, be adopted:

FIRST, for Untreated Water Service, a DELIVERY CHARGE of \$167 per acre-foot for all metered water delivered to each customer per month.

SECOND, for Temporary Untreated Water Service, an initial service establishment charge of \$125 per turnout for each new direct connection to the Zone system or a system supplying the Zone system; and

A monthly service charge of \$21 per turnout; and

A charge of \$860 per AF or \$2.64 per 1000 gallons for temporary untreated water service for all water delivered monthly based on total meter readings or as may be otherwise determined by Zone 7.

THIRD, for Non-Scheduled Untreated Service, a delivery charge of \$860 per acre-foot for all non-scheduled untreated water delivered to each customer.

FOURTH, eliminate the Surplus Untreated Water Service rate.

BE IT FURTHER RESOLVED that said rate schedule for Untreated Water Services, collectively, shall be effective on January 1, 2019, and shall end on the next effective date for such water rates as adopted by the Board.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on October 17, 2018.

By _____
President, Board of Directors

Attachment A - Zone 7 Proposed Untreated Water Rate Calculation

				2019 Proposed Rate	
Calendar Year	2018 Rate	2019 Proposed Rate	Acre-Feet	Unit Cost per Acre-Foot ¹	
Planned Treated and Untreated Water Deliveries (Acre-Feet)			37,167	38,290	
Water Supply	Water Transfers				
	Byron Bethany Irrigation District	\$90,000	\$90,000	38,290	\$2
	Other Water Transfers	\$1,138,000	\$1,000,000	38,290	\$26
	Groundwater Banking Programs				
	Cawelo Recovery	-	-		
	Semitropic Recovery	\$1,000,000	-		
	Cawelo Storage	-	\$370,000	38,290	\$10
	Semitropic Storage	-	\$200,000	38,290	\$5
	Semitropic O&M	-	\$480,000	38,290	\$13
	Local Water Supplies				
	Del Valle Water Rights	\$3,000	\$3,000	38,290	\$0
	State Water Project				
	Yuba Costs/Dry Year Program	\$10,000	\$80,000	38,290	\$2
	Multi-Year Pool Program	-	-	38,284	\$0
	Bay-Delta Related Costs/Water Supply Reliability Projects	\$210,000	\$500,000	38,290	\$13
State Water Project Transportation Variable Cost ²	\$2,079,122	\$2,170,000	38,290	\$57	
Total Water Supply Costs	\$4,530,122	\$4,893,000		\$128	
Zone 7 Staff Costs	Zone 7 Staff Costs by Program				
	Byron Bethany Irrigation District	\$8,101	\$4,500	38,290	\$0
	Cawelo	-	\$1,600	38,290	\$0
	Groundwater Monitoring and Management	-	\$944,000	38,290	\$25
	Local Water Rights	-	\$23,000	38,290	\$1
	Other Water Supplies	\$33,140	\$26,000	38,290	\$1
	Semitropic	-	\$3,100	38,290	\$0
	State Water Project	\$158,335	\$127,000	38,290	\$3
	Supply Source & Conveyance Administration	-	\$20,800	38,290	\$1
	Untreated Water Program	\$10,121	\$8,000	5,500	\$1
	Water Storage Administration	-	\$7,200	38,290	\$0
	Water Utility Planning	-	\$290,000	38,290	\$8
	Total Zone 7 Staff Costs	\$209,697	\$1,455,200		\$39
Total Water Supply and Zone 7 Staff Costs			\$4,739,819	\$6,348,200	
Untreated Water Rate (rounded) per Acre-Foot			\$129	\$167	\$167

¹ Unit cost per acre-foot that are shown as \$0 equate to less than one dollar when allocated amongst 38,290 acre-feet.

² Factors in zero variable costs for Lake Del Valle runoff. Does not include State Water Project Fixed charges that are paid through property taxes of approximately \$25M annually.

Attachment B - Zone 7 Proposed Temporary Untreated Water Rate Calculation

Zone Water Agency Proposed Temporary Untreated Water Rate Calculation for 2019	
1. Planned Treated & Untreated Water Deliveries (Acre-feet)	38,290
<i>Estimated Expenses</i>	<i>Amount</i>
2. a) State Water Supply	\$26,500,000
b) Off-Aqueduct Power Facilities	\$41,000
c) Variable Transportation Water Charges	\$2,170,000
d) Cawelo Recovery	-
e) Semitropic Recovery	-
<i>f) Cawelo Storage</i>	\$370,000
<i>g) Semitropic Storage</i>	\$200,000
<i>h) Semitropic O&M</i>	\$480,000
i) Byron Bethany Irrigation District	\$90,000
j) Yuba Dry Year Purchase Program	\$80,000
k) Bay-Delta Related Costs/Additional Supply Reliability Projects	\$500,000
l) Other Water Transfers	\$1,000,000
3. Total Water Supply Costs	\$31,431,000
4. Unit Cost per AF(3 ÷ 1)	\$821
5. <i>Zone 7 Staff costs per AF (derived from Untreated Water Calculation)</i>	\$39
6. Total Unit Cost (4+5) in \$ per AF	\$860
Or in \$ per 1,000 gallons	\$2.64

Note: Items in italics have been added based on the Untreated Water Cost of Service Study recommendation.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: ADMINISTRATIVE SERVICES

CONTACT PERSON: Osborn Solitei

AGENDA DATE: June 21, 2017

ITEM NO: 13

SUBJECT: Proposed Mid-Cycle Budget Amendment for FY 2017-18

SUMMARY:

- Zone 7 adopted its first two-year budget for fiscal years FY 2016-18 in June of 2016.
- Staff has conducted a mid-cycle review and are proposing amendments to the FY 2017-18 Budget to include necessary adjustments to projected revenues, expenditures, capital projects and reserve levels.
- For instance, staff are proposing to amend Fund 100 – Water Enterprise to reflect revised estimates for revenues decreasing \$2.4M and expenditures decreasing \$0.6M from the FY 2017-18 Budget. This budget amendment assumes that the current temporary surcharge of \$0.57 per 100 cubic feet (ccf) will sunset on December 31, 2017; any extension of the temporary surcharge will require a separate Board approval. Currently there are no plans to recover water from Semitropic and Cawelo in 2017 because supplies are abundant; instead, Zone 7 is sending additional water to these out-of-basin groundwater storage banks. In addition, Zone 7 plans to maximize local groundwater recharge in 2017. In the proposed budget amendment, personnel costs have decreased \$1.1M due to retirements and implementation of the Koff & Associates classification, staffing studies and succession plan.
- On January 18, 2017, the Zone 7 Board approved an additional appropriation (Resolution No.17-01) of \$9.6M, \$2.5M less than the \$12M in the lease agreement for the purchase of the North Canyons administrative building. On April 28, 2017, Zone 7 closed escrow on the building purchase for \$9M. Lease payments ended as of April 2017 for a total, three-year cost savings of \$3.8M. The total cost savings for this building is \$7.1M (which includes the \$3.8M savings, avoided costs of \$500K for moving expenses and \$2.8M in avoided contributions to the building sinking fund). The O & M costs for the building are now in Funds 100 and 200. The proposed budget amendment incorporates changes related to this early building acquisition.

RECOMMENDED ACTION:

Discuss and adopt the proposed budget amendments for FY 2017-18 by approving the attached resolution.

ATTACHMENTS:

Memorandum

Resolution

Exhibit A - Annual Budget by Account Classification (FY 2017-18 Amended Budget)

Exhibit B - Capital Improvement Program (CIP) Project/Program Listing



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

MEMORANDUM

DATE: June 21, 2017
TO: Board of Directors
FROM: Osborn Solitei, Treasurer/Assistant General Manager, Finance
SUBJECT: **Proposed Mid-Cycle Budget Amendment for FY 2017-18**

BACKGROUND:

Zone 7 adopted its first two-year budget for fiscal years FY 2016-17 and 2017-18 in June of 2016. A two-year budget process involves a mid-cycle review of the second budget year to confirm the budget is in-line with Board priorities, economic conditions, capital project schedules, projected revenues/expenses from the first budget year and reserve policy requirements.

Proposed budget amendments by fund are shown in the tables below:

Fund 100 – Water Enterprise Operations

Revenue Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Water Sales	\$43,555,115	\$51,416,458	\$49,034,188	-5%	-\$2,382,270
Charges for Services	104,000	131,500	131,500	0%	0
Aid from Gov. Agencies	112,819	0	0	0%	0
Investment Earnings	28,000	26,852	43,954	64%	17,102
Other Revenue	344,136	137,797	137,797	0%	0
Total	\$44,144,070	\$51,712,607	\$49,347,439	-5%	-\$2,365,168

Fund 100 Revenues

- On June 15, 2016, the Zone 7 Board lifted the local drought emergency and set a voluntary 10% conservation target to support ongoing statewide water conservation efforts. Current year water sales have increased above FY 2015-16 amounts, but are still well below 2013 peak sales. FY 2016-17 conservation is hovering around 27% relative to FY 2012-13 levels.

- FY 2017-18 water sales revenue has been updated based on the 2016 Wholesale Rate Study findings, which was completed after the FY 16-18 Two-Year Budget was adopted. The 2017-18 budget assumed temporary surcharges of \$0.52 per ccf in 2017 and \$0.35 per ccf in 2018. However, this proposed budget amendment assumes that the current surcharge of \$0.57 per ccf will sunset on December 31, 2017 and will not be extended.
- This proposed budget amendment still assumes a conservation rate of 20% from the sale of 32,026 acre-feet (AF) for FY 2017-18. FY 2016-17 water sales revenue assumed sales of 31,164 AF. Based on conservation levels thus far in FY 2016-17, staff has revised the projection to 28,902 AF; which impacts available funding for FY 2017-18 and therefore affects the proposed budget amendment.

Expense Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Personnel	\$15,013,704	\$16,253,197	\$15,153,197	-7%	-\$1,100,000
Supplies	7,638,144	9,936,398	10,637,955	7%	701,557
Professional Services	1,613,608	2,303,484	2,277,769	-1%	-25,715
County Services	1,337,323	1,376,320	1,467,256	7%	90,936
Maintenance	1,373,773	1,973,585	1,973,585	0%	0
Other	1,591,351	1,706,464	1,677,917	-2%	-28,547
Debt Service	0	1,398,606	1,203,452	-14%	-195,154
Transfers	12,853,416	13,590,656	13,590,656	0%	0
Total	\$41,421,320	\$48,538,710	\$47,981,787	-1%	-\$556,923

Fund 100 Expenses

- In the proposed budget amendment, personnel costs have decreased \$1.1M due to retirements and implementation of the Koff & Associates classification, staffing studies and succession plan.
- Currently there are no plans to recover water from Semitropic and Cawelo in 2017 because supplies are abundant; instead, Zone 7 is sending additional water to these out-of-basin groundwater storage banks. In addition, Zone 7 plans to maximize local groundwater recharge in 2017.
- In the proposed budget amendment, County Services have increased by 7%, primarily due to updated County indirect costs from \$0.5M to \$0.6M.
- There is no net increase to the overall FY 2017-18 budget for the North Canyons building operations and maintenance (O&M) costs (i.e., utilities, landscaping, janitorial, and HVAC services).

Fund 100 Reserves

- On September 28, 2016, the Board adopted Resolution #16-166, approving a reserve policy which increased reserve requirements for this fund. The revisions to the policy will help maintain fiscal health and position Zone 7 to obtain a favorable credit rating. These changes are summarized in the table below:

Reserve		Interim Policy	Adopted Policy
Operating	Minimum	32 days of operating expenses	60 days of operating expenses
	Target	60 days of operating expenses	90 days of operating expenses
	Maximum	90 days of operating expenses	120 days of operating expenses
Emergency	Minimum	1% of Water Enterprise assets	2% of Water Enterprise Assets
	Target	2% of Water Enterprise assets	2.5% of Water Enterprise Assets
	Maximum	3% of Water Enterprise assets	No change
Drought Contingency	Minimum	7% of budgeted water sales	5% of budgeted water sales
	Target	no target	10% of budgeted water sales
	Maximum	20% of budgeted water sales	20% of budgeted water sales
Rate Stabilization	Minimum	6% of budgeted water sales	10% of budgeted water sales
	Target	\$6.8M	15% of budgeted water sales
	Maximum	no maximum	20% of budgeted water sales

- In the proposed budget amendment, there is a shift from the rate stabilization reserve to operating reserves to fund the operating reserve at the Board-approved minimum amount. Total reserves at the end of FY 2017-18 are projected to be \$9.5M, which is less than the previously-adopted FY 2017-18 Budget amount of \$10M. Neither the FY 2017-18 adopted nor the proposed amended budgets meet the Board-approved minimum reserve level of \$17.4M.

Fund 100 Reserves	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	FY 2017-18 Minimum Reserve Level
Operating Reserves	\$5,426,733	\$2,941,321	\$5,653,337	\$5,653,337
Emergency Reserves	2,703,152	2,518,258	3,842,200	4,378,794
Drought Contingency	0	0	0	2,451,709
Rate Stabilization Reserves	0	4,509,359	0	4,903,419
Total Reserves	\$8,129,885	\$9,968,938	\$9,495,537	\$17,387,259

Fund 110 - State Water Facilities

Revenue Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Property Taxes	\$17,895,912	\$18,650,000	\$20,150,000	8%	\$1,500,000
Dougherty Valley Surcharge	2,270,670	1,626,913	2,227,320	37%	600,407
DWR Refunds	2,649,423	1,522,774	3,307,288	117%	1,784,514
Aid from Gov. Agencies	51,299	45,610	45,610	0%	0
Investment Earnings	49,206	30,000	75,888	153%	45,888
Total	\$22,916,510	\$21,875,297	\$25,806,106	18%	\$3,930,809

Fund 110 Revenues

- In the proposed budget amendment, the Property Tax Override would increase by 8% based on revenue requirements. DWR refunds are increasing by \$1.8M, because the South Bay Aqueduct Power charges paid in the prior year are refunded as a credit and applied as revenue the following year.

Expense Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Supplies	\$20,985,607	\$20,433,428	\$25,109,685	23%	\$4,676,257
Total	\$20,985,607	\$20,433,428	\$25,109,685	23%	\$4,676,257

Fund 110 Expenses

- This is a pass-through fund for fixed charges associated with the State Water Project (SWP). In the proposed budget amendment, SWP charges are increasing by 23% based on increased charges related to the South Bay Aqueduct (SBA) Enlargement and Improvement Project. Board Resolution #17-19, authorized the General Manager to negotiate and execute Contract Amendment No. 26 to Zone 7's water supply contract with DWR to incorporate Zone 7's increased SBA capacity. Zone 7's operational costs such as Minimum Operation, Maintenance, Power and Replacement (minimum OMPR) transportation charges were supposed to increase by approximately \$1 to 1.5 million/year, starting in 2015 when the SBA Enlargement project came online due to the increased conveyance capacity. DWR did not include these costs in Zone 7's Statement of Charges for 2015, 2016 and 2017 because DWR required an amendment to Zone 7's water supply contract to reflect Zone 7's increased flow capacity. DWR is planning to retroactively recalculate the charges and include them in Zone 7's 2018 Statement of Charges.

Fund 120 - Water Enterprise Renewal/Replacement & System-wide Improvements

Revenue Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Grant Revenue	\$2,817,551	\$0	\$0	0%	\$0
Facility Use Fees	1,000,000	600,000	600,000	0%	0
Charges for Services	1,000	2,500	2,500	0%	0
Investment Earnings	163,931	153,369	153,093	0%	-276
Other Revenue	6,536	0	0	0%	0
Debt Proceeds	0	39,342,788	34,000,000	-14%	-5,342,788
Transfers	12,661,760	13,399,000	13,399,000	0%	0
Total	\$16,650,778	\$53,497,657	\$48,154,593	-10%	-\$5,343,064

Fund 120 Revenues

- In the proposed budget amendment, debt proceeds would decrease \$5.3M because borrowing for the ozone projects will be phased over two years. The previously-adopted budget assumes receipt of \$39M in debt proceeds for both ozone projects in FY 2017-18. On April 19, 2017, the Zone 7 Board approved borrowing of \$30M from the Drinking Water State Revolving Fund for the DVWTP Ozone Project. Assuming separate Board approvals are obtained, this amount is proposed to increase to \$34M because the Engineer’s estimate for the project was recently increased by 14%. Due to the phasing of the ozone projects (DVWTP bid in Winter 2017 and PPWTP in Summer 2018), this budget amendment assumes debt proceeds of \$34M for the DVWTP Ozone Project only. The FY 2018-19 budget will include a separate debt issuance for the PPWTP Project.

Expense Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Personnel	\$1,279,994	\$2,102,573	\$2,102,573	0%	\$0
North Canyons Building Lease	434,202	591,488	0	-100%	-591,488
Capital Projects	8,821,702	20,685,428	15,673,927	-24%	-5,011,501
Total	\$10,535,898	\$23,379,489	\$17,776,500	-24%	-\$5,602,989

Fund 120 Expenses

- On January 18, 2017, the Zone 7 Board approved an additional appropriation (Resolution No. 17-01) of \$9.6M (\$4.3M from this fund) for the purchase of the North Canyons administrative building. On April 28, 2017, Zone 7 closed escrow on the building purchase withdrawing \$4.1M from the sinking fund for this fund’s share of the purchase. Lease payments ended as of April 2017 and O&M costs in the proposed budget amendment are now in Funds 100 and 200.

- In the proposed budget amendment, capital project costs have decreased by 24% due to the multi-year nature of capital projects and phasing of expenditures for large capital projects based on cash flow projections. For example, design contracts for the DVWTP Ozone and PPTWP Upgrades and Ozone Projects were encumbered in FY 2016-17.

Fund 130 - Water Enterprise System Expansion

Revenue Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Water Connection Fees	\$35,000,000	\$24,950,474	\$46,753,572	87%	\$21,803,098
Investment Earnings	362,572	127,882	459,935	260%	332,053
Other Revenue	3,073,231	3,020,000	3,020,000	0%	0
Transfers	1,025,000	0	0	0%	0
Total	\$39,460,803	\$28,098,356	\$50,233,507	79%	\$22,135,151

Fund 130 Revenues

- In the proposed budget amendment, estimated connection fee revenue has been updated to reflect the findings from the 2016-17 connection fee study. The study projects 1,693 connections to materialize in FY 2017-18, instead of the 930 previously projected.

Expense Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Personnel	\$491,759	\$412,616	\$412,616	0%	\$0
Supplies	19,643,027	19,684,000	19,684,000	0%	0
North Canyons Building Lease	337,713	460,048	0	-100%	-460,048
Capital Projects	8,540,094	16,224,385	2,006,318	-88%	-14,218,067
Total	\$29,012,592	\$36,781,049	\$22,102,934	-40%	-\$4,678,115

Fund 130 Expenses

- On January 18, 2017, the Zone 7 Board approved an additional appropriation (Resolution No.17-01) of \$9.6M (\$3.36M in this fund) for the purchase of the North Canyons administrative building. On April 28, 2017, Zone 7 closed escrow on the building purchase withdrawing a total of \$3.2M from the sinking fund/capital project reserves for this fund's share of the purchase. Lease payments ended as of April 2017 and O&M costs are now in Funds 100 and 200.
- In the proposed budget amendment, capital project costs have decreased by 88% due to the multi-year nature of capital projects and phasing of expenditures for large capital projects based on cash flow projections. For example, design contracts for the PPTWP Upgrades and Ozone Projects were encumbered in FY 2016-17 and staff recommends deferral of the El Charro Phase 2 Pipeline based on the Transmission System Planning Update findings and

deferring construction of new wells until the review of the Well Implementation Plan is complete.

Fund 200 – Flood Protection Operations

Revenue Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Property Taxes	\$7,763,450	\$8,109,834	\$8,075,563	-0.4%	-\$34,271
Charges for Services	27,050	47,650	47,650	0.0%	0
Aid from Gov. Agencies	74,700	64,700	64,700	0.0%	0
Investment Earnings	116,692	48,662	65,247	34.1%	16,585
Other Revenue	138,273	110,910	110,910	0.0%	0
Total	\$8,120,165	\$8,381,756	\$8,364,070	-0.2%	-\$17,686

Fund 200 Revenues

- In the proposed budget amendment, property tax revenue has decreased by less than 1% based on updated County estimates.

Expense Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Personnel	\$1,772,298	\$2,154,199	\$2,154,199	0%	\$0
Professional Services	3,351,653	959,828	959,828	0%	0
Maintenance	3,874,922	2,654,872	10,454,872	294%	7,800,000
North Canyons Building Lease	112,819	131,442	0	-100%	-131,442
Capital Projects	1,484,303	5,407,725	5,172,072	-4%	-235,653
Transfers	13,333	\$13,333	\$13,333	0%	0
Total	\$10,609,328	\$11,321,399	\$18,754,304	66%	\$7,432,905

Fund 200 Expenses

- On January 18, 2017, the Zone 7 Board approved an additional appropriation of \$9.6M (\$0.9M in this fund) for the purchase of the North Canyons administrative building. On April 28, 2017, Zone 7 closed escrow on the building purchase withdrawing a total of \$0.9M from the sinking fund for this fund’s share of the purchase. Lease payments ended as of April 2017 and O&M costs are now in Fund 100 and this fund.
- Maintenance includes the Flood Protection Emergency Repair Program which is proposed to increase from \$0.2M to \$8M. This amount covers FY 2017-18 project management and design for the 200+ damaged sites. Budget appropriations for construction costs will be made once contracts are awarded and more is known about FEMA reimbursement.

- The Stream Management Master Plan (SMMP) update will prioritize projects for a Flood Protection ten-year CIP.

Fund 210 - Flood Protection DIF Fund

Revenue Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Development Fees	\$2,120,000	\$5,142,325	\$5,142,325	0%	\$0
Investment Earnings	312,292	183,123	286,501	56%	\$103,378
Other Revenue	0	25,000	25,000	0%	\$0
Total	\$2,432,292	\$5,350,448	\$5,453,826	2%	\$103,378

Fund 210 Revenues

- In the proposed budget amendment, investment earnings are updated.

Expense Category	FY 2016-17 End-of-Year Projection	FY 2017-18 Adopted Budget	FY 2017-18 Amended Budget	Change	
				FY 2017-18 Budget Amendment (%)	FY 2017-18 Budget Amendment (\$)
Personnel	\$197,167	\$456,087	\$456,087	0%	\$0
North Canyons Building Lease	112,819	131,442	0	-100%	-131,442
Capital Projects	3,202,941	6,133,161	6,112,261	0%	-20,900
Total	\$3,512,928	\$6,720,690	\$6,568,348	-2%	-\$152,342

Fund 210 Expenses

- On January 18, 2017, the Zone 7 Board approved an additional appropriation of \$9.6M (\$0.9M in this fund) for the purchase of the North Canyons administrative building. On April 28, 2017, Zone 7 closed escrow on the building purchase withdrawing a total of \$0.9M from the sinking fund for this fund's share of the purchase. Lease payments ended as of April 2017 and O&M costs are now in Funds 100 and 200. The proposed budget amendment reflects this.
- In the proposed budget amendment, \$1M has been added for the Flood Protection Emergency Repair program.
- The SMMP update will prioritize projects for a Flood Protection ten-year CIP.

Reserve Policy

- Projected balances at June 30, 2018 are in compliance with the Board-adopted reserve policy minimums except for Fund 100. It has been previously communicated to the Board that this fund is projected to be compliance in 2-3 years.

County Budget

- The agency will continue to submit annual budgets to Alameda County for the three operating funds (Funds 100, 110 & 200). Upon adoption by the Zone 7 Board, Zone 7's operating fund budgets are then included with the other County department's budgets and presented to the Board of Supervisors for adoption in June each year.

**Exhibit A - FY 2017-18
Annual Budget by Account Classification**

Estimated Change in Reserve Balances

The fund schedule below summarizes Zone7's overall financial picture by individual fund. It includes revenue and expenses as well as projected reserve balances at 6/30/2018. The fund schedules are grouped by type of fund: Enterprise (Water Enterprise Fund, State Water Facilities Fund, Renewal & Replacement/System Wide Improvement Fund and the Expansion Fund) and Governmental Funds (Flood Protection and Flood Protection/Stormwater Drainage Development Impact Fee Fund).

Summary of Annual Budget by Account Classification - FY 2017-18 Amended Budget

FY 2017-18 AMENDED BUDGET	Fund 100 Water Enterprise	Fund 110 State Water Facilities	Fund 120 Water Enterprise Capital Renewal/Replacement/Improvements	Fund 130 Water Enterprise Capital Expansion	Fund 200 Flood Protection/General Fund	Fund 210 Flood Protection Development Impact Fees	Total
1 Available Fund Balance July 1, 2016	\$ 5,407,135	\$ 12,936,524	\$ 29,243,930	\$ 69,445,048	\$ 20,666,298	\$ 56,059,068	\$ 193,758,001
2 FY 2016-17 Projected Change in Fund Balance (Revenue over Expenses)	2,722,750	1,930,903	3,262,169	8,706,730	(2,489,163)	1,941,689	16,075,078
3 Estimated Beginning Fund Balance July 1, 2017	8,129,885	14,867,427	32,506,098	78,151,778	18,177,134	58,000,757	209,833,079
4 Revenue							
5 Water Sales & Service	49,034,188	2,227,320					51,261,508
6 Property Taxes		20,150,000			8,075,563		28,225,563
7 Development Fees			600,000	46,753,572		5,142,325	52,495,897
8 Charges for Services	131,500		2,500		47,650		181,650
9 Aid from Governmental Agencies		45,610			64,700		110,310
10 Investment Earnings	43,954	75,888	153,093	459,935	65,247	286,501	1,084,618
11 Debt Service			34,000,000				34,000,000
12 Other Revenue	137,797	3,307,288		3,020,000	110,910	25,000	6,600,995
13 Subtotal (before transfers)	49,347,439	25,806,106	34,755,593	50,233,507	8,364,070	5,453,826	173,960,541
14 Transfers			13,399,000				13,399,000
15 Total Revenue	49,347,439	25,806,106	48,154,593	50,233,507	8,364,070	5,453,826	187,359,541
16 Expenses							
17 Personnel	15,153,197		2,102,573	412,616	2,154,199	456,087	20,278,672
18 Professional Services	2,277,769				959,828	7,500	3,245,097
19 County Services	1,467,256						1,467,256
20 Water Variable Costs	5,941,300						5,941,300
21 Water Fixed Costs		25,109,685		19,684,000			44,793,685
22 Chemicals	2,870,605						2,870,605
23 Utilities	1,775,726						1,775,726
24 Communications	157,127				2,268		159,395
25 Repairs and Maintenance	1,973,585				10,461,449		12,435,034
26 Rental Services	134,985				20,083		155,068
27 Other General Office Services/ Supplies	566,582				344,239		910,821
28 Organizational Membership/ Participation	420,000				120,725	7,500	548,225
29 Training and Travel	140,756				7,659		148,415
30 Water Conservation	258,467						258,467
31 Capital Projects			15,673,927	2,006,318	4,670,521	6,097,261	28,448,027
32 Equipment, Furniture and Vehicles	50,324						50,324
33 Debt Service	1,203,452						1,203,452
34 Subtotal (before transfers)	34,391,131	25,109,685	17,776,500	22,102,934	18,740,971	6,568,348	124,689,569
35 Transfers	13,590,656				13,333		13,603,989
36 Total Expenses	47,981,787	25,109,685	17,776,500	22,102,934	18,754,304	6,568,348	138,293,558
37 Estimated Ending Fund Balance June 30, 2018	9,495,537	15,563,848	62,884,191	106,282,351	7,786,900	56,886,235	258,899,062
38 Reserve Balances							
39 Operating	5,653,337	15,563,848			7,035,225		28,252,410
40 Rate Stabilization							-
41 Emergency	3,842,200						3,842,200
42 Drought Contingency							
43 Capital Projects			62,884,191	91,489,537	751,675	56,886,235	212,011,638
44 Sinking Funds - FY 2017-18 Contributions Future Contractor's Share of the South Bay Aqueduct				592,873			592,873
46 South Bay Aqueduct Enlargement				1,207,744			1,207,744
47 Sinking Funds Reserve Balance				14,792,814			14,792,814
48 Total Reserves	\$ 9,495,537	\$ 15,563,848	\$ 62,884,191	\$ 106,282,351	\$ 7,786,900	\$ 56,886,235	\$ 258,899,062
49 Change in Fund Balance (use of reserves) - line 48 minus line 3	1,365,652	696,421	30,378,093	28,130,573	(10,390,234)	(1,114,522)	49,065,983

Exhibit B - Capital Improvement Program (CIP)

Water Enterprise

Capital Project/Program Listing

Fund 120 – Renewal/Replacement & System-wide Improvements

FY 2017-18 Budget - Fund 120 Capital Project/Program List	
Project/Program	FY 2017-18 Amended Budget
Ozonation at DVWTP	\$11,352,000
DVWTP Interior Coating Improvements to the 4.5 MG Steel Clearwell	2,700,000
Contingency	750,000
DVWTP Polymer Mixing System	500,000
Minor Renewal/Replacement Projects	400,000
Mocho Well No.2 Repair Project	400,000
Ozonation at PPWTP	352,500
Booster Pump Station	300,000
SCADA Enhancements	260,000
PPWTP Upgrades	243,000
Monitoring Well Replacements & Abandonments	150,000
Laboratory Equipment Replacement	120,000
Asset Management Program Management	100,000
System-Wide Installation of Line Valves	60,000
Cope/Lake I/Lake H Management Plan	30,000
Capital Improvement Program Management	29,000
Water Quality Management Program	24,000
Chain of Lakes Master Planning	6,000
Total	\$17,776,500

Exhibit B - Capital Improvement Program (CIP)

Water Enterprise

Capital Project/Program Listing

Fund 130 - Expansion

FY 2017-18 Budget - Fund 130 Capital Project/Program List	
Project/Program	FY 2017-18 Amended Budget
South Bay Aqueduct Enlargement Project	\$15,324,000
Fourth Contractor's Share of the SBA	3,000,000
Cawelo Groundwater Banking	1,299,256
PPWTP Upgrades	\$567,000
Water Supply and Bay Area Regional Projects	520,000
Contingency	500,000
Ozonation at PPWTP	352,500
Review of Well Implementation Plan	200,000
Capital Improvement Program Management	\$86,000
Cope/Lake I/Lake H Management Plan	\$70,000
Belridge/Lost Hills Peaking Payment	50,000
Semitropic Stored Water Recovery Unit	49,178
Arroyo Mocho Diversion Facility Coordination & Implementation	25,000
Water Conservation Best Management Practices	20,000
Chain of Lakes Master Planning	14,000
High-Efficiency Washing Machine Rebate Program	10,000
Water Quality Management Program	6,000
Bay-Delta Conservation Planning (Zone 7)	5,000
Delta Outreach Program	5,000
Total	\$22,102,934

Exhibit B - Capital Improvement Program (CIP)

Flood Control

Capital Project/Program Listing

Fund 200 – General Fund/Flood Control

FY 2017-18 Budget – Fund 200 Capital Project List	
Project/Program	FY 2017-18 Amended Budget
Chain of Lakes Management Area	\$3,337,000
South San Ramon Creek Iron Horse Trail Floodplain and Riparian Restoration	349,000
Stream Maintenance Permit Program	300,000
Arroyo Mocho Granada-Murrieta Reach	260,000
Arroyo Mocho Medeiros Reach	258,000
Living Arroyos Program	200,000
Flood Control Asset Management Program	175,000
Hydrology and Hydraulic Mode	88,500
Sediment Transport Study	70,800
SMMP Financing Strategy and Implementation	21,500
Total	5,059,800

Exhibit B - Capital Improvement Program (CIP)

Flood Control

Capital Project/Program Listing

Fund 210 – Flood Protection DIF Fund

FY 2017-18 Budget – Fund 210 Capital Project/Program List	
Project/Program	FY 2017-18 Amended Budget
Chain of Lakes Management Area	\$4,226,370
Flood Protection Emergency Repair Program	1,000,000
Arroyo Mocho Granada-Murrieta Reach	345,000
Arroyo Mocho Medeiros Reach	342,000
Contingency	250,000
Development Impact Fee Study	175,000
South San Ramon Creek Iron Horse Trail Floodplain and Riparian Restoration	71,000
Hydrologic and Hydraulic Model Improvements	61,500
Sediment Transport Study	49,200
SMMP Financing Strategy and Implementation	28,500
Steelhead and Related Studies	7,500
Eastern Alameda County Conservation Strategy	7,500
Capital Improvement Program Management	4,778
Total	\$6,568,348

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO 17-51
INTRODUCED BY DIRECTOR STEVENS
SECONDED BY DIRECTOR FIGUERS

MID-CYCLE BUDGET AMENDMENT FOR FY 2017-18

BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby approve the following budget amendment including revenues, expenses and the use of fund balances (reserves) for Fiscal 2017-18 (Exhibit A):

1. Water Enterprise Budget (Fund 100);
2. State Water Facilities Budget (Fund 110);
3. Water Renewal & Replacement, System-Wide Improvements Capital Projects (Fund 120);
4. Water Expansion Capital Projects (Fund 130);
5. General Fund/Flood Protection Budget (Fund 200);
6. Flood Protection/Stormwater Drainage DIF Capital Projects (Fund 210); and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 does hereby request the Board of Supervisors of the Alameda County Flood Control and Water Conservation District to incorporate said budgets of Zone 7, where applicable; and

BE IT FURTHER RESOLVED that Section 1 (b) of Article XIII A of the California Constitution exempts ad valorem property tax levies to make payments upon indebtedness approved by voters prior to July 1, 1978, from the limitations set forth in Section 1 (a) of Article XIII A; and

BE IT FURTHER RESOLVED that the District's indebtedness from its State Water Supply Contract falls within such exemption; and

BE IT FURTHER RESOLVED, that consistent with the requirements of law and specifically within the limitations imposed by Article XIII A of the Constitution of the State of California there shall be levied a property tax within the District sufficient to raise the sum of \$20,000,000 for Fiscal Year 2017-18 to meet that portion of the District's State Water Supply Contract obligation. All funds received by the District pursuant to the aforementioned property tax levy shall be placed in Fund 110, a separate fund identified for the indebtedness set forth above; and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 does hereby request the Board of Supervisors of said District to levy a tax on all property of Zone 7 sufficient to assure payment of sums due under the District's State Water Supply Contract for the State Water Facilities Fund to make payments; and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby approve the personnel actions, if any, as contained in the amended Zone 7 Budget for Fiscal Years 2017-18 and authorize the General Manager to implement such personnel actions; and

BE IT FURTHER RESOLVED that the General Manager is authorized and directed to adjust accounts as the General Manager may deem necessary to account for any changes in available fund balances, revenues or expenditures.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, GRECI, PALMER, QUIGLEY, RAMIREZ HOLMES, STEVENS

NOES: NONE

ABSENT: DIRECTOR McGRAIL

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on

June 21, 2017

By


President, Board of Directors



ZONE 7 WATER AGENCY

ADOPTED TWO-YEAR BUDGET
FISCAL YEARS 2018-20

100 NORTH CANYONS PARKWAY
LIVERMORE, CA 94551
(925) 454-5000
WWW.ZONE7WATER.COM



Zone 7 Water Agency

Two-Year Budget for Fiscal Years 2018-20

Fiscal Year 2019

(July 1, 2018 – June 30, 2019)

and

Fiscal Year 2020

(July 1, 2019 – June 30, 2020)

BOARD OF DIRECTORS

John Greci, *President*

Jim McGrail, *Vice President*
(Deceased April 2018)

Angela Ramirez Holmes

Bill Stevens

Dick Quigley

Sandy Figuers

Sarah Palmer

EXECUTIVE MANAGEMENT

Valerie Pryor, *General Manager*

Osborn Solitei, *Treasurer/Assistant General Manager, Finance*

ZONE 7 WATER AGENCY
Two-Year Budget for Fiscal Years 2018-20

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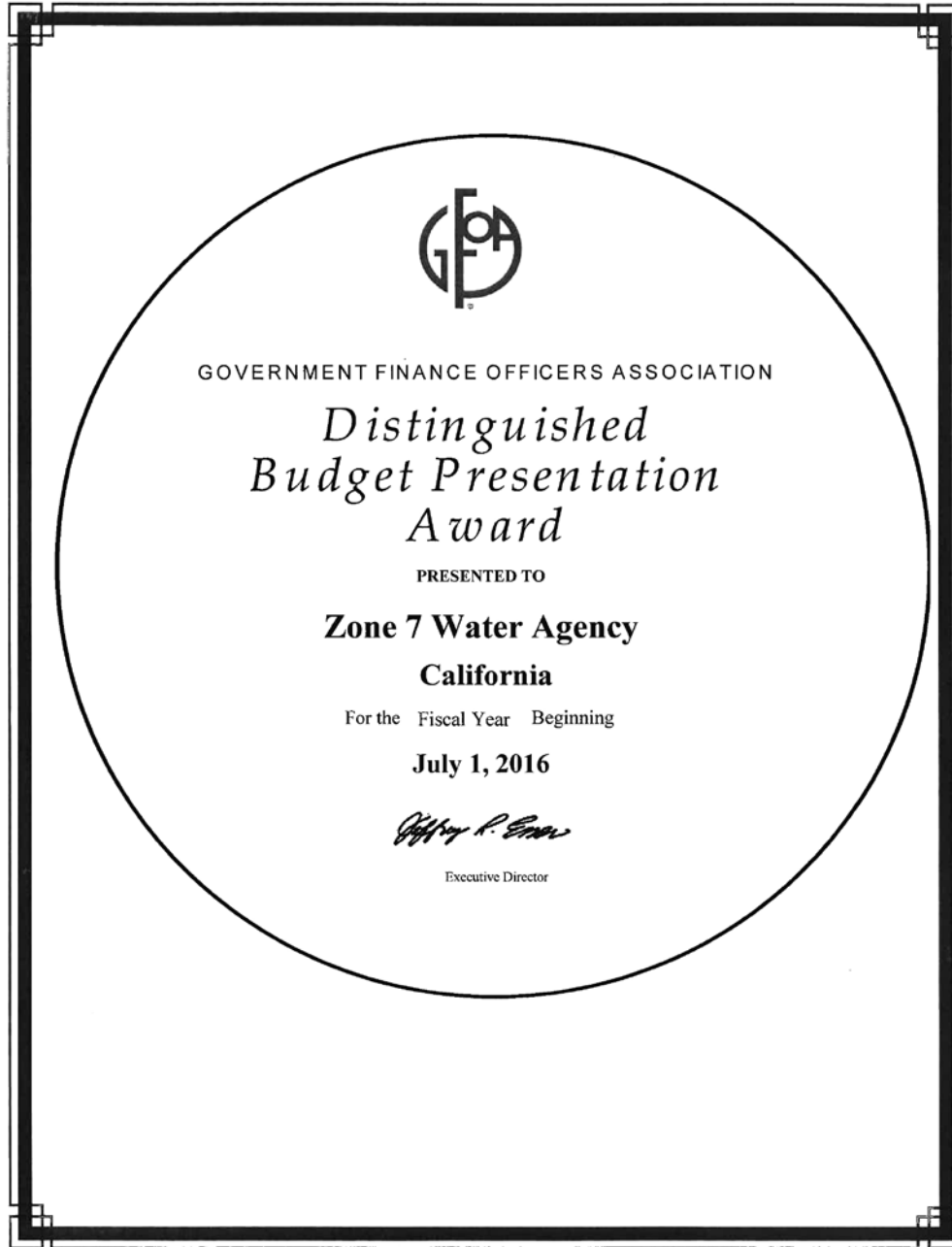
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The Government Finance Officers Association of the United States and Canada (GFOA) has presented the Distinguished Budget Presentation Award to Zone 7 Water Agency for its Operating Budget for fiscal years ending June 30, 2016.

The GFOA established the Distinguished Budget Presentation Awards Program (Budget Awards Program) in 1984 to encourage and assist state and local governments to prepare budget documents of the very highest quality that reflect both the guidelines established by the National Advisory Council on State and Local Budgeting and the GFOA's best practices on budgeting and then to recognize individual governments that succeed in achieving that goal.

Our FY 2018-20 Operating Budget is intended to meet the GFOA's high standards and will be submitted again this year to determine eligibility for another award.

California Society of Municipal Finance Officers

Certificate of Award

Operating Budget Excellence Award Fiscal Year 2016-2017

Presented to the

Zone 7 Water Agency

For meeting the criteria established to achieve the Operating Budget Excellence Award.

January 31, 2017



John Adams
CSMFO President

Craig Boyer, Chair
*Professional Standards and
Recognition Committee*

Dedicated Excellence in Municipal Financial Reporting

The California Society of Municipal Finance Officers (CSMFO) presented an Operating Budgeting Excellence Award to Zone 7 Water Agency for its Annual Operating Budget for fiscal years ending 2016 and 2017. In order to receive this award, a governmental body must publish a budget document that meets programmatic criteria as a policy document, an operations guide, a financial plan and a communication device.

Our FY 2018-20 Operating Budget is intended to meet the society's high standards and will be submitted again this year to determine eligibility for another award.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
100 NORTH CANYONS PARKWAY LIVERMORE, CA 94551 PHONE (925) 454-5000 FAX (925) 454-5727

TRANSMITTAL LETTER

June 21, 2018

Dear Zone 7 Water Agency Directors:

It is my pleasure as the new General Manager of Zone 7 Water Agency to provide the second two-year Adopted Budget for the period July 1, 2018 through June 30, 2020 which was adopted by our Board via resolution #18-49 on June 20, 2018. This budget document is an award winning publication providing detailed information to assist all readers in understanding the breadth and depth of the Agency's operations.

This two-year budget incorporates and reflects the ongoing challenges of the agency in addressing the combined effects of the recession of 2009, the historic drought conditions of 2014-2016 which was followed an El Nino weather pattern that caused extensive flood damage in 2017. The mitigation of the fiscal effects brought on by these events has presented the agency with an opportunity to fine-tune our planning for flood protection, water supply, water delivery and water quality for those who live and work in the Livermore-Amador Valley.

The Agency is balancing short and long-term needs by investigating and embracing opportunities to streamline processes, reduce costs, invest in large-scale projects using debt, and level-out the fluctuations in revenue by combining fixed and variable components to water rates. The financial planning and budget process focused on balancing the financial necessities and realities relative to supporting the Agency's Mission, Vision, Values and Strategic Planning Priorities which serve as the basis for prioritizing these efforts.

The following pages of this budget presentation will show how the Agency presented the budget to the public in its comprehensive board memorandum, and is followed by an in-depth overview of each aspect of the Agency's finances and operations.

I wish to thank the Finance team in particular for creating this budget book as well as the Board of Directors and all Agency staff who work diligently to assure that adequate water supplies are available, flood protection is provided and safe water is delivered, all at the most reasonable rates possible.

Respectfully,

A handwritten signature in blue ink that reads "Valerie Pryor".

Valerie Pryor
General Manager



Alameda County Flood Control and Water Conservation District, Zone 7

100 North Canyons Parkway, Livermore, Ca 94551 • Phone (925) 454-5000 • Fax (925) 454-5727

ORIGINATING DIVISION: Administrative Services

CONTACT PERSON: Osborn Solitei, Treasurer/Assistant General Manager, Finance

AGENDA DATE: June 20, 2018

ITEM NO. 12

SUBJECT: Proposed Two-Year Budget for Fiscal Years 2018-20

SUMMARY:

- The Proposed Two-Year Budget for Fiscal Years (FY) 2018-20 assumes normal operations for the Operating Budgets (Funds 100, 110, & 200) with inflation ranging from 3-5% and no new programs or additional staff. The table below shows the Agency proposed budget for FY 2018-20:

Category	FY 2017-18 Projected Actuals	FY 2018-19 Proposed Budget	% Change from FY 2017-18 Projected Actuals	FY 2019-20 Proposed Budget	% Change from FY 2018-19 Proposed Budget
Revenue	\$201,580,998	\$147,341,267	-27%	\$147,984,792	0%
Expenses	159,169,085	199,831,249	26%	142,803,249	-29%
Reserves*	\$265,141,436	\$212,651,454	-20%	\$217,832,997	2%

- The Agency's FY 2018-20 Proposed Revenue Budget contains a two-year appropriation of \$295.3M, with \$147.3M in FY 2018-19 and \$147.9M in FY 2019-20. The budget is balanced with the use of reserves.
- The Agency's FY 2018-20 Proposed Expense Budget contains a two-year appropriation of \$342.6M, with \$199.8M in FY 2018-19 and \$142.8M in FY 2019-20. The spike in FY 2018-19 expenses is due to capital projects, which are funded with a mix of bond proceeds and reserves.
- The Proposed Two-Year Budget for Fiscal Years 2018-20 was presented at a Special Meeting of the Board of Directors on June 6, 2018.

RECOMMENDED ACTION:

Adopt the attached resolution approving the Proposed Two-Year Budget for Fiscal Years 2018-20.

ATTACHMENTS:

- Memorandum
- Resolution
- Exhibit A – FY 2018-20 Annual Budget by Account Classification
- Exhibit B – FY 2018-20 Proposed Budget Summaries
- Exhibit C – Proposed Capital Projects Listing



Alameda County Flood Control and Water Conservation District, Zone 7

100 North Canyons Parkway, Livermore, Ca 94551 • Phone (925) 454-5000 • Fax (925) 454-5727

MEMORANDUM

DATE: June 20, 2018
TO: Board of Directors
FROM: Osborn Solitei, Treasurer/Assistant General Manager, Finance

SUBJECT: Proposed Two-Year Budget for Fiscal Years 2018-20

BACKGROUND:

Staff annually prepares an operating budget on a fiscal year basis (July 1 through June 30); however, starting with the Fiscal Years 2016-17 and 2017-18 the annual budgets have transitioned to a two-year budget. Staff is proposing a two-year budget for Fiscal Years 2018-19 and 2019-20 with a Mid-Cycle budget review for FY 2019-20. The FY 2019-20 Budget reflects the Agency commitment to providing a reliable supply of high-quality water and effective flood-control system to the Livermore-Amador Valley. The Budget also supports priorities and policies approved by the Board.

An updated Reserve Policy was adopted by the Board in September 2016. These revisions helped to further strengthen the Agency's financial position, maintain its fiscal health and better positioned the Agency to maintain a favorable credit rating. The reserve levels discussed in this memorandum correlate to this updated reserve policy. The policy covers reserves for: Water Enterprise Fund Operating, Emergency Rate Stabilization and Drought Contingency Reserves, Flood Protection Operating and Capital Project Reserves, Water Renewal, Replacement & System-wide Improvements Capital Reserves, and Water Expansion Capital Reserves. The policy requirements and balances of all funds are in compliance with exception of Fund 100 which is currently and forecasted to continue to be under-funded.

The Agency also prepares a Capital Improvement Plan ("CIP"), (five years for Flood Protection and ten years for Water Enterprise), typically every two years, as a separate process from the annual budget process. The CIP outlines plans for capital projects and programs needed to carry out the goals and policy objectives of the Agency. The CIP is the basis for developing the annual capital budgets that get folded into the fiscal year budgets. The Agency Board adopted the Fiscal Year 2018-19 Water System CIP Update in October 2017. The Flood Protection CIP is forthcoming as the Agency works to update the Stream Management Master Plan (SMMP).

The Agency's Asset Management Plan ("AMP") documents how the Agency will fund and implement renewal and replacement projects for existing or planned assets. As part of the CIP update process, the Agency completed the 2017 AMP Plan Long-Term Funding Forecast Update ("2017 AMP Update") which included a funding schedule. On October 18, 2017 the Board adopted Resolution No. 17-81 funding AMP at \$12.3M in 2017 dollars beginning in FY 2018-19 with inflationary adjustments every year based on the Engineering News Record Construction Cost Index – currently projected at 4%.

Zone 7 submits an annual budget to Alameda County for three operating funds for inclusion in the County-wide budget (Funds 100, 110, & 200). Upon adoption by the Zone 7 Board, Zone 7's operating fund budgets are then included with the other County department's budgets and presented to the Board of Supervisors for adoption in June each year.

Financial issues and economic trends facing the Agency as described on the following pages include the flood damage of post drought rains, water rates, the fiscal impacts of water conservation efforts, investing in long-term reliability, allocating funds to the Asset Management Program for infrastructure maintenance and improvements, funding of minimum fund reserve levels, continued steady growth of the local economy and changing staffing levels.

Drought:

On May 9, 2016, Governor Edmund G. Brown issued an executive order to make water conservation “a California way of life.” The order directed regulators to develop and implement permanent, long-term improvements in water use that improve efficiency, reduce waste, and make communities and agriculture more resilient to future droughts.

On June 15, 2016 the Zone 7 Board passed a resolution lifting the Local Drought Emergency and recommended a 10% conservation target to support ongoing statewide water conservation efforts. As of April 2018, actual conservation levels continue to hover around 20%. Water year 2017 (October 1, 2016-September 30, 2017) became the wettest year on record in the Sacramento River watershed, the second wettest in the San Joaquin River watershed, and the fourth wettest year on record in the Zone 7 service area.

Given demand and supply conditions, Zone 7 can deliver 100% of requested water deliveries in 2018 and 2019 even if conditions turn critically dry in 2019. Zone 7 also expects to meet demands over 2020-2022, assuming average hydrologic conditions over that time.

Water Conservation Act of 2009:

The Water Conservation Act of 2009 (SBX7-7) sets an overall goal of reducing per capita urban water use by 20% by the end of 2020. Water demands on a per capita basis continue to decrease while fixed costs remain high.

Hydrologic regions of California Water providers were first required to submit assessments of their baseline urban water use, which was measured in gallons per capita per day (GPCD), to the California Department of Water Resources (DWR). From this it was possible to calculate the reductions in use that would be required for each watershed, taking account of different factors such as population, hydrology and land use, in order to meet the required 20% reduction.

Flood of 2017:

Flood control channels in Zone 7's service area experienced extensive damage during the winter 2017 storms. As Zone 7's service area was included within a federal Major Disaster Declaration for these storms, repairs of the resulting damages could be eligible for reimbursement from the Federal Emergency Management Agency (FEMA). While the application process continues into 2018 through coordination with the California Office of Emergency Services (Cal OES), Zone 7 expects reimbursement for costs related to emergency protective measures, debris removal, and repairs of a few bank slides. Any damages that occurred within channels that are part of the USACE PL 84-99 program were ineligible for FEMA funding.

On March 15, 2017, the Board adopted Resolution 17-10 declaring a local flood emergency. The declared storm disaster caused damage at 208 sites within Zone 7's regional flood protection system, estimated at \$44M and to take several years to repair. The proposed budget provides funding for 31 slide repairs at a cost \$4.3M in FY 2018-19 and 40 slide repairs at a cost of \$2.3M in FY 2019-20.

The Oroville Spillway was damaged in February 2017 by record rainfall that caused significant erosion and damage to the Lake Oroville main and emergency spillways. The Agency's total exposure for the Oroville is 2%, which will be amortized through 2035.

Livermore Valley Water Financing Authority Water Revenue Bonds, 2018 Series A:

On March 28, 2018 the Agency completed the sale of bonds to finance the ozone projects and Cawelo capital payment. With its AA+ from Standard & Poor's and AA from Fitch credit ratings, the Agency sold all of its \$64,010,000 Livermore Valley Water Financing Authority water revenue bonds. The bonds were 2018 Series A and will generate \$71,398,059 of proceeds with an interest rate of 3.54%. The \$71.4 million bond proceeds will be used for ozone projects at both water treatment plants (\$57 million) and refunding of the Cawelo Water District capital payment for \$14.1M.

Water Rates and Connection Fees:

In 2017, the Agency implemented a fixed charge for each Agency Retailer and other customers to recover 35% of the Agency's revenue requirements. The fixed charge provides increased revenue stability for the Agency and increase rate stability for its customers. In order to equitably recover the fixed charge, the fixed charge for each Agency Retailer and other customer is allocated proportionally to their average usage based on the previous two years. The Agency collects the fixed charge evenly over the course of 12 months from each Retailer and Direct Customer in order to ensure financial stability.

With the establishment of a fixed charge in 2017, the volume-based rate was adjusted to recover nearly 100% of revenue from volume-based rates to 65% cost recovery. The volume-based rate is a uniform rate charge to each Agency Retailer and other customers per each unit of water delivered. A four (4) year wholesale water rate study will be performed in the fall of 2018.

In 2017 the Agency Board adopted the Fiscal Year 2016-17 Municipal and Industrial Connection Fee Program Update. The update undertook a comprehensive re-evaluation of projected demands, and new connections in the Agency's service area, and the necessary Water System expansion projects to meet the needs of future customers. The study resulted in a 7.3% increase in the Alameda County Connection Fee and an 11.3% increase in the Dougherty Valley Connection Fee, which became effective May 1, 2017. The study recommended annual inflationary adjustments to the fee to keep pace with inflation.

Using 2013 as a base year for projected water demand, the service area's water demand is expected to grow by about 20 percent by 2040, from about 45,000 to about 54,400 acre-feet per year. Through buildout in 2040, a total of 24,533 new dwelling unit equivalents ("DUEs") are expected. DUE projections currently show a significant tapering-off after Fiscal Year 2028-29.

State Water Project Charges:

The State Water Project charges are by far the largest component of the Agency's budget spanning several funds (Fund 100, 110, & 130). The charges are increasing due to both capital debt service payments and operating costs. The fixed water purchases including the California Department of Water Resources (DWR) debt are paid through property tax and the variable water purchases is through rates.

The Agency purchases water from the State Water Project, which is the nation's largest publicly-built water storage and conveyance system serving over 25 million people throughout California, is by far the Agency's largest water source, providing over 80% of the treated water supplied to its customers on an annual average basis.

In practice, the actual amount of State Water Project water available to the Agency under the Table A allocation process varies from year to year due to hydrologic conditions, water demands of other contractors, existing State Water Project stored water, State Water Project facility capacity, and environmental/regulatory requirements.

Investing in Long-Term Water Reliability:

a) California WaterFix

On September 20, 2017, the Agency Board adopted a resolution to support California WaterFix and authorized the Agency to contribute up to \$250,000 for the next phase in 2018. The resolution also allowed for negotiation of participation in the Finance Joint Powers Authority (the "Finance JPA") and the Delta Conveyance and Construction Joint Powers Authority ("DCA") which will implement California WaterFix and provide oversight and fiscal control of the public's investment. State Water Project and Central Valley Project contractors who choose to participate in California WaterFix are expected to contribute interim funding in order to move the project forward until the Finance JPA issues the bonds needed to fund the project.

California WaterFix costs will be split among the contractors that receive the benefits from the project. An analysis of the cost impacts to the Agency suggests that, if costs are placed entirely on water rates, treated water rates would increase over the next ten to fifteen years by an estimated 20 percent to pay for the Agency's share of California WaterFix currently estimated at \$1,100 per AF using 2017 dollars

b) Sites Reservoir

On December 21, 2016, the Board authorized the General Manager to negotiate and execute the Phase 1 Reservoir Project Agreement for funding, based on the request for 20,000 AF previously approved by the Agency Board on July 20, 2016, with a total not-to-exceed cost of \$850,000 including contingency. The Sites Reservoir unit cost range is currently estimated up to around \$1,250/AF of delivered water south of the Delta

c) Los Vaqueros Reservoir Expansion

Los Vaqueros Reservoir, Contra Costa Water District's ("CCWD") reservoir in northeastern Contra Costa County, has been identified by the Agency as a facility that could reduce risk of water supply shortage to the Agency by providing State Water Project storage upstream of the Agency and facilitating a regional desalination project. Los Vaqueros Reservoir currently has a capacity of 160,000 AF following its expansion from 100,000 AF in 2012. CCWD is planning for possible further expansion of the reservoir to 275,000 AF and possible construction of the Transfer-Bethany Pipeline, which would connect the reservoir to the South Bay Aqueduct system.

d) Potable Reuse

Potable reuse is one of the water supply options being considered by the Agency, with wastewater potentially derived from the City of Livermore and/or Dublin San Ramon Services District ("DSRSD"). The Joint Tri-Valley Potable Reuse Feasibility Study was initiated in October 2016. The study is a partnership among the Agency and the Agency Retailers.

The preliminary findings indicate that potable reuse is feasible, with potential yield as high as 10,000 acre-feet per year and costs ranging from \$2,200 to \$2,500 per acre-foot based on the range of options evaluated; the associated capital costs range from \$112 million to \$222 million. In May 2018, the Board approved continued investigation of potable reuse and directed staff to work with the other Tri-Valley agencies to develop next steps and cost sharing arrangements to be considered by the Liaison Committee in the Fall of 2018. The Board will be updated on the results of the discussions with the agencies and the Liaison Committee.

Asset Management Program (AMP):

In 2017, the Agency updated its' Asset Management Plan Funding Update (2017 Update) providing a summary of the findings and recommendations of the work done to update the long-term funding forecast and related renewal funding needs for Zone 7 Water Agency's (AMP).

As part of the current update, the long-term funding forecast has been updated to reflect Capital Improvement Projects (CIP) that were completed and assets that were renewed since 2011, incorporate new and future projects, and the long-term renewal of assets. With the addition of new facilities, and as the water system infrastructure ages with time, the annual funding of the Renewal/Replacement and System-wide Improvement Fund from the Water Enterprise Fund is increasing.

Steady Economic Growth:

New development within the service area has been picking up. There is also a moderate increase in property values that has resulted in stabilization of the 2015 thru 2017 tax assessment rolls. After a downturn in growth due to the recession starting in 2008, the Agency's service area has experienced stronger growth in more recent years and is expected to continue growing for at least the next 15 years. Using 2015 as a base year, the Agency's service area population is projected to grow from 244,000 to 301,000 people by buildout in 2040, which is a 23 percent increase. This overall growth is providing slight growth in new water rate payers, property tax income and connection fee revenue.

Staffing

There are 126.5 full-time equivalent (FTE) authorized positions. The FY 2018-19 Budget proposes funding 108.5 FTE positions which includes 16 vacancies and the remaining 18 positions are left unfunded due to the Soft Hiring Freeze initiative that began in FY 2009-10. Six positions are recommended to be added to the Soft Hiring Freeze list in FY 2018-19, only. These six positions are recommended to be funded in FY 2019-20.

Positions added to Soft Hiring Freeze for FY 2018-19, only:

1. Assistant General Manager, Engineering
2. Geographic Information Systems Analyst
3. Senior Procurement & Contracts Specialist
4. Construction Inspector
5. Maintenance Manager
6. Operations Manager

BUDGET HIGHLIGHTS:

The FY 2018-20 Proposed Budget includes the following highlights:

Revenue highlights:

- Reduced water sales due to water conservation:
 - Calendar Year 2014 achieved 31% decrease from 2013
 - Calendar year 2015 achieved 42% decrease from 2013
 - Calendar year 2016 achieved 36% decrease from 2013
 - Calendar year 2017 achieved 28% decrease from 2013
 - Projecting 18% conservation for FY 2017-18
 - Assumed 17% conservation for the FY 2018-19 budget
 - Assumed 15% conservation for the FY 2019-20 budget
- The Water Enterprise Operations (Fund 100) proposed budget projects a potential water rate increase of CPI plus 5% for Calendar Years 2019 and 2020 to achieve a balanced budget. A Wholesale Water Rate Study will be performed in Fall 2018.
- Assumed 5% growth in assessed value for property taxes (Flood Protection only).

Expense highlights:

- Debt service payments of \$2.1M (interest only) in FY 2018-19 and \$4.2M (principal and interest) in FY 2019-20. These payments are funded from Fund 100 and Fund 130.
- Purchasing 750 acre-feet of water from River Garden Farms at a cost of \$0.6M or \$760 per AF.
- Higher utility costs because more groundwater will be pumped. The groundwater basin is nearly full.
- AMP funding of \$12.3M for FY 2018-19 and \$12.8M for FY 2019-20 per the Board-approved AMP update.
- Funding for the PPWTP Ozone and Upgrades project at a cost of \$83M. The PPWTP Upgrades project is funded from reserves and 50% of the PPWTP Ozone project is funded with bond proceeds. The construction contract for the DWTP Ozone project was awarded in FY 2017-18 and is funded with bond proceeds.
- Funding for the emergency repairs resulting from the 2017 storms will continue through FY 2019-20.

BUDGET SUMMARY:

The Agency's Proposed FY 2018-20 Budget is shown in the table below:

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue	\$135,149,452	\$187,359,541	\$201,580,998	\$147,341,267	\$147,984,792	-27%	0%
Expenses	106,177,931	148,400,074	159,169,085	199,831,249	142,803,249	26%	-29%
Reserves*	\$222,729,523	\$242,724,235	\$265,141,436	\$212,651,454	\$217,832,997	-20%	2%

*Refers to reserves at fiscal year-end; increase in FY 2017-18 is largely due to \$57M in bond proceeds.

- The Agency's FY 2018-20 Proposed Expense Budget contains a two-year appropriation of \$339M, with \$198.4M in FY 2018-19 and \$141.4M in FY 2019-20. The spike in FY 2018-19 is due to planned capital projects from the CIP.
- The Agency's FY 2018-20 Proposed Revenue Budget contains a two-year appropriation of \$295.3M, with \$147.3M in FY 2018-19 and \$147.9M in FY 2019-20. The budget is balanced with the use of reserves and debt proceeds.

OPERATING BUDGETS:

Zone 7 staff prepared proposed FY 2018-19 and FY 2019-20 budgets for the three operating funds (Funds 100, 110 and 200) and the summary of these proposed budgets are shown below:

Water Enterprise Operations Fund – Fund 100

Primary Funding Source: Water Rates

The purpose of this fund is to ensure the delivery of high quality water to the Livermore-Amador Valley. This operations and maintenance fund includes water treatment and distribution of potable (drinking) water; distribution of untreated agricultural/irrigation water; and surface water and groundwater management. Water distributed is a combination of locally stored and imported water from the State Water Project. Activities include water treatment; water quality analysis; water resource management and groundwater recharge and protection; maintenance; and water supply planning and engineering.

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue	\$43,618,851	\$49,347,439	\$49,037,866	\$47,951,037	\$52,857,980	-2%	10%
Expenses	40,771,195	47,981,787	45,204,701	46,839,725	51,642,901	4%	10%
Reserves*	\$8,254,792	\$9,495,537	\$12,087,957	\$13,199,269	\$14,414,348	9%	9%
Minimum Reserve Level				\$16,991,970	\$18,394,073		
Above/(Below Minimum)				(\$3,792,701)	(\$3,979,724)		

* Refers to reserves at fiscal year-end.

Reserve Policy Levels:

FY 2018-19

FY 2019-20

Min \$16,991,970

\$18,394,073

Max \$36,508,539

\$39,705,299

FY 2017-18 End-of-Year Projections

- The overall end-of-year expenditure projection is \$2.8M less than budget:
 - In the first half of the FY 2017-18 the Agency sent water to the Semitropic and Cawelo water storage banking programs. On May 21, 2018, DWR announced a 35% Table A allocation for 2018, reducing the need to recover water from Semitropic in 2018.
 - The FY 2017-18 Amended Budget included a debt service payment of \$1.2M for the DWWT Ozone bonds, however based on the current debt financing schedule, the first debt service payment of interest will be in January 2019 and not occurring in FY 2017-18.
 - The end-of-year projections for other expenses have been lowered based on YTD actuals and prior-year trends.

FY 2018-19 Proposed Budget

- The FY 2018-19 proposed revenue budget is \$47.9M, 2% lower than the FY 2017-18 end-of-year projection of \$49M, primarily due to:
 - The Temporary Conservation Surcharge of \$0.57/CCF sunset on December 31, 2017.
 - This is offset by higher estimated water deliveries of 33,085 acre-feet – with an assumed conservation rate of 17%.
 - The proposed budget projects a potential water rate increase of CPI plus 5% for Calendar Years 2019 and 2020 to achieve a balanced budget and no use of reserves.
 - A Wholesale Water Rate Study will be performed in Fall 2018.
- The FY 2018-19 proposed expense budget is \$46.8M, 4% higher than FY 2017-18 end-of-year projection of \$45.2M, primarily due to:
 - Salaries and wages increasing by 2% based on approved cost of living increases, offset by an additional six positions resulting in \$1.4M in soft hiring freeze savings in FY 2018-19 only.
 - A debt service interest payment of \$1.7M which will be paid in January 2019.
 - Purchasing 750 acre-feet of water from River Garden Farms at a cost of \$0.6M or \$760 per AF.
 - Higher utility costs because more groundwater will be pumped. The groundwater basin is nearly full.
 - For other costs, increases are due to projected inflation ranging from 3-5%.
- Projected reserves at the end of FY 2018-19 are \$13.2M which is \$3.8M below the Board-approved minimum of \$16.9M.

FY 2019-20 Proposed Budget

- The FY 2019-20 proposed revenue budget is \$52.9M, 10% higher than the FY 2018-19 proposed budget of \$47.9M, primarily due to:
 - Higher estimated water deliveries of 34,065 acre-feet – with an assumed conservation rate of 15%.
 - Project potential rate increases to present a balanced budget (i.e., no use of reserves).

- The FY 2019-20, the proposed expense budget is \$51.6M, 10% higher than the proposed FY 2018-19 budget of \$46.8M, primarily due to:
 - Debt service payment (principal and interest) of \$3.1M.
 - \$1M in increase water costs. The agency plans to send 9,000 AF of water to the Semitropic and Cawelo groundwater banks.
 - Unfreezing six soft hiring freeze positions that will be implemented in FY 2018-19.
 - \$0.5M higher transfer to Fund 120 - from \$12.3M to \$12.8M.
 - For other costs, increases are due to projected inflation ranging from 3-5%
- Projected reserves at the end of FY 2019-20 are \$14.4M which is \$4M below the Board-approved minimum reserve level target of \$18.4M.

State Water Facilities Fund – Fund 110
Primary Funding Source: Property Taxes

This fund finances the “fixed cost” payment to the State Department of Water Resources (DWR) to import water to Zone 7. The purpose is to pay the costs for use of the State water delivery system, which includes repayment of voter approved, State incurred, long-term debt.

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue	\$24,412,737	\$25,806,106	\$24,782,408	\$25,401,261	\$25,585,580	2%	1%
Expenses	20,985,604	25,109,685	19,203,854	22,435,644	27,628,997	17%	23%
Reserves*	\$16,363,657	\$9,495,537	\$21,942,211	\$24,907,828	\$22,864,411	14%	-8%

* Refers to reserves at fiscal year-end

Reserve Policy Levels:

	FY 2018-19	FY 2019-20
Min	\$13,814,499	\$14,357,627
Max	\$27,628,997	\$28,715,253

This is a pass-through fund for fixed charges associated with the State Water Project.

FY 2017-18 End-of-Year Projections

- The overall end-of-year expenditure projection is \$5.9M less than budget based on actual DWR invoices for calendar years 2017 and 2018. On May 24, 2018, DWR informed Zone 7 that for the past three years DWR under billed Zone 7's share of the Transportation Minimum OMP&R Component charges related to our Table A transfers in California Aqueduct Reaches down to Kern County and will true-up (or collect) these charges in Calendar Year 2019.

FY 2018-19 Proposed Budget

- The FY 2018-19 proposed revenue budget is \$25.4M, 2% higher than the FY 2017-18 end-of-year projection of \$24.8M. The proposed property tax levy is the same as FY 2017-18.
- The FY 2018-19, the proposed expense budget is 17% higher than the FY 2017-18 end-of-year projection of \$19.2M, primarily due to DWR's estimates for 2018 and 2019, which includes inflation and the true-up of under billed Transportation Minimum OMP&R Component charges.
- Projected reserves at the end of FY 2018-19 are \$24.97M, which is less than the maximum.

FY 2019-20 Proposed Budget

- The FY 2019-20 proposed revenue budget is \$25.6M, There is no proposed increase to the property tax levy.
- The FY 2019-20 proposed expense budget is 23% higher than the proposed FY 2018-19 budget of \$22.4M, primarily due to projections for the 2019 and 2020 statement of charges increasing based on inflation and recent trends.
- Projected reserves at the end of FY 2019-20 are \$22.8M, which is less than the maximum.

Flood Protection– Fund 200

Primary Funding Source: Property Taxes.

This fund provides for general administration and flood control services to ensure the controlled drainage of the Valley's excess stormwater runoff. Zone 7 manages a watershed of 425 square miles in eastern Alameda County, receiving drainage from parts of Contra Costa, Santa Clara and San Joaquin Counties. More than 37 miles of flood control channels and regional drainage facilities are owned and maintained by Zone 7. This fund finances a comprehensive year-round maintenance program that includes repairing slides and erosion, refurbishing access roads and associated drainage ditches, installing and repairing gates and fences, and maintaining landscaped areas. The table below shows the proposed two-year budget for this fund.

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue	\$8,361,033	\$8,364,070	\$8,573,394	\$9,219,902	\$9,596,217	8%	4%
Expenses	7,129,108	22,133,422	17,701,289	13,004,855	13,908,182	-27%	7%
Reserves*	\$21,898,222	\$4,407,782	\$12,770,327	\$8,985,374	\$4,673,409	-30%	-48%

* Refers to reserves at fiscal year-end

Reserve Policy Levels:

	FY 2018-19	FY 2019-20
Min	\$2,267,511	\$2,201,128
Max	N/A	N/A

FY 2017-18 End-of-Year Projections

The overall end-of-year expenditure projection is \$4.4M less than budget primarily because major capital projects (i.e. Chain of Lakes Management Area) related to the SMMP will be deferred until the SMMP amendment is adopted and the need to focus on repairs resulting from the 2017 storms. On March 15, 2017, the Board adopted Resolution No. 17-10 declaring a local flood emergency. The declared storm disaster caused damage at 208 sites within Zone 7's regional Flood Protection system, estimated at \$44M and several years to repair:

- The Foothill Property emergency repair project is complete.
- Repair of five high priority projects has been completed at a cost of \$1.4M.
- On March 7, 2018, the Board adopted Resolution No. 18-17 authorizing up to \$3.5M for project coordination and cost share with the United States Army Corp of Engineers (USACE) to repair 37 damaged sites under the PL84-99 program. The total cost for repairing 37 sites including engineering, design and construction is estimated to be \$15M, with Zone 7 sharing 20% of the total cost.
- On May 16, 2018, the Board adopted Resolution No. 18-44 for 2018 Rehabilitation of Flood Control Channels, Phase 1 (FEMA DR 4301) for a total of \$2.8 million to repair another 26 sites in the 2018 summer.

FY 2018-19 Proposed Budget

- The FY 2018-19 proposed revenue budget is \$9.2M. FY 2018-19 revenues are increasing relative to the FY 2017-18 end-of-year projection of \$8.6M based on an estimated 5% increase in property tax revenue assessments.
- The proposed FY 2018-19 expense budget is \$13M, 27% less than the FY 2017-18 end-of-year projections of \$17.7M because FY 2017-18 includes funding for over 60 repairs. Funding for the emergency repairs resulting from the 2017 storms will continue through FY 19-20:
 - FY 2018-19 includes design and construction of damaged 31 (6 in-house) sites estimated at \$4.3M.
 - Routine maintenance and channel repairs are estimated at \$4.3M.
- Capital Projects total \$2.4M and include:
 - \$1.6M for the Arroyo Mocho Medeiros Parkway project (43% Fund 200)
 - \$0.5M for a Flood Protection Asset Management Program (100% Fund 200)
 - \$0.2M for Zone 7's contribution to the Castlewood EPA grant project (100% Fund 200)
- Projected reserves at the end of FY 2018-19 are \$8.9M, which includes maximum funding for the for the Operating Reserve of \$5.6M and the remaining \$3.3M is the Capital Projects Reserve which has no maximum.

FY 2019-20 Proposed Budget

- The FY 2019-20 proposed revenue budget is \$9.6M. FY 2019-20 revenues are increasing relative to the FY 2018-19 proposed budget of \$9.2M based on an estimated 5% increase in property tax revenue assessments.
- The proposed FY 2019-20 expense budget is \$13.9M, 7% more than the FY 2018-19 proposed budget of 13M.
 - FY 2019-20 includes design and construction of 40 sites estimated at \$2.3M.
 - Routine maintenance and channel repairs is estimated at \$4.3M.
 - Capital Projects total \$4.2M and include:
 - \$1.6M for the Arroyo Mocho Medeiros Parkway project (43% in Fund 200)
 - \$1.2M for Flood Control Corporation Yard and Materials Storage Facilities (59% Fund 200)
 - \$0.7M for Zone 7's contribution to the Concanon EPA grant project (43% in Fund 200)
 - \$0.2M for Zone 7's contribution to the Castlewood EPA grant project (100% in Fund 200)
- Projected reserves at the end of FY 2019-20 are \$4.7M, which includes minimum funding for the for the Operating Reserve of \$2.2M and the remaining \$2.5M is the Capital Projects Reserve which has no maximum.

CAPITAL BUDGETS:

The Zone 7 Board also adopts budgets for the three capital funds below (Funds 120, 130 and 210). The FY 2018-19 Ten-Year Water System Capital Improvement Plan (CIP) was adopted by the Board in October 2017 for the Water System only. The CIP forms the basis for the two-year budget. A Ten-Year Flood Protection CIP will be developed subsequent to the adoption of the SMMP Amendment.

Water Enterprise Renewal/Replacement & System-wide Improvements – Fund 120

Primary Funding Source: Water Rates via a transfer from the Fund 100

This fund is a sub-fund of Fund 100 – Water Enterprise Operations Fund. The purpose of this fund is to ensure that funding is available for capital renewal, replacement and system-wide improvement projects needed to keep the current water treatment and delivery systems functioning effectively. Fund 120 pays for capital projects as outlined in the Agency’s Asset Management Plan and the Capital Improvement Plan.

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue and Other Financing Sources	\$17,048,257	\$48,154,593	\$71,373,655	\$13,171,212	\$14,643,558	-82%	11%
Expenses	9,776,219	20,881,561	50,448,566	37,956,477	8,736,436	-25%	-77%
Reserves*	\$36,515,967	\$59,779,130	\$57,441,056	\$32,655,791	\$38,562,913	-43%	18%

*Refers to reserves at fiscal year-end.

Reserve Policy Levels:

	FY 2018-19	FY 2019-20
Min	\$20,425,000	\$18,774,000
Max	N/A	N/A

FY 2017-18 End-of-Year Projections

- The FY 2017-18 end-of-year revenue and other financing sources projection includes \$57M in bond proceeds for the ozone projects at DWTP and PPWTP.
- The FY 2017-18 year-end expenditure projections reflects awarding \$44M for construction phase contracts for the DWTP Ozone project which was awarded by the Board on March 7, 2018.

FY 2018-19 Proposed Budget

- The FY 2018-19 proposed revenue and other financing sources budget is \$13.2M, significantly less than the FY 2017-18 end-of-year projections because FY 2017-18 includes bond proceeds. The budget includes new AMP funding amount of \$12.3M for FY 2018-19. A new AMP funding schedule was approved by the Board on October 18, 2017 (Resolution No. 17-81). The Board approved a funding amount of \$12.3M in 2017 dollars beginning in FY 2019-18 with inflationary adjustments every year based on the Engineering News Record Construction Cost Index (ENRCCI) – currently projected at 4%.

- The proposed FY 2018-19 expense budget is \$37.9M, which includes the following major capital projects:
 - \$17.1M for the PPWTP Ozone Project (50% funded from bond proceeds in Fund 120).
 - \$14.2M for the PPWTP Upgrades Project (30% in Fund 120).
 - \$3.4M for Chain of Lake 1 Yard and Slope Stabilization.
- Projected reserves at the end of FY 2018-19 are \$32.6M, which is \$12.2M above the minimum. This amount includes a Rate Stabilization Reserve of \$6.3M, approved by the Board as part of the debt issuance.

FY 2019-20 Proposed Budget

- The FY 2019-20 proposed revenue and other financing sources budget is \$14.6M, 11% more than the FY 2018-19 Proposed Budget of \$13.2M:
 - \$0.5M increase in AMP funding which includes an inflationary adjustments every year based on the ENRCCI – currently projected at 4%.
 - The actual funding for FY 2019-20 will be calculated based on the actual ENRCCI and adjusted in the FY 2019-20, mid-cycle budget amendment in June 2019.
 - A \$1.1M reimbursement from Dublin San Ramon Services District (DSRSD) for the Dougherty Reservoir Recoating project. DSRSD pays for 50% of the total \$2.2M project cost.
- The proposed FY 2019-20 expense budget is \$8.7M, which includes the following major capital projects:
 - \$2.2M for the Dougherty Reservoir Recoating project (50% Zone 7 and 50% DSRSD)
 - \$1.1M for the MGD Concentrate Discharge Pipeline Inspection and Cleaning project
 - \$0.7M for MGD RO Membrane Replacement
 - \$0.6M for the DVWTP HVAC Replacement project
 - \$0.3M for planning for the Chain of Lakes - Cope Lake to DVWTP Pipeline
 - \$0.1M for PPWTP Solar Panels Installation
- Projected reserves at the end of FY 2019-20 are \$38.5M, which is \$19.8M above the minimum. This amount includes a Rate Stabilization Reserve of \$6.3M, approved by the Board as part of the debt issuance.

Water Enterprise Capital Expansion – Fund 130
Primary Funding Source: Water Connection Fees

The purpose of this fund is to ensure that the Agency is able to meet future needs of new customers with development paying its own way. The program is primarily intended to provide funding for new or expanded facilities and additional water supplies to serve additional capacity requirements of development, many of them fixed (i.e., bond payment obligations for debt incurred by others to increase capacity, such as the enlargement portion of the South Bay Aqueduct Improvement and Enlargement Project). Developer fees can only be used for projects related to water system expansion.

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue	\$37,776,815	\$50,233,507	\$42,075,127	\$46,478,583	\$39,994,644	10%	-14%
Expenses	25,674,251	25,107,328	24,866,043	73,504,017	36,282,463	196%	-51%
Reserves*	\$81,547,612	\$103,277,957	\$98,756,696	\$71,731,262	\$75,443,443	-27%	5%

*Refers to reserves at fiscal year-end

Reserve Policy Levels:

	FY 2018-19	FY 2019-20
Min	\$14,033,746	\$14,012,000
Max	N/A	N/A

FY 2017-18 End-of-Year Projections

- The FY 2017-18 end-of-year revenue projection is less than budget because the connection fee revenue projection has been adjusted downward based on YTD trends (from 1,693 connections to 1,354). Expenses are slightly less than budget.

FY 2018-19 Proposed Budget

- The FY 2018-19 proposed revenue budget is \$46.5M, 10% more than the FY 2017-18 end-of-year revenue projection of \$42.1M because water connections are expected to increase slightly from 1,354 equivalent connections to 1,493 equivalent connections. Revenue also assumes 3% annual increases to the water connection fee (fees are adjusted on January 1 of each year based on the change in the ENRCCI).
- The proposed FY 2018-19 expense budget is \$73.5M, which includes the following major capital projects:
 - \$33M for the PPWTP Upgrades Project (70% in Fund 130)
 - \$17M for the PPWTP Ozone Project (50% funded from reserves in Fund 130)
 - \$15.9M for the South Bay Aqueduct Improvement and Enlargement debt service
 - \$0.4M for the newly-refinanced Cawelo debt service interest payment
- Projected reserves at the end of FY 2018-19 are \$71.7M, which is \$57.7M above the minimum. This amount includes a Rate Stabilization Reserve of \$2.3M, approved by the Board as part of the debt issuance and sinking funds totaling \$16.6M.

FY 19-20 Proposed Budget

- The FY 2019-20 proposed revenue budget is \$39.9M, 14% less than the FY 2018-19 proposed budget of \$46.4M because the number of connections projected in FY 2019-20 is less (from 1,493 to 1,230). Revenue also assumes 3% annual increases to the water connection fee (fees are adjusted on January 1 of each year based on the change in the ENRCCI).
- The proposed FY 2019-20 expense budget is \$36.3M, which includes the following major capital projects:
 - \$15.4M for the South Bay Aqueduct Improvement and Enlargement debt service
 - \$8.9M for Busch Valley Well
 - \$4.6M for Water Supply Planning and Projects
 - \$1.1M for the newly-refinanced Cawelo debt service principal and interest payment
- Projected reserves at the end of FY 2019-20 are \$75.4M, which is \$61.4M above the minimum. This amount includes a Rate Stabilization Reserve of \$2.3M, approved by the Board as part of the debt issuance and sinking funds totaling \$18.4M.

Flood Protection Drainage Development Impact Fee Fund – Fund 210
Primary Funding Source: Development Impact Fees.

The purpose of this fund is to ensure that Zone 7 is able to meet future needs for expansion-related flood control facilities. The program is primarily intended to provide funding for any flood control facilities required for new development. Funds are expended on the planning, design, lands and right of way acquisition, environmental review, permitting, and construction for drainage projects.

Category	2016-17 Audited Actual	2017-18 Amended Budget	2017-18 Projected Actuals	2018-19 Proposed Budget	2019-20 Proposed Budget	% Change (2018-19 vs. 2017-18 Projections)	% Change (2018-19 vs. 2019-20)
Revenue	\$3,931,759	\$5,453,826	\$5,738,548	\$5,119,272	\$5,306,813	-11%	4%
Expenses	1,841,554	7,186,291	1,744,632	6,090,531	4,604,270	249%	-24%
Reserves*	\$58,149,272	\$56,268,292	\$62,143,188	\$61,171,929	\$61,874,472	-2%	1%

*Refers to reserves at fiscal year-end

Reserve Policy Levels
Min N/A
Max N/A

FY 2017-18 End-of-Year Projections

The overall end-of-year expenditure projection is \$5.4M less than budget primarily because major capital projects (i.e. Chain of Lakes Management Area) related to the SMMP will be deferred until the SMMP amendment is adopted. In Summer of 2018, staff plans to bring forward a recommendation to award a consulting contract to complete a Development Impact Fee Study and SMMP Financing strategy.

FY 2018-19 Proposed Budget

- The FY 2018-19 proposed revenue budget is \$5.1M, 11% less than the FY 2017-18 end-of-year revenue projection of \$5.7M.
- The proposed expense budget for FY 2018-19 is \$6.1M, and includes the following major capital projects:
 - \$3.1M for the Camp Parks Detention Basin
 - \$2.2M for the Arroyo Mocho Medeiros Parkway project (57% in Fund 210)
 - \$0.1M for Zone 7’s contribution to the Concanon EPA grant project (57% in Fund 210)

FY 2019-20 Proposed Budget

- The FY 2018-19 proposed revenue budget is \$5.3M, 4% more than the FY 2018-19 Proposed Budget of \$5.1M.
- The proposed expense budget for FY 2019-20 is \$4.6M, and includes the following major capital projects:
 - \$2.2M for the Arroyo Mocho Medeiros Parkway project (57% in Fund 210)
 - \$0.8M for Flood Control Corporation Yard and Materials Storage Facilities (41% in Fund 210)
 - \$0.9M for Zone 7’s contribution to the Concanon EPA grant project (57% in Fund 210)

OTHER FUNDS

Environmental Protection Agency – Fund 230

Primary Funding Source: Federal Grant fund

This fund accounts for the Environmental Protection Agency (EPA) grant used for a specific purpose, activity or program. The purpose of this project “Preparing for the Storm” will re-establish floodplain and riparian habitat along over 2 miles of steelhead streams, restore 10 acres of riparian habitat including rare Sycamore Alluvial Woodland, restore natural hydrology through levee setbacks on vineyard property, improve stormwater capture, reuse an estimated 50,000 cubic yards/year of coarse sediment, and reduce erosion. This project implements water quality and habitat actions listed under the San Francisco Estuary Partnership Comprehensive Conservation & Management Plan (SFEP CCMP). These actions will greatly benefit the fish, wildlife, and humans that depend on a thriving, healthy San Francisco Estuary. The grant provides full federal funding amount of \$1,131,000.

The table below shows projected revenue and expenses for this fund.

Fund 230 – Environmental Protection Agency (EPA)	2017-18 Amended Budget	2017-18 Projected Actuals	FY 2018-19 Projection	FY 2019-20 Projection
Revenue (Grant Proceeds)	\$1,131,000	\$351,963	\$222,825	\$439,288
Expense	\$1,131,000	\$351,963	\$222,825	\$254,719

Water Facilities Fund – Fund 300

The purpose of this fund is to be used for Chain of Lakes mitigation and planning reserve, quarry discharge exports, miscellaneous fees and deposits, and permit inspection deposits.

Fund	FY 2017-18 Beginning Audited Fund Balance	FY 2017-18 Projected FYE Interest Income	FY 2018-19 Projected Beginning Fund Balance
Fund 300 - Water Facilities Fund	\$3,458,390	\$36,099	\$3,494,489

Water Supply and Reliability Fund – Fund 310

Per the Board resolution # 07-1986, the purpose of this fund is to be used for future water, water storage and Delta-related projects.

Fund	FY 2017-18 Beginning Audited Fund Balance	FY 2017-18 Projected FYE Interest Income	FY 2018-19 Projected Beginning Fund Balance
Fund 310 - Water Supply and Reliability Fund	\$4,217,211	\$39,066	\$3,690,507

- On September 15, 2017, the Zone 7 Board adopted Resolution No. 17-75 supporting the California WaterFix and authorizing up to \$250K from Fund 310 for a gap funding agreement to cover costs starting on January 1, 2018.
- On December 21, 2016, the Board adopted Resolution No. 16-191 authorizing the General Manager to negotiate and execute the Phase 1 Reservoir Project Agreement for funding in the amount of \$850,000 from Fund 310.
- On October 26, 2016, Zone 7 accepted the Sites Project Authority's counter-offer to participate in the Phase 1 Reservoir Project Committee at 11,380 AF Class 1 water and 8,620 AF of Class 2 water.
- On September 21, 2016, the Board also approved contributions of \$100,000 and \$75,000 from Fund 310 for participation in Los Vaqueros Reservoir Expansion Project planning and Lake Del Valle Expansion study, respectively.
- In the future, staff may also propose using Funds 300 and 310 for other water supply projects, including but not limited to:
 - Chain of Lakes Pipeline
 - Potable Reuse Water
 - Future Phases of Sites Reservoir and/or other storage projects
 - Additional gap funding for the California WaterFix

RECOMMENDED ACTION:

Adopt the attached resolution approving the Proposed Two-Year Budget for Fiscal Years 2018-20.

ATTACHMENTS:

Resolution

Exhibit A – FY 2018-20 Annual Budget by Account Classification

Exhibit B – FY 2018-20 Proposed Budget Summaries

Exhibit C – Proposed Capital Projects Listing

**Exhibit A - FY 2018-19
Annual Budget by Account Classification**

Summary of Annual Budget by Account Classification - FY 2018-19 Proposed Budget

FY 2018-19 PROPOSED BUDGET	Fund 100 Water Enterprise Operations	Fund 110 State Water Facilities	Fund 120 Water Enterprise Capital Renewal/Replacement/Improvements	Fund 130 Water Enterprise Capital Expansion	Fund 200 Flood Protection/General Fund	Fund 210 Flood Protection Development Impact Fees	Total
1 Available Fund Balance 7/1/2017	\$ 8,254,791	\$ 16,363,657	\$ 36,515,967	\$ 81,547,612	\$ 21,898,222	\$ 58,149,272	\$ 222,729,522
2 FY 2017-18 Projected Change in Fund Balance	3,833,165	5,578,554	20,925,089	17,209,084	(9,127,896)	3,993,916	42,411,913
3 Estimated Fund Balance 7/1/2018	12,087,957	21,942,211	57,441,056	98,756,696	12,770,327	62,143,188	265,141,435
4 Revenue							
5 Water Sales & Service	47,640,173	1,854,602					49,494,775
6 Property Taxes		20,150,000			8,841,052		28,991,052
7 Development Fees			420,000	42,537,656		4,494,244	47,451,900
8 Charges for Services	49,545		3,000		47,650		100,195
9 Aid from Governmental Agencies		45,610			64,700		110,310
10 Investment Earnings	127,019	243,578	448,212	848,124	155,590	600,028	2,422,552
11 Other Revenue	134,300	3,107,471		3,092,803	110,910	25,000	6,470,484
12 Subtotal (before transfers)		25,401,261	871,212	46,478,583	9,219,902	5,119,272	135,041,268
13 Transfers			12,300,000	-			12,300,000
14 Total Revenue	47,951,037	25,401,261	13,171,212	46,478,583	9,219,902	5,119,272	147,341,268
15 Expenses							
16 Personnel	15,266,665		1,301,306	428,723	1,728,983	300,880	19,026,557
17 Professional Services	2,645,695				3,536,140	70,519	6,252,354
18 County Services	1,603,668						1,603,668
19 Water	4,825,802	22,435,644		19,049,100			46,310,546
20 Chemicals	2,337,648						2,337,648
21 Utilities	2,361,693						2,361,693
22 Communications	173,421				3,200		176,621
23 Repairs and Maintenance	2,040,641				5,895,197		7,935,838
24 Rental Services	122,203				21,000		143,203
25 Other General Office Services/ Supplies	481,070				107,037	2,500	590,607
26 Organizational Membership/ Participation	456,499				31,000		487,499
27 Training and Travel	129,562				15,000		144,562
28 Water Conservation	153,507						153,507
29 Capital Projects			36,655,171	53,594,160		5,716,632	95,965,963
30 Equipment, Furniture and Vehicles	51,834						51,834
31 Land and Facility Improvements					1,653,565		1,653,565
32 Debt Service	1,692,410			432,033			2,124,443
33 Subtotal (before transfers)	34,342,318	22,435,644	37,956,477	73,504,016	12,991,122	6,090,531	187,320,108
34 Transfers	12,497,406				13,733		12,511,139
35 Total Expenses	46,839,724	22,435,644	37,956,477	73,504,016	13,004,855	6,090,531	199,831,247
36 Estimated Fund Balance June 30, 2019	13,199,270	24,907,828	32,655,791	71,731,263	8,985,374	61,171,929	212,651,455
37 Reserve Balances							
38 Operating	5,367,108	24,907,828			5,668,779		35,943,715
39 Rate Stabilization	3,353,326		6,300,000	2,300,000			11,953,326
40 Emergency	4,478,836						4,478,836
41 Drought Contingency							-
42 Capital Projects			26,355,791	52,838,449	3,316,596	61,171,929	143,682,765
43 Sinking Funds - FY 2018/19 Contributions							
44 Building Sinking Fund							
45 Future Contractor's Share of the South Bay Aqueduct				590,000			590,000
46 South Bay Aqueduct Enlargement				1,210,000			1,210,000
47 Sinking Funds Reserve Balance				16,592,814			16,592,814
48 Total Reserves	\$ 13,199,270	\$ 24,907,828	\$ 32,655,791	\$ 71,731,263	\$ 8,985,374	\$ 61,171,929	\$ 212,651,455
49 Change in Fund Balance (use of reserves)	1,111,313	2,965,617	(24,785,265)	(27,025,433)	(3,784,953)	(971,259)	(52,489,980)
50 Reserve Analysis							
51 Over/(Under) Minimum	(3,792,700)	11,093,330	12,230,791	57,697,517	3,401,267	n/a	

Note: Totals may not add due to rounding.

Exhibit A - FY 2019-20
Annual Budget by Account Classification

Summary of Annual Budget by Account Classification - FY 2019-20 Proposed Budget

FY 2019-20 PROPOSED BUDGET	Fund 100 Water Enterprise Operations	Fund 110 State Water Facilities	Fund 120 Water Enterprise Capital Renewal/Repla cement/Improv	Fund 130 Water Enterprise Capital Expansion	Fund 200 Flood Protection/ General Fund	Fund 210 Flood Protection Development Impact Fees	Total
1 Estimated Fund Balance 7/1/2018	\$ 12,087,957	\$ 21,942,211	\$ 57,441,056	\$ 98,756,696	\$ 12,770,327	\$ 62,143,188	\$ 265,141,435
2 FY 2018-19 Projected Change in Fund Balance	1,111,313	2,965,617	(24,785,265)	(27,025,433)	(3,784,953)	(971,259)	(52,489,980)
3 Estimated Fund Balance 7/1/2019	13,199,270	24,907,828	32,655,791	71,731,263	8,985,374	61,171,929	212,651,455
4 Revenue							
5 Water Sales & Service	52,539,364	2,024,319					54,563,683
6 Property Taxes		20,150,000			9,283,103		29,433,103
7 Development Fees			420,000	36,191,541		4,670,094	41,281,635
8 Charges for Services	51,600		2,500		47,650		101,750
9 Aid from Governmental Agencies		51,100			64,700		115,800
10 Investment Earnings	132,066	263,038	326,558	717,313	89,854	611,719	2,140,548
11 Other Revenue	134,950	3,097,123	1,102,500	3,085,790	110,910	25,000	7,556,273
12 <i>Subtotal (before transfers)</i>		<i>25,585,580</i>	<i>1,851,558</i>	<i>39,994,644</i>	<i>9,596,217</i>	<i>5,306,813</i>	<i>135,192,792</i>
13 Transfers			12,792,000	-			12,792,000
14 Total Revenue	52,857,980	25,585,580	14,643,558	39,994,644	9,596,217	5,306,813	147,984,792
15 Expenses							
16 Personnel	17,206,004		1,434,263	259,763	1,852,750	245,407	20,998,187
17 Professional Services	2,497,017				4,607,774	70,835	7,175,626
18 County Services	1,998,948						1,998,948
19 Water	5,804,364	27,628,997		18,465,669			51,899,030
20 Chemicals	2,668,761						2,668,761
21 Utilities	1,639,805						1,639,805
22 Communications	178,239				8,939		187,178
23 Repairs and Maintenance	2,126,681				3,990,783		6,117,464
24 Rental Services	125,355				21,000		146,355
25 Other General Office Services/ Supplies	481,796				420,681	7,957	910,434
26 Organizational Membership/ Participation	476,179				87,150		563,329
27 Training and Travel	144,569				16,561		161,130
28 Water Conservation	123,128						123,128
29 Capital Projects			7,302,173	16,466,456		4,280,071	28,048,700
30 Equipment, Furniture and Vehicles	53,389						53,389
31 Land and Facility Improvements					2,888,399		2,888,399
32 Debt Service	3,123,338			1,090,575			4,213,913
33 <i>Subtotal (before transfers)</i>	<i>38,647,573</i>	<i>27,628,997</i>	<i>8,736,436</i>	<i>36,282,463</i>	<i>13,894,037</i>	<i>4,604,270</i>	<i>129,793,776</i>
34 Transfers	12,995,328				14,145		13,009,473
35 Total Expenses	51,642,901	27,628,997	8,736,436	36,282,463	13,908,182	4,604,270	142,803,249
36 Estimated Ending Fund Balance June 30, 2020	14,414,349	22,864,411	38,562,913	75,443,444	4,673,409	61,874,472	217,832,998
37 Reserve Balances							
38 Operating	5,839,600	22,864,411			2,201,128		30,905,139
39 Rate Stabilization	3,901,181		6,300,000	2,300,000			12,501,181
40 Emergency	4,673,568						4,673,568
41 Drought Contingency							
42 Capital Projects			32,262,913	54,720,630	2,472,281	61,874,472	151,330,296
43 Sinking Funds - FY 2019/20 Contributions							
44 <i>Building Sinking Fund</i>							-
45 <i>Future Contractor's Share of the South Bay Aqueduct</i>				620,000			620,000
46 <i>South Bay Aqueduct Enlargement</i>				1,210,000			1,210,000
47 Sinking Funds Reserve Balance				18,422,814			18,422,814
48 Total Reserves	\$ 14,414,349	\$ 22,864,411	\$ 38,562,913	\$ 75,443,444	\$ 4,673,409	\$ 61,874,472	\$ 217,832,998
49 Change in Fund Balance (use of reserves)	1,215,079	(2,043,417)	5,907,122	3,712,181	(4,311,965)	702,543	5,181,543
50 Reserve Analysis							
51 Over/(Under) Minimum	(3,979,724)	8,506,785	19,788,913	61,431,444	-	n/a	
Note: Totals may not add due to rounding.							

ZONE 7

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO 18-49

INTRODUCED BY DIRECTOR QUIGLEY
SECONDED BY DIRECTOR STEVENS

BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby approve the following budget, including revenues, expenses and the use of fund balances (reserves) for Fiscal Years 2018-19 and 2019-20 (Exhibit A):

1. Water Enterprise Operations (Fund 100);
2. State Water Facilities (Fund 110);
3. Water Enterprise Renewal & Replacement, System-Wide Improvements (Fund 120);
4. Water Enterprise Capital Expansion (Fund 130);
5. Flood Protection Operations (Fund 200);
6. Flood Protection Drainage Development Impact Fee (DIF) Capital Projects (Fund 210); and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 does hereby request the Board of Supervisors of the Alameda County Flood Control and Water Conservation District to incorporate said budgets of Zone 7, where applicable; and

BE IT FURTHER RESOLVED that Section 1 (b) of Article XIII A of the California Constitution exempts ad valorem property tax levies to make payments upon indebtedness approved by voters prior to July 1, 1978, from the limitations set forth in Section 1 (a) of Article XIII A; and

BE IT FURTHER RESOLVED that the District's indebtedness from its State Water Supply Contract falls within such exemption; and

BE IT FURTHER RESOLVED, that consistent with the requirements of law and specifically within the limitations imposed by Article XIII A of the Constitution of the State of California there shall be levied a property tax within the District sufficient to raise the sum of \$20,000,000 for Fiscal Year 2018-19 and \$20,000,000 for Fiscal Year 2019-20 to meet that portion of the District's State Water Supply Contract obligation. All funds received by the District pursuant to the aforementioned property tax levy shall be placed in Fund 110, a separate fund identified for the indebtedness set forth above; and

to assure payment of sums due under the District's State Water Supply Contract for the State Water Facilities Fund to make payments; and

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby approve the personnel actions, if any, as contained in the Zone 7 Budget for Fiscal Years 2018-19 and 2019-20 and authorize the General Manager to implement such personnel actions; and

BE IT FURTHER RESOLVED that the General Manager is authorized and directed to adjust accounts as the General Manager may deem necessary to account for any changes in available fund balances, revenues or expenditures.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS FIGUERS, PALMER, QUIGLEY, STEVENS

NOES: NONE

ABSENT: DIRECTORS GRECI, RAMIREZ HOLMES

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District on

June 20, 2018

By 
President, Board of Directors

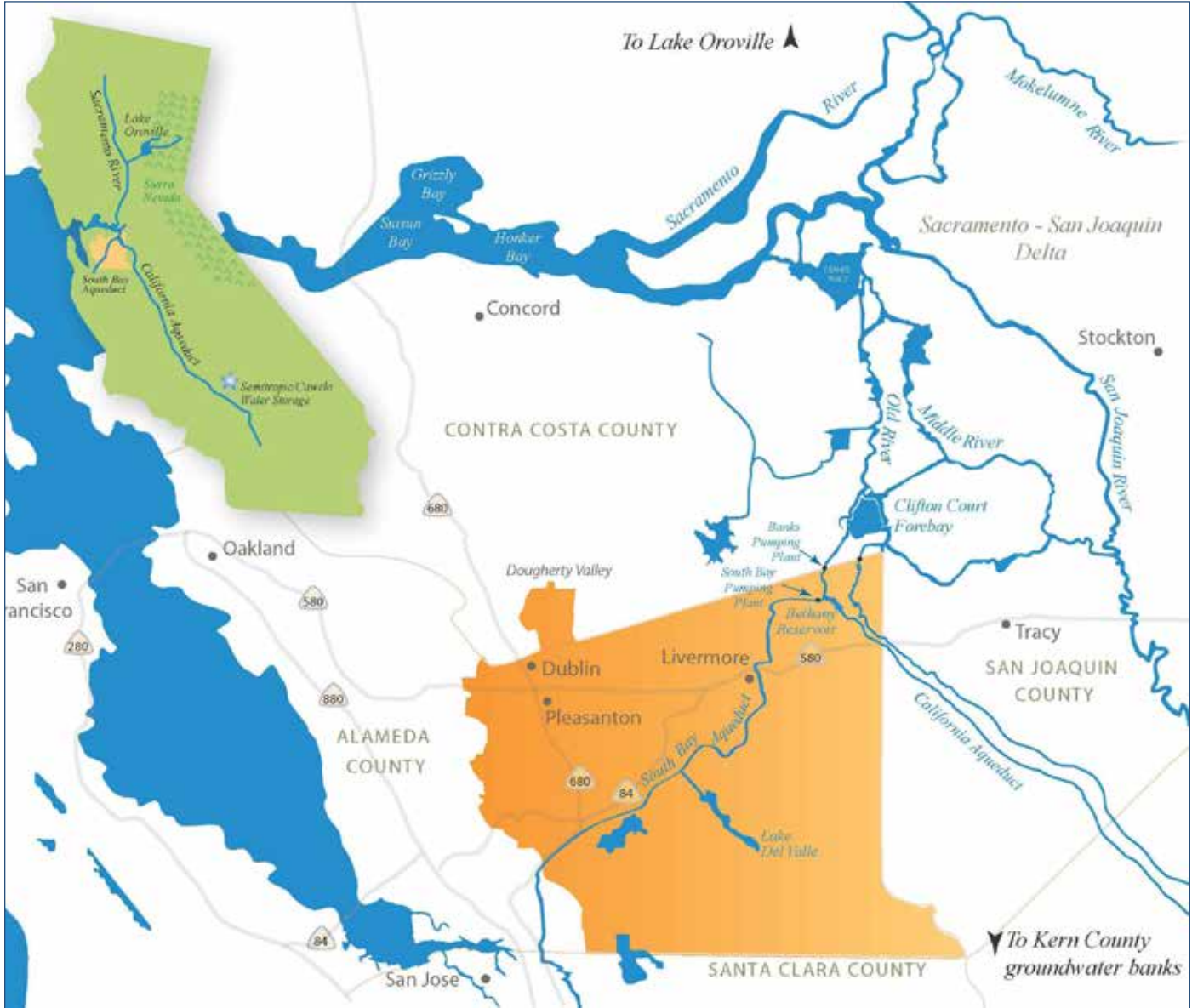


WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

AGENCY INTRODUCTION

Zone 7 Service Area

Zone 7 supplies treated drinking water to retailers serving nearly 250,000 people and businesses in Pleasanton, Livermore, Dublin and, through special agreement with the Dublin San Ramon Services District, the Dougherty Valley area in San Ramon. Zone 7 also supplies untreated irrigation water to local vineyards, farms and golf courses, and provides flood protection to all of eastern Alameda County.



Zone 7 Water Agency, June 20, 2018

BOARD OF DIRECTORS



John Greci, *President*

Board Member since 1994 –
Term Expires June 30, 2018



Jim McGrail, *Vice President*

(Deceased April 29, 2018)

Board Member since 2014 –
Term Expires June 30, 2018



Angela Ramirez Holmes

Board Member since 2012 –
Term Expires June 30, 2020



Sandy Figuers

Board Member 1988-2000; again since 2008 –
Term Expires June 30, 2020



Sarah Palmer

Board Member since 2006 –
Term Expires June 30, 2018



Bill Stevens

Board Member since 1998 –
Term Expires June 30, 2018



Dick Quigley

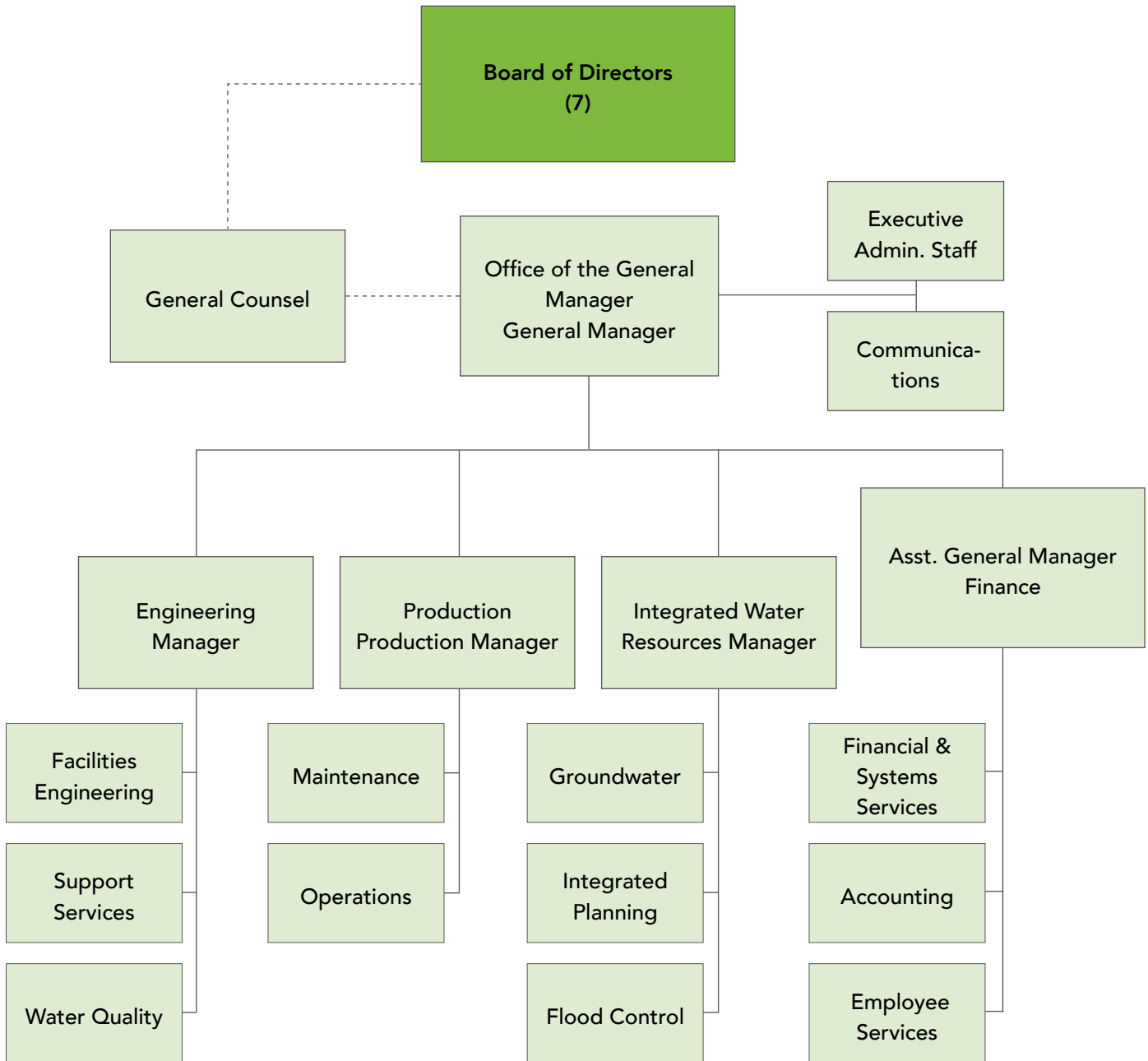
Board Member since 2004 –
Term Expires June 30, 2020

EXECUTIVE MANAGEMENT TEAM

Valerie Pryor
General Manager

Osborn Solitei,
Treasurer/Assistant General Manager,
Finance

Organization Chart



Agency Overview

Zone 7 Water Agency is a dependent special district established under the Alameda County Flood Control and Water Conservation District Act. The Act (Act 20 of the Uncodified Acts of the California Water Code) was passed by the state Legislature in 1949. Zone 7 was established by a vote of the residents of the Livermore-Amador Valley area in 1957, with its own independently-elected board to provide local control of integrated water resources. Zone 7 is responsible for providing wholesale treated (drinking) and untreated (agricultural irrigation) water, flood control and groundwater management throughout Eastern Alameda County.

SERVICE FUNCTIONS

Zone 7 provides wholesale potable (treated) water to four retail water suppliers, untreated water to Livermore-Amador Valley irrigation customers (primarily vineyards) and flood protection services to eastern Alameda County. The service territory includes 425 square miles of eastern Alameda County and, by special agreement with DSRSD, the Dougherty Valley portion of San Ramon, Zone 7 has broad powers to finance, construct and operate a system for the transportation, storage, treatment and distribution of water.



KEY BUSINESS RELATIONSHIPS

The Agency's major potable (treated) water customers are the cities of Pleasanton and Livermore; Dublin San Ramon Services District (DSRSD) (serving Dublin and the Dougherty Valley portion of San Ramon); and California Water Service Company-Livermore District (serving a portion of Livermore). These customers are collectively referred to as the retailers.

WATER SUPPLY

Zone 7's water supply has two major components: (1) imported water supplies available through the State Water Project (about 90%) and (2) local water rights. Imported water supplies consist of annually allocated State Water Project water. Local surface water runoff is captured in Lake Del Valle. In wet years, excess water is recharged in the local groundwater basin, "banked" in Kern County or carried over in State Water Project facilities. This stored water is then available in dry years.

Three of Zone 7's Retailers—Dublin San Ramon Services District (DSRSD), Livermore, and Pleasanton—also produce and/or distribute recycled water to their service areas. Two retailers, Pleasanton and Cal Water, pump groundwater directly in addition to the water supply provided by Zone 7. DSRSD has a contract with Zone 7 to pump groundwater on its behalf.

To optimize use of its local resources, Zone 7 sustainably manages the Livermore Valley Groundwater Basin. Lake Del Valle is owned and operated by the Department of Water Resources (DWR).

Two long-term water storage ("banking") agreements with agencies in Kern County (Semitropic Water Storage District and Cawelo Water District) provide additional flexibility in managing fluctuations in supplies.

To mitigate the risk associated with significant reliance on imported water supply, Zone 7 continues to develop local sources of water and to diversify its water supply portfolio. An update to the 2011 Water Supply Evaluation, the Water Supply Evaluation Update (WSE Update), was completed in early 2016, with the goal of documenting Zone 7's most current water supplies based on new information and experience gained over the current drought.

Purchased water from the State Water Project (SWP)—the nation’s largest publicly-built water storage and conveyance system serving over 25 million people throughout California—is by far Zone 7’s largest water source, providing about 90% of the treated water it supplies to its customers on an annual average basis.

DWR provides water supply from the SWP to twenty-nine SWP Contractors (Contractors), including Zone 7, in exchange for Contractors paying of all costs associated with providing that supply. DWR and each of the Contractors entered into substantially uniform long-term water supply contracts (Contracts) in the 1960s with initial 75-year terms, which begin to expire in 2035. Zone 7’s Contract was executed in 1961. While the Contracts provide for continued water service to the Contractors beyond the initial term, efforts are currently underway to extend the Contracts to improve financing conditions for the SWP.



South Bay Aqueduct

The majority of the capital costs associated with the development and maintenance of the SWP is financed using revenue bonds. These bonds have historically been sold with 30-year terms. It has become more challenging in recent years to affordably finance capital expenditures for the SWP because DWR bonds used to finance these expenditures are limited to terms that only extend to the year 2035, less than 20 years from now. To ensure continued affordability of debt service to Contractors, it is necessary to extend the term of the Contracts, which will allow DWR to continue to sell bonds with 30-year terms.



Lake Del Valle

Negotiations on extending the Contracts have taken place between DWR and the Contractors and were completely open to the public. General terms have been agreed upon and the final signing should occur in the near future. It is anticipated that the term of the SWP Contracts will be extended to December 31, 2085.

SWP water originates within the Feather River watershed, is captured in and released from Lake Oroville, and flows through the Sacramento-San Joaquin Delta (Delta) before it is conveyed by the South Bay Aqueduct (SBA) to Zone 7. Much of the SWP water continues on to southern California via the California Aqueduct.

The SBA also delivers water to two other water agencies: Santa Clara Valley Water District and Alameda County Water District (ACWD). Lake Del Valle is part of the SBA system and is used for storage of SWP water for all three contractors, as well as local runoff for Zone 7 and ACWD.

At Zone 7, SWP water is directly used to meet treated water demands from municipal and industrial customers—primarily wholesale and some direct retail—and untreated water demands from agricultural customers. It is also used to artificially recharge the local groundwater basin and fill non-local storage in Kern County.

History and Services

Since long before Zone 7 was created, the critical issues of water supply, water quality and flood protection have shaped the region's ability to prosper. Although the Valley was far less populated during the first half of the 20th Century than it is today, a declining groundwater table and periods of drought had local farmers, vintners, other businesses and residents alike worried about their livelihoods, according to reports published in 1948. And there was frequent flooding, particularly in northern Pleasanton, where Hacienda Business Park is now located.

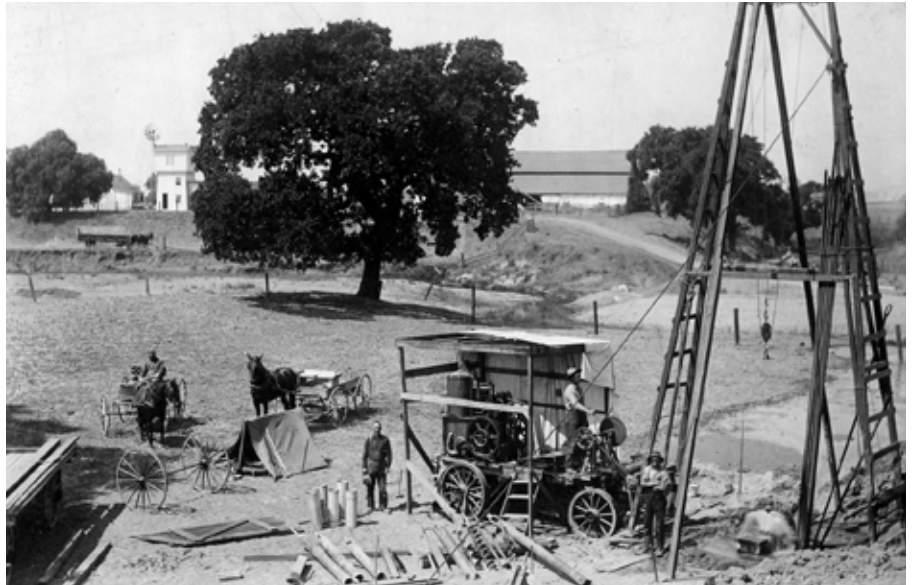
THE CREATION OF ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

The District was created in 1949 by the California State Legislature through passage of the Alameda County Flood Control and Water Conservation District Act (1949 ch 1275, Act 20 of the California Uncodified Water Code) (District Act) to provide control of flood and storm waters and to conserve water for

beneficial uses. The District is also vested with the power to store water in surface or underground reservoirs within or outside of the District for the common benefit of the District; conserve and reclaim water for present and future use within the District; appropriate and acquire water and water rights; and import water into the District.



The District is further authorized by the District Act to prevent interference with or diminution of, or to declare rights in the natural flow of any stream or surface or subterranean supply of waters used or useful for any purpose of the District and to prevent contamination, pollution or otherwise rendering unfit for beneficial use the surface or subsurface water used or useful in the District. The District is also authorized to levy replenishment assessments upon the production of groundwater from all water-producing facilities, whether public or private, within the District.



THE CREATION OF ZONE 7

The history of Zone 7 as a separate water resource management agency can be traced to the mid-1950s, when the Livermore-Amador Valley was primarily rural in character, with a population of approximately 30,000 people. The area faced a number of problems, including groundwater overdraft, poor drainage and flood hazards, and uncertainty over future water supplies. It was against this backdrop that the residents of the Livermore-Amador Valley voted, in 1957, to create Zone 7 Water Agency or Zone 7.



Zone 7 -- established in 1957 by local voters demanding local control over local water-resource planning and financing -- has taken the Valley a long way to resolving many of its most pressing water-supply, water-quality and flood-protection challenges. The seven-member Board of Directors has continually formulated, implemented and updated needed programs for flood protection and water-resource management, incorporating recreational and environmental benefits where feasible.

But many issues have persisted over the decades, and their implications on local land use, local control and local financing continue to surface. Indeed, they are alive and well today as Zone 7 works to improve water reliability and quality, along with flood protection, in the most economical and environmentally sound ways possible, and to accommodate new development being approved by Valley cities at no cost or harm to existing residents.

Zone 7 is governed by a locally-elected seven-member Board of Directors (Zone 7 Board). Each director is elected at-large by residents within the Alameda County portion of Zone 7's service area to a four-year term. The Zone 7 Board sets policy and provides direction to Zone 7 management and staff.

In 2003, the legislature passed Assembly Bill 1125 and gave the Zone 7 Board full authority and autonomy to govern matters solely affecting Zone 7 independently of the Alameda County Board of Supervisors. The Alameda County Board of Supervisors, acting as the District Board of Supervisors, governs the other nine zones of the District.

Zone 7's key water resource management responsibilities include:

- serve as the contractor with the Department of Water Resources (DWR) for the State Water Project,
- manage the local water right on Arroyo Valle,
- procure other water supplies as necessary to meet demands,
- provide wholesale treated water supply,
- provide untreated irrigation water for agriculture,
- sustainably manage the Livermore Valley Groundwater Basin,
- act as watershed steward,
- operate and maintain water treatment and transmission systems, and
- manage regional stormwater for public safety and protection of property.



HISTORY TIMELINE OF ZONE 7 AND THE STATE WATER PROJECT

EARLY 1900s

Groundwater pumping, including export to San Francisco. Lowers the Livermore-Amador Valley’s water table.

1949

State Legislature forms Alameda County Flood Control & Water Conservation District.

1957

Local voters approved creation of Zone 7 Water Agency to import State Water Project (SWP) water, stop overdraft of groundwater, and prevent flooding in eastern Alameda County.

1960

Statewide voters approve bonds for the SWP with 82% of voters within Zone 7 approving \$5.7M in bonds for water supply and flood control.

1961

Zone 7 enters historic contract with the Department of Water Resources for water from the State Water Project delivered via the South Bay Aqueduct (SBA).

1962

Delivery from the SWP begins. Zone 7 begins artificial recharge program using SWP allocation.

1962-1968

Zone 7 signs water supply contracts with the retailers.

1965

Zone 7 signs first contracts for untreated water deliveries from the SBA to the vineyards.

2003

California legislature passes Assembly Bill 1125 giving Zone 7 Board full authority and autonomy to govern matters solely affecting Zone 7 independently of the Alameda County Board of Supervisors.

2017

Zone 7 celebrates its 60th anniversary.



Mission, Vision, and Values of Zone 7 Water Agency

MISSION	The Agency is committed to providing a safe, reliable supply of high-quality water and effective flood-control programs and policies.
VISION	To provide top notch services, setting high standards for the supply of water and flood protection throughout the region.
VALUES	Guide the perspective and actions of the organization helping to define culture and beliefs.

MISSION STATEMENT

Zone 7 Water Agency is committed to providing a reliable supply of high-quality water and an effective flood-control system to the Livermore-Amador Valley. In fulfilling our present and future commitments to the community, we will develop and manage our water resources in a fiscally responsible, innovative, proactive, and environmentally sensitive way.

VISION STATEMENT

To be recognized as the platinum standard water and flood control district in which to live, work and do business by enhancing the quality of life, economic vitality and environmental health of the communities we serve.

VALUES

Open and Transparent

The Board's meetings and communications shall be open and public, except when the Brown Act authorizes otherwise.

Customer Service

Our commitment to the community requires prompt, respectful and courteous relations with our customers, both internal and external, as well as pursuing community partnerships and collaboration with other area public agencies when beneficial to the public.

Integrity

We practice the highest ethical standards and maintain open, honest communications at all levels of the organization at all times.

Fiscally Responsible

We will operate in a productive, cost effective, transparent and efficient manner to ensure sound financial stability.

Environmentally Sensitive

In carrying out our mission, we are dedicated to preserving and enhancing the environment while complying with regulations.

Innovative/Proactive

We encourage innovation, creativity and ingenuity, seeking constant improvement and keeping up with the latest economical technologies and management practices.

Safety

We are committed to public and employee safety to maintain a healthy work environment. We work safely and provide safe products and services.

Employee Development

We foster a respect for diversity, equality, a spirit of performance-based accountability and productivity along with personal and professional growth for all team members so as to achieve excellence through the collective energy that comes from a work environment where each employee can flourish and succeed to their highest potential.

Local Economy

The Agency's Administrative Office is located in the City of Livermore, in Alameda County. The City of Livermore itself was founded in 1869 and is one of California's oldest wine regions. Zone 7 currently serves a population within the Tri-Valley of over 250,000 people. Alameda County serves a population of over 1.6 million people who earn a median family income of \$89,200. The per capita income for Alameda County is \$65,045 and supports 770,400 wage and salary jobs. The average salary per worker in the county is \$82,424 as of 2016.²

The Tri-Valley has fully recovered from the general market crisis of FY 2008-09 with a consistent increase in the number of new home permits requested and anticipate a continued but mild growth rate throughout the FY 2018-19 and FY 2019-20 budget years. Drought conditions abated in 2016, but even with the increased rainfall through 2017, continued conservation practices (the new normal) impacted overall water use and agency water sales.

Demographic and Economic Statistics for Alameda County and Zone 7 Service Area (Fiscal Years 2005-06 through 2017-18)

Fiscal Year	Zone 7 Service Area (Acres)	Population Served in Agency's Service Area ¹	Population of Alameda County ¹	Total Personal Income, Alameda County (\$Billion) ²	Unemployment Rate, Alameda County ³	Consumer Price Index, Alameda County (% change) ⁴
2006	272,000	199,000	1,444,484	\$69.10	4.6	3.2
2007	272,000	204,000	1,455,715	71.9	4.8	3.4
2008	272,000	211,000	1,477,208	73.5	6.1	3
2009	272,000	216,000	1,498,539	70.2	11.1	0.8
2010	272,000	220,000	1,513,527	72.4	11.3	1.3
2011	272,000	224,000	1,531,324	78.2	10.8	2.7
2012	272,000	229,000	1,553,960	84.5	9.5	2.7
2013	272,000	233,000	1,578,891	87.4	7.4	2.2
2014	272,000	239,000	1,584,516	95.1	5.8	2.7
2015	272,000	245,000	1,601,820	101.4	5.2	3.2
2016	272,000	246,799	1,637,712	106.5	4.3	3.5
2017	272,000	255,023	1,643,219	113.6*	3.8	2.9
2018	272,000	261,621	1,656,996	120.3*	3.3	3.9

Source:

* Estimate/Forecast

¹ Population: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/documents/PriceandPopulation2018.pdf>

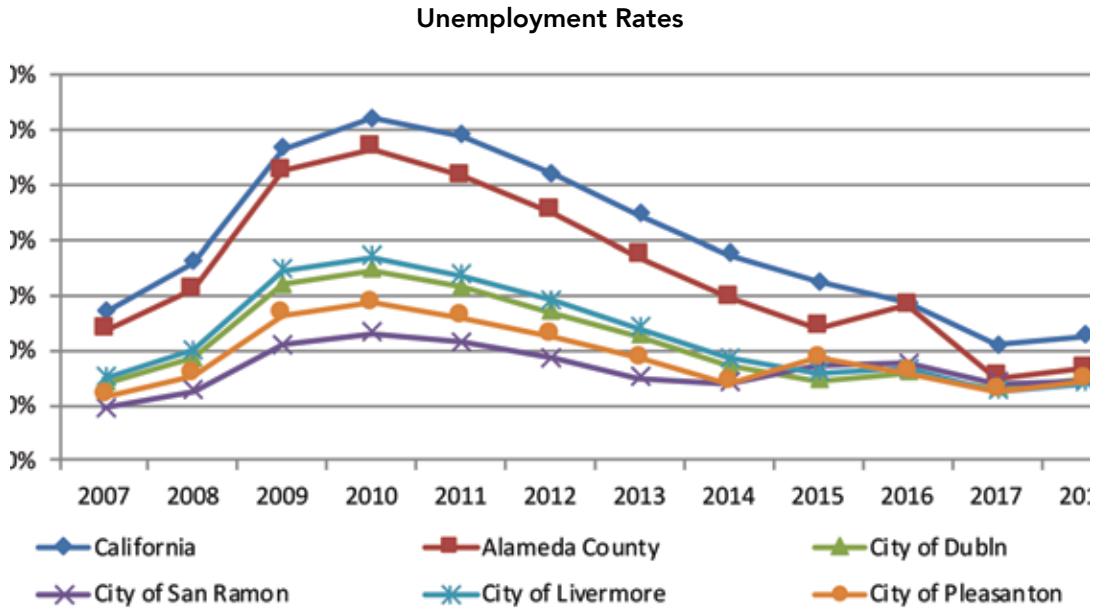
² Income: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2017/FullReport2017.pdf

³ Unemployment rates: <http://www.labormarketinfo.edd.ca.gov>

⁴ Consumer Price Index (CPI): http://www.bls.gov/regions/west/news-release/consumerpriceindex_sanfrancisco.htm

Unemployment Rates

Unemployment rates across the state of California peaked at a dramatic level of 12.4% in 2010 but have improved dramatically since then, and have settled in at 4.5% as of June 2018. The unemployment rate reported through June 2018 for all of Alameda County was also a vastly improved 3.3% versus the 5.6% reported in 2016.¹



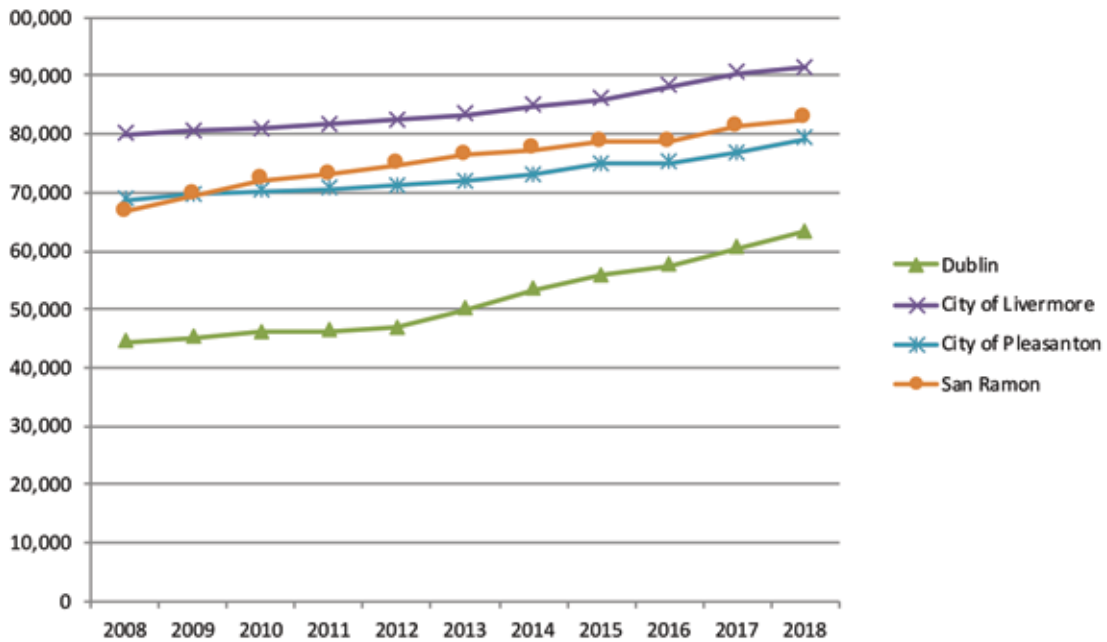
Source:

¹ Unemployment State rates: <https://data.edd.ca.gov/Labor-Force-and-Unemployment-Rates/Labor-Force-and-Unemployment-Rate-for-California-S/8z4h-2ak6>

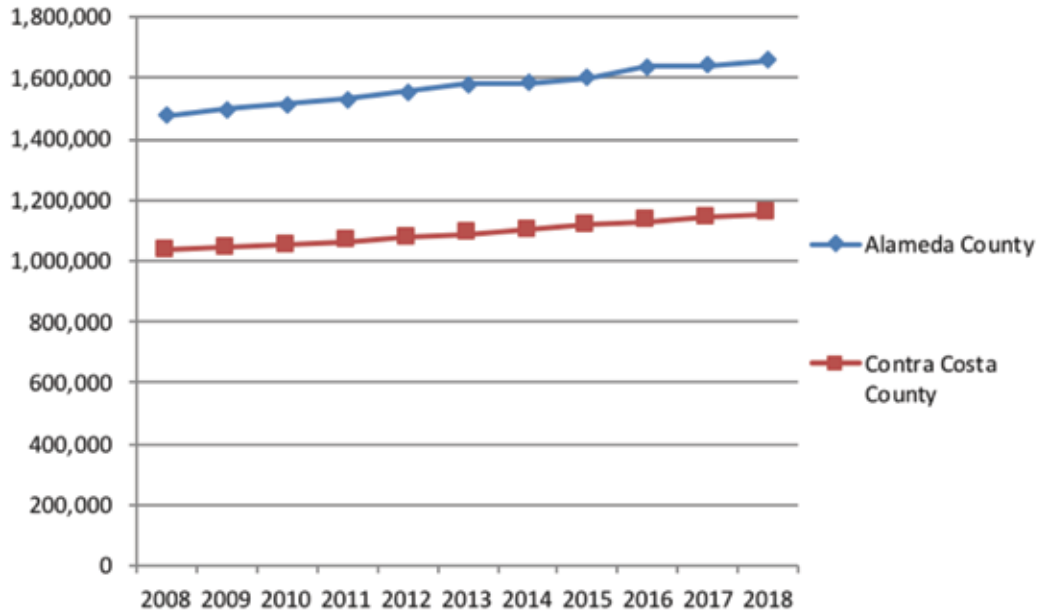
Population

The Tri-Valley area is located 39 miles east of San Francisco, California and 28 miles north of Silicon Valley. This area is a crossroads, not only literally (for commuters traveling from the Central Valley to Silicon Valley and other employment destinations) but also figuratively (where major employers include both vineyards and high-tech firms.) With a combined population now over 250,000 residents, the Dublin-Livermore-Pleasanton area is proving to be one of the fastest growing areas in the Bay Area. All cities within the Zone 7 service area continue to grow, with the cities of San Ramon and Livermore serving the largest overall populations. The cities of Dublin and Pleasanton have grown the most in the Tri-Valley over the period from 2017 to 2018 (4.6 and 3.2% respectively).¹ Dublin tied for fifth as the largest percentage change in population in California cities (2017-2018)¹. Livermore and San Ramon (1.1 and 1.6% respectively)¹ had smaller increases in.

Zone 7's Service Area Population



County Population

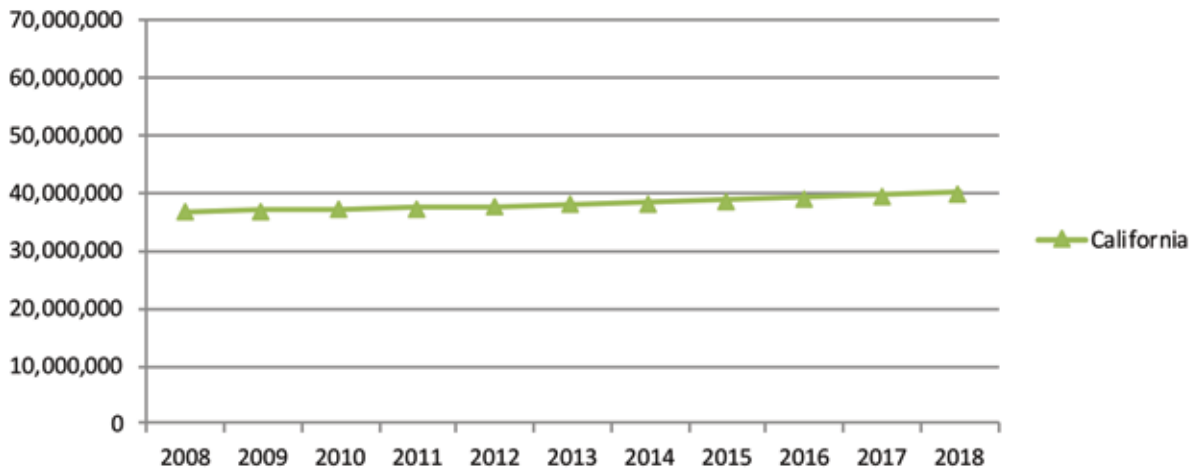


Source:

Population: Alameda County: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/documents/PriceandPopulation2018.pdf>

Population: Contra Costa County: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2017/ContraCosta.pdf

California Population



Source:

¹State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, updated in June 2018.

Challenges, Issues and Trends

Financial factors affecting the Agency include the increasing fiscal impacts from water conservation efforts which are now being considered the new normal, increased State Water Project charges, reverberations from the severe flooding that followed the historic drought, and the continuing need to fund infrastructure maintenance and improvements. Fortunately the economy continues

DROUGHT AND ITS AFTER EFFECTS

Calendar Year 2013 was the driest year in recorded history in many parts of California, including in the Livermore-Amador Valley.



On January 17, 2014, Governor Jerry Brown declared a State of Emergency in California due to drought conditions and asked all citizens to cut back water use by 20 percent. The Tri-Valley community responded with a 29% savings for calendar year 2014.

On April 1, 2015, Governor Brown issued an Executive Order requiring 25% water conservation measures statewide for residential use relative to 2013 use. This time Zone 7 customers responded with conservation levels of 40% for calendar year 2015 relative to their 2013 usage. Calendar year 2016 began with conservation levels hovering around 44%. Conservation of that magnitude significantly reduced volume-based revenues that had no fixed component; as a result Zone 7 had been depleting reserves to cover those revenue losses. By the end of Winter 2016, water supply conditions had vastly improved, leading Governor Brown issue Executive Order B-37-16 directing water suppliers to locally assess and set their water conservation targets.

Water year 2017 (October 1, 2016-September 30, 2017) became the wettest year on record in the Sacramento River watershed, the second wettest in the San Joaquin River watershed, and the fourth wettest year on record in the Zone 7 service area.

In May of 2018 Zone 7 received notice of a 35% allocation (based on Table A contract amounts) from the State Water Project. Given demand and supply conditions, Zone 7 can deliver 100% of requested water deliveries in 2018 and 2019 even if conditions turn critically dry in 2019. Zone 7 also expects to meet demands over 2020-2022, assuming average hydrologic conditions over that time.

FLOOD OF 2017

Flood control channels in Zone 7's service area experienced extensive



damage during the winter 2017 storms. As Zone 7's service area was included within a federal Major Disaster Declaration for these storms, repairs of the resulting damages could be eligible for reimbursement from the Federal Emergency Management Agency (FEMA). Zone 7 hired a consultant from PMA Consultants to manage the emergency funding application process, which has since been handed over to in-house staff. While the application process continues into 2018 through coordination with the California Office of Emergency

Services (Cal OES), Zone 7 expects reimbursement for costs related to emergency protective measures, debris removal, and repairs of a few bank slides. Any damages that occurred within channels that are part of the USACE PL 84-99 program were ineligible for FEMA funding.

During the winter of 2017, staff took various emergency measures to prevent the damages from escalating into a condition that would endanger life or property. This included removal of more than 2,000 cubic yards of silt and vegetative and mixed debris system-wide to prevent this debris from blocking the channels and maintenance roads. In addition, staff directed stabilization of bank damages including temporary repairs, shoring embankments, and covering damages with plastic to prevent further rain exposure. These activities were reimbursable under FEMA Category A (debris removal) and Category B (emergency measures), and Zone 7 received a sum of \$103,637 from FEMA and Cal OES.

The record rainfall in February 2017 also resulted in significant erosion and damage to the Lake Oroville main and emergency spillways. On April 6, 2017 DWR released the Oroville Spillway Recovery plan describing the approach to repair and restore the spillways to original design capacity by November 1, 2017. On April 17, 2017, DWR awarded Kiewit Infrastructure West

Co. the contract to reconstruct both the main and emergency spillways for \$275 million. As a State Water Project facility, repairs to the Lake Oroville spillways will be paid for by State Water Project contractors per the long-term water supply contracts for any costs not recoverable from federal grants or other sources. The Agency's share is estimated to be \$5.5 million or 2%, which will be amortized through 2035. The Agency has not been billed for any of the repairs as of February 28, 2018. On November 1, 2017, DWR announced that it has met its goal of repairing and reconstructing the main spillway to handle flows of 100,000 cubic-feet per second this winter.

STATE WATER PROJECT CHARGES

The State Water Project charges are by far the largest component of the Agency's budget spanning several funds (Fund 100, 110, 130, & 310). The charges are increasing due to both capital debt service payments and operating costs.

On December 21, 2016, the Board adopted Resolution No. 16-191 to negotiate and execute the Phase 1 Reservoir Project Agreement for funding in the amount of \$850,000 from Fund 310. On October 26, 2016, Zone 7 accepted the Sites Project Authority's counter-offer to participate in the Phase 1 Reservoir Project Committee at 11,380 AF Class 1 water and 8,620 AF of Class 2 water. On September 21, 2016, the Board also approved contributions of \$100,000 and \$75,000 from Fund 310 for participation in Los Vaqueros Reservoir Expansion Project planning and Lake Del Valle Expansion study.

The Agency purchases water from

the State Water Project, which is the nation's largest publicly-built water storage and conveyance system serving over 25 million people throughout California, is by far the Agency's largest water source, providing over 80% of the treated water supplied to its customers on an annual average basis.

In practice, the actual amount of State Water Project water available to the Agency under the Table A allocation process varies from year to year due to hydrologic conditions, water demands of other contractors, existing State Water Project stored water, State Water Project facility capacity, and environmental/regulatory requirements.

WATER CONSERVATION ACT OF 2009

The Water Conservation Act of 2009 (SBX7-7) sets an overall goal of reducing per capita urban water use by 20% by the end of 2020. Water demands on a per capita basis continue to decrease while fixed costs remain high.

Hydrologic regions of California Water providers were first required to submit assessments of their baseline urban water use, which was measured in gallons per capita per day (GPCD), to the California Department of Water Resources (DWR). From this it was possible to calculate the reductions in use that would be required for each watershed, taking account of different factors such as population, hydrology and land use, in order to meet the required 20% reduction.

All providers were then required to submit conservation plans to DWR by July 1, 2011 outlining exactly how the provider will ensure the

conservation targets are met. To aid the suppliers the DWR formulated several water conservation methods/measurement criteria that suppliers could adopt, allowing them to choose the one that was best suited to their specific users.

CALIFORNIA WATERFIX



On September 20, 2017, the Agency Board adopted a resolution to support California WaterFix and authorized the Agency to contribute up to \$250,000 for the next phase in 2018. The resolution also allowed for negotiation of participation in the Finance Joint Powers Authority (the "Finance JPA") and the Delta Conveyance and Construction Joint Powers Authority ("DCA") which will implement California WaterFix and provide oversight and fiscal control of the public's investment. State Water Project and Central Valley Project contractors who choose to participate in California WaterFix are expected to contribute interim funding in order to move the project forward until the Finance JPA issues the bonds needed to fund the project.

California WaterFix costs will be split among the State Water Project and Central Valley Project contractors that receive the benefits from the project. An analysis of the cost impacts to the Agency suggests that, if costs are placed entirely on water rates, treated water rates would increase over the next ten to fifteen years by a total of about 20 percent to pay for the Agency's share of California WaterFix. Additionally, those alternatives could not address the continuing decline in reliability of the Agency's primary water source or the susceptibility of the aging

State Water Project infrastructure to failures resulting from earthquakes, climate change and continuing subsidence in the Delta.

California WaterFix (formerly the Bay Delta Conservation Plan as described below), would provide a significant upgrade to the aging through-Delta conveyance currently used by the Agency to import roughly 80 percent of the Livermore Valley's supplies. The 50-year-old system is currently vulnerable to disruptions due to levee failure and salinity intrusion from seismic events, climate change or even large storms, which would immediately impact the Agency's operations. Pumping capacity of the existing system has diminished significantly in the last 30 years due to regulatory restrictions and increasing maintenance-related outages/breakdowns in the 50-year-old infrastructure. Supply reliability (primarily related to endangered species) is expected to decrease further due to changes in snowpack and frequency and intensity of precipitation related to climate change. While the Agency continues to pursue alternative water supplies such as potable reuse and desalination, studies indicate that reliance on the State Water Project could only be reduced to about 70 percent of the Agency's supplies in the future; the vast majority of the water for the Agency's service area will continue to be imported water conveyed through the Delta and delivered via the State Water Project facilities.

Potential Alternative Supplies

SITES RESERVOIR

In 2016, the Agency identified the proposed Sites Reservoir Project as a possible source of additional water supply and storage. As envisioned, the Sites Reservoir is a new off-stream reservoir to be located 75 miles northwest of Sacramento, in the Antelope Valley of the Coast Range, on rangeland approximately 10 miles west of Maxwell in Colusa County. Sites Reservoir is overseen by the Sites Joint Powers Authority (the "Sites JPA"). The Sites Reservoir is envisioned to provide 1.3-1.8 million AF of new storage capacity, and 500 thousand acre-feet (TAF) per year of average water supply yield. The project yield and associated costs are planned to be shared between the State of California (with grant funding through the Proposition 1 Water Storage Investment Program ("WSIP")) and water agencies.



The current project schedule assumes five phases—from planning through transfer to the ultimate operation authority—with estimated in-service date around 2030 under optimal conditions. Phase 1, to be completed by mid-2018, was focused on preparing a proposal for WSIP funding. Phase 2 (2018-2022) will advance the planning, permitting, and design stages.

On December 21, 2016, the Board authorized the General Manager to negotiate and execute the Phase 1 Reservoir Project Agreement for funding, based on the request for 20,000 AF previously approved by the Agency Board on July 20, 2016, with a total not-to-exceed cost of \$850,000 including contingency. Based on current participation, the

Agency's Class 1 amount is 14,269 AF with another 5,731 AF of Class 2 water. Class 1 water represents 50% of the reservoir's expected yield (250,000 AF out of 500,000 AF total yield annually) and is allocated to participating water agencies while Class 2 water represents the remaining expected yield, which is currently reserved for "public benefit" environmental uses, but may become available at a later time depending on the state's level of participation. The Agency executed the agreement on February 1, 2017, with a weighted vote of about 5% in the Reservoir Project Committee, which will be undertaking specific work activities for the development of the Sites Reservoir Project under the Sites JPA.

The Sites Reservoir unit cost range is currently estimated up to around \$1,250/AF of delivered water south of the Delta; the financing (including potential State funding) of the overall project is still under discussion so it is unknown at this time what the payment structure for the Agency will look like. The Agency's ultimate share is also still to be determined. At 20,000 AF, the Agency would represent 8% of Site Reservoir's projected average yield to water agencies (250,000 AF/yr), or 4% of the total projected yield (500,000 AF/yr). The project is currently estimated to cost \$5.2 billion, with a portion of that potentially to be funded by the State of California. In the next few months, the Agency will be evaluating continued participation in the Sites Reservoir Project as it moves into Phase 2. The potential benefits and costs of this project will be weighed against those of other options that the Agency is pursuing.

LOS VAQUEROS RESERVOIR EXPANSION

Los Vaqueros Reservoir, Contra Costa Water District's ("CCWD") reservoir in northeastern Contra Costa County, has been identified by the Agency as a facility that could reduce risk of water supply shortage to the Agency by providing State Water Project storage upstream of the Agency and facilitating a regional desalination project. Los Vaqueros Reservoir currently has a capacity of 160,000 AF following its expansion from 100,000 AF in 2012. CCWD is planning for possible further expansion of the reservoir to 275,000 AF and possible construction of the Transfer-Bethany Pipeline, which would connect the reservoir to the South Bay Aqueduct system. The Agency Board approved participation in Los Vaqueros Reservoir Expansion Project Planning as a "Local Agency" partner on September 21, 2016 with a \$100,000 contribution towards preparation of required environmental documents using consulting services managed by CCWD.

The potential formation of a joint powers authority for project implementation and operation is currently being evaluated by a consultant. A joint powers authority would provide a more formal 'seat-at-the-table' for Local Agencies. The Agency will be evaluating continued participation in the Los Vaqueros Reservoir Expansion Project throughout 2018.

POTABLE REUSE



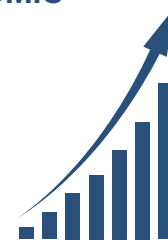
Potable reuse is a water supply option being considered by the Agency, with wastewater potentially derived from the City of Livermore and/or Dublin San Ramon Services District ("DSRSD"). The Joint Tri-Valley Potable Reuse Feasibility Study was initiated in October 2016. The study is a partnership among the Agency and the Agency Retailers. Its primary goals are to evaluate the feasibility of potable reuse for the Livermore Valley; to identify the most promising options based on technical, financial, and regulatory considerations; and, assuming that potable reuse is found to be feasible, to recommend next steps for the agencies. The preliminary findings indicate that potable reuse is feasible, with potential yield as high as 10,000 acre-feet per year and costs ranging from \$2,200 to \$2,500 per acre-foot based on the range of options evaluated; the associated capital costs range from \$112 million to \$222 million. If a project is pursued, it could conceivably be constructed within eight to ten years.

CAPITAL IMPROVEMENT PLAN (CIP):

The CIP plans for a total expenditure of \$718 million in Expansion projects starting in Fiscal Year 2018-19 through Fiscal Year 2027-28. Of this amount, non-discretionary obligations for the ten-year CIP total approximately \$200 million. Non-discretionary obligations are contractually-required payments to other agencies, such as DWR, for debt incurred on the Agency's behalf. A large percentage of the non-discretionary expenses are for DWR's capitalization of the South Bay Aqueduct Improvement and Enlargement Project with annual payments of about \$15 million for the expansion portion of the project.

STEADY ECONOMIC GROWTH

New development within the service area has been picking up, There is also a moderate increase in property values that has resulted in stabilization of the 2015 thru 2017 tax assessment rolls. After a downturn in growth due to the recession starting in 2008, the Agency's service area has experienced stronger growth in more recent years and is expected to continue growing for at least the next 15 years. Using 2015 as a base year, the Agency's service area population is projected to grow from 244,000 to 301,000 people by buildout in 2040, which is a 23 percent increase. This overall growth is providing increases in new water rate payers, property tax income and connection fee revenue.



Strategic Planning

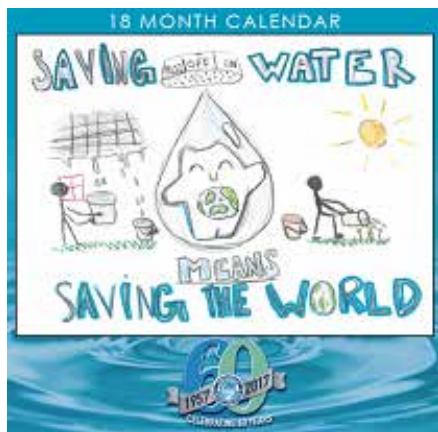
As part of Zone 7's strategic planning five general strategic planning priorities were identified. These priorities were developed to ensure all Zone 7 efforts are focused on fulfilling the mission of the agency, and to further ensure the most immediate needs are addressed in an efficient and cost-effective manner. The five general priorities (listed below) include a number of specific strategic planning sub-priorities and form the basis for master plans, budgets, capital plans and other resource allocation planning.

1. Provide customers with a reliable, cost-effective and safe water supply.
2. Provide Eastern Alameda County with an effective system of flood protection.
3. Provide the Agency with effective organization, administration and governance.
4. Operate the Agency in a fiscally-responsible manner.
5. Increase public understanding of the Agency and its functions.

Board members review the priorities and the respective sub-priorities on an annual basis to provide ongoing, updated direction to staff.

Major Accomplishments (FY 2017-18)

ZONE 7 CELEBRATED ITS 60TH ANNIVERSARY:



To commemorate our 60th anniversary, while also promoting water awareness, Zone 7 Water Agency created this 18-month calendar. Zone 7 Water Agency, in partnership with local water retailers, invited 4th-grade students within our service area to share their artistic talents by creating a poster that illustrates the importance of water conservation, flood protection, and watershed management. Winners of the poster contest are featured in the calendar.

LOCAL HAZARD MITIGATION

PLAN (LHMP): Zone 7 completed the Local Hazard Mitigation Plan (LHMP) in 2017. The federal Disaster Mitigation Act of 2000 requires cities, counties, and special districts to have a LHMP to minimize damage and quicken recovery from disasters such as earthquakes and floods, and to be eligible for federal hazard mitigation funds. The update included a public survey to get public input on the highest priority issues and areas of greatest concern and a review of impacts from natural and manmade disasters to see where infrastructure and services can be strengthened or improved to reduce potential effects and thereby reduce costs after disasters.

FLOOD PROTECTION WORK:

The Agency addressed the 208 bank slides which occurred over the period January thru April of 2017. The storms that caused the slides resulted in a State of Emergency being declared by the State Governor and the Zone 7 Board. Total repair costs are estimated at \$44M.

STREAM MANAGEMENT MASTER PLAN UPDATE (SMMP):

Zone 7 completed an update of the SMMP in 2017. The update addresses the challenges of balancing flood protection with water supply, water quality, habitat and environment, and recreation and trails objectives for the Livermore-Amador Valley. The update includes new modeling to help identify priority regional flood protection projects to reduce risk for flood-prone areas, in the short term, while still implementing key ideas of the original SMMP. The SMMP is a multi-benefit program developed to fulfill Zone 7's stream management goals and objectives. The plan provides, while providing opportunities for other local and regional agencies and stakeholders to identify compatible General and/or Master Plan features of their respective groups to be considered in future SMMP projects.

WATERFIX LEADERSHIP:

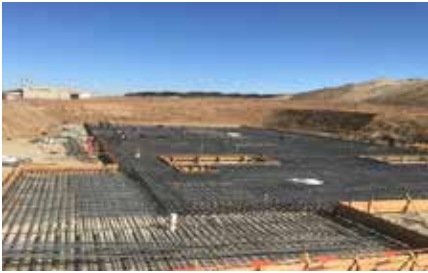


Zone 7 remained a leader in developing the California WaterFix. Staff served on the Board of the State and Federal Contractors Water Agency, the State Water Project Contractors Authority and SWPCA's Delta Specific Project Committee. They work continuously with state and federal agencies to refine the "preferred option".

GROUNDWATER MANAGEMENT:

In 2014, the State of California's Sustainable Groundwater Management Act (known as SGMA or "Sigma"), recognized Zone 7's sustainable groundwater management program by naming Zone 7 the exclusive agency to continue this role in its service area. At the end of 2016, Zone 7 officially accepted the new role and filed an Alternative Sustainable Groundwater Management Plan. Early in 2017, Zone 7's board of directors adopted a Sustainable Groundwater Management Ordinance to clarify the related responsibilities and Zone 7 will continue groundwater management for the entire portion of the Livermore Valley groundwater basin that is within the Agency's service area as well as a small portion that lies within Contra Costa County.

SEVERAL MULTI-YEAR CAPITAL PROJECTS INITIATED:



Construction began on the Del Valle Water Treatment Plant Ozonation Project April 2018, and the \$49M project is scheduled for completion in the spring of 2020. The project includes the modification of existing facilities and construction of new facilities including an ozone generation building, contactor structure, existing filters modifications, chemical feed facilities, Power and Water Resource Pooling Authority (PWRPA) electrical facilities and a plant utility water pump station. This project will improve water quality, enhance the water treatment process, and increase production reliability.

Construction is set to begin on the Patterson Pass Water Treatment Plant upgrades and ozonation project in January 2019 with completion in early 2022. The \$95M project will include the modification of existing facilities and construction of new facilities including an ozone generation building, contactor structures, filters, chemical storage and feed facilities, a 5 million gallon (MG) treated water storage tank, and a pump station. The completion of this project will improve treated water quality, replace existing facilities reaching the end of useful life, increase plant capacity to 24 MGD, and increase treated water storage capacity.

ASSET MANAGEMENT

PROGRAM (AMP): In 2017, the Agency updated its' Asset Management Plan Funding Update (2017 Update) providing a summary of the findings and recommendations of the work done to update the long-term funding forecast and related renewal funding needs for Zone 7 Water Agency's (Zone 7) Asset Management Program (AMP).

As part of the current update, the long-term funding forecast has been updated to reflect Capital Improvement Projects (CIP) that were completed and assets that were renewed since 2011, incorporate new and future projects, and the long-term renewal of assets. All the assumptions used during the 2011 Update for the near-term and long-term asset renewals and funding forecast were utilized for the current update as well.

The primary objectives of the 2017 Update included forecasting long-term funding requirements based on anticipated renewal/replacement CIP projects, long-term renewal of existing assets through fiscal year (FY) 2057/58, and other system-wide improvements (SWI) projects; Forecast near-term renewal needs to aid Zone 7 in identifying assets that need condition assessment to better define future CIP projects; Identify funding gaps using current funding rates; Provide a 10-year plan to incorporate into the Zone 7 FY 2018/19 CIP and; With the addition of new facilities, and as the water system infrastructure ages with time, the annual funding of the Renewal/Replacement and System-wide Improvement Fund from the Water Enterprise Fund is increasing.

BUILDING PURCHASE:

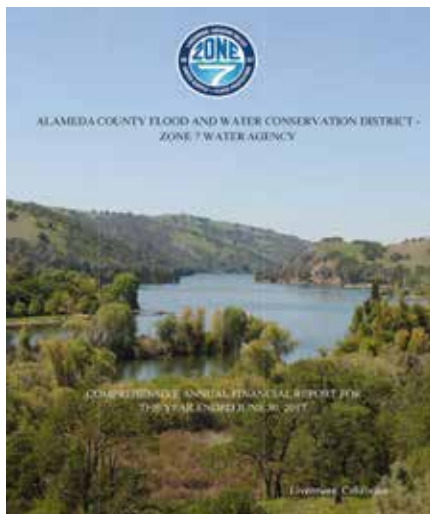
The Agency purchased the Administrative Office building to save over \$1 million per year in lease payments and over \$3 million in total purchase cost by purchasing the building in 2017 instead of waiting till the end of lease agreement of 2020.

WATER RATES: In 2017, the Agency implemented a fixed charge for each Agency Retailer and other customers to recover 35% of the Agency's revenue requirements. The fixed charge provides increased revenue stability for the Agency and increase rate stability for its customers. In order to equitably recover the fixed charge, the fixed charge for each Agency Retailer and other customer is allocated proportionally to their average usage based on the previous two years. The Agency collects the fixed charge evenly over the course of 12 months from each Retailer and Direct Customer in order to ensure financial stability.

With the establishment of a fixed charge in 2017, the volume-based rate was adjusted to recover nearly 100% of revenue from volume-based rates to 65% cost recovery. The volume-based rate is a uniform rate charge to each Agency Retailer and other customers per each unit of water delivered.

WATER CONNECTION FEES: In 2017, the Agency Board adopted the Fiscal Year 2016-17 Municipal and Industrial Connection Fee Program Update. The update undertook a comprehensive re-evaluation of projected demands, and new connections in the Agency's service area, and the necessary Water System expansion projects to meet the needs of future customers. The study resulted in a 7.3% increase in the Alameda County Connection Fee and an 11.3% increase in the Dougherty Valley Connection Fee, which became effective May 1, 2017. The study recommended annual inflationary adjustments to the fee to keep pace with inflation.

COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR):



For the third time in the agency's history, staff created a CAFR, submitted an application and received a Certificate of Achievement for Excellence in Financial Reporting, this time for Year Ended June 30, 2017.

ISSUANCE OF DEBT: On April 11, 2018 the Agency closed on a bond sale to finance the construction of new ozonation facilities at DVWTP and PPWTP. With an AA+ from Standard & Poor's and AA from Fitch credit ratings, the Agency sold all of its Livermore Valley Water Financing Authority water revenue bonds with an interest rate of 3.54%. Annual debt service payments are around \$3.1M annually through 2049.

The Zone 7 Board established a Debt Policy in June 2017 to formally establish parameters for issuing debt and managing a debt portfolio, which encompass the Agency's specific capital improvement needs, its ability to repay financial obligations, and the existing legal, economic, financial and debt market conditions. The policies are utilized to ensure adequate financial resources are available to support the Agency's long-term capital needs.

The Livermore Valley Water Financing Authority (the "Authority") under a resolution adopted by the Board of Directors of the Authority on March 21, 2018, and a Trust Agreement, dated as of April 1, 2018 by and between the Authority and U.S. Bank National Association, as trustee for the Bonds, issued Bonds by the Authority, in an aggregate principal amount not to exceed \$75,000,000, to finance the 2018 Water Project and the Cawelo Prepayment. The Bonds are being issued to provide funds to pay the cost of the 2018 Water Project, which generally consists of a water treatment plant and related facilities; prepay the Agency's obligations in connection with the Cawelo Water District Certificates of Participation (Water Bank Project) Series 2006 (the "2006 Certificates"), and pay the costs of issuing the Bonds.

BUDGET BOOK PRESENTATION AWARDS: For the fourth consecutive year, the Agency received the Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award for the Fiscal Year ended 2017. Additionally, Zone 7 received the "Excellence Award in Operating Budget" for the third time from the California Society of Municipal Finance Officers (CSMFO) for its FY 2016-17 Budget Book.

TRANSPARENCY CERTIFICATE OF EXCELLENCE: In 2017 the Agency received the District Transparency Certificate of Excellence from the Special District Leadership Foundation (SDLF) in recognition of Zone 7's efforts to promote transparency and good governance.

PUBLIC SURVEY RESULTS: Zone 7 conducted a survey in early 2017 with the survey results showing that voters are generally familiar with Zone 7 and the services it offers. The results also showed that residents strongly approve of Zone 7's water distribution services, that 85 percent of residents are satisfied with the reliability of their water supplies, and that the majority of voters are satisfied with the quality and taste of their drinking water.

VIDEO RECORDING OF BOARD MEETINGS: In late 2015, the Board of Directors approved video recording/televising monthly board meetings on Community television and posting archived video links to the Agency's website. Videotaping and subsequent replay on TV30 began in 2016. <http://www.tri-valleytv.org/Zone7.html>



WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

FINANCIAL OVERVIEW

Agency Fiscal Overview

On an annual basis Zone 7 Water Agency comprehensively reviews its full financial standing with the express purpose of determining and proposing a comprehensive management and financial working budget plan document from which to base the subsequent fiscal year's operations. In the past, the resulting board-approved budget would sunset after a single year; however, the last Operating and Capital Budgets transitioned to a two-year or biennial budget and continue forward with Fiscal Years (FY) 2018-19 and 2019-20. This budget document includes a brief explanation of the Agency's budget process, a breakdown of the budget by Major Funding Area, Section, Program and the Chart of Accounts.

The Agency's Board adopted operating and capital budget is \$199.8M for FY 2018-19, and \$142.8M for FY 2019-20, this budget has been thoroughly reviewed by management, staff and the Board of Directors.

The Agency's budget was created in adherence to the Agency's Mission, Vision and Value Statements in order to implement Board-adopted policies, the Strategic Planning Priorities and the General Manager's

FISCAL YEAR

Zone 7 Water Agency operates on a fiscal year which runs from July 1 through June 30. In the document, if a year is used, it means the end of the fiscal year. For example, 2019 is the fiscal year ending June 30, 2019. "FYE" for fiscal year ending is also used.

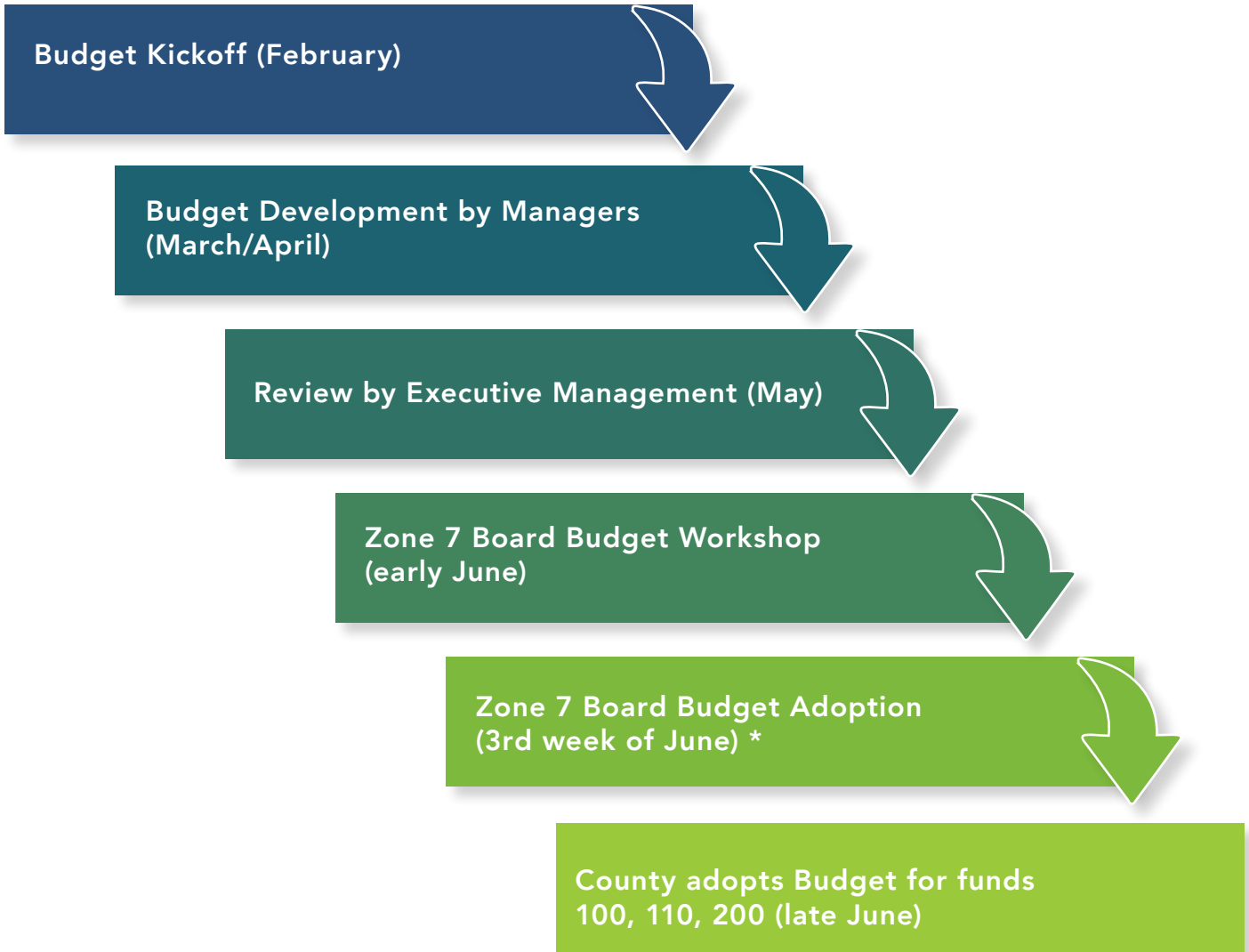
FISCAL MANAGEMENT

The Agency's Board of Directors adopts operating and capital budgets prior to the new fiscal year. The budget authorizes and provides the basis for reporting and control of financial operations and accountability for the District's enterprise (water) and governmental (flood) functions. The Agency adopts a balanced budget (estimated expenses equal to estimated revenues, including planned use of available reserves).

BUDGET PROCESS/CALENDAR

The budget process begins at the Section level. Supervisors prepare their The budget process begins at the Section level. Supervisors prepare their respective budgets and submit them to the Section Managers, which are then provided to the governing Assistant General Manager and Executive Staff for analysis and consideration. The Assistant General Manager and Executive Staff then propose their respective draft budgets to the General Manager, who considers Agency priorities, overall impact and ultimate direction regarding each of the Agency's funds to develop the full budget draft. The vetted budget draft is then presented to the full Board of Directors for review and adoption prior to June 30. This two-year budget was adopted by the Zone 7 Board on June 20, 2018. At the end of June 2018 the Alameda County Board of Supervisors adopted the Agency's budget for funds 100, 110, and 200. The Board of Directors meetings and any standing Board Committee meetings are posted in advance in accordance with the Brown Act and to facilitate full public participation. The final FY 2018-19 and FY 2019-20 budgets were posted and will remain on the Agency's website for a period of time determined by the General Manager.

BUDGET PROCESS FLOW



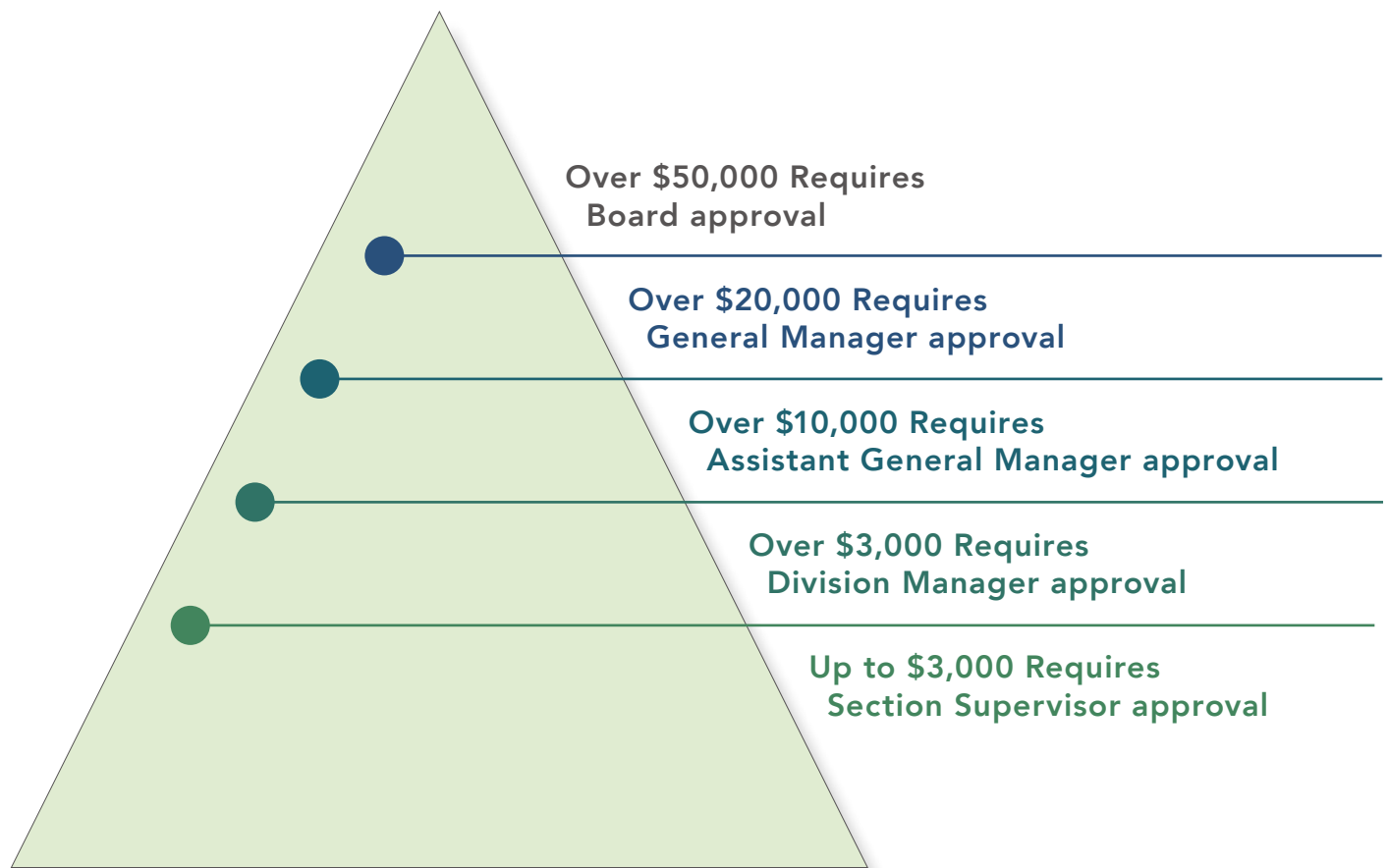
**Even-numbered years*

Budgetary Control

The budget is a management tool intended to aid in the planning efforts of the Agency and to serve to guide expenditures to ensure the fiscal health and financial future of the agency. To aid in the management of the budget, certain “rules” or “controls” have been established that require appropriate levels of approval on the expenditure of Agency funds as well as reporting requirements of financial information to the Board and the public. All budget transfers are documented and tracked in the Agency’s computerized financial system.

Once the budget is approved by the Board, staff implements and manages operations in accordance with the approved budget. Each Section Supervisor is accountable for their respective budget performance which is also monitored by finance staff and executive management. Quarterly reports produced by finance staff are provided to the Board of Directors updating them on the agency’s expenditure of public funds.

In addition to reporting the status of expenditures as compared to the budget each quarter, spending limits have been established in the Agency Purchasing Policy as follows:



Once the budget is adopted, managers are expected to stay within the constraints of the approved section budgets. Line items in each section budget can be modified during the year; however the total departmental budget cannot be exceeded without the Board’s approval.

In addition, the budget provides the annual authorization for positions, employee pay and benefits.

Capital Financing and Debt

The Agency has historically relied on Water System and Flood Protection Reserves to fund capital projects on a pay-as-you-go basis. This approach can work well during periods in which net revenues are strong and capital funding needs are modest. The recent drought related drop in reserve levels, combined with an increased need for capital projects has created the need for external funding. The Agency, under the direction of the Board of Directors will retain full flexibility in determining the best funding approach on a case-by-case basis.

On June 21, 2017, the Zone 7 Board adopted a Capital Financing and Debt Policy (Appendix D). This Debt Policy formally establishes parameters for issuing debt and managing a debt portfolio, which encompasses the Agency’s specific capital improvement needs, its ability to repay financial obligations, and the existing legal, economic, financial and debt market conditions. The policies outlined in the Debt Policy are not goals or a list of rules to be applied toward the Agency’s debt issuance; rather, these policies should be utilized as tools to ensure that adequate financial resources are available to support the Agency’s long-term capital needs.

Livermore Valley Water Financing Authority Water Revenue Bonds, 2018 Series A:

On March 28, 2018 the Agency completed the sale of bonds to million bond proceeds will be used for ozone projects at both water treatment plants of \$57 million and refunding of the Cawelo Water District capital payment for \$14.1M. The Agency sold all of its \$64,010,000 Livermore Valley Water Financing Authority water revenue bonds. The 2018 Series A bonds generated \$71,398,059 of proceeds with a true interest rate of 3.54%.

Credit Ratings

As part of the 2018 Series A Bond issuance, the Agency secured credit ratings from Standard and Poor’s and Fitch. The ratings are shown in the table below:

Water System Credit Ratings		
Type	Standard and Poor’s	Fitch
2018 Series A	AA+	AA

NEW ISSUE - FULL BOOK-ENTRY

RATINGS: S&P: "AA+"
Fitch: "AA"
(See "RATINGS.")

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and is exempt from State of California personal income taxes. In the further opinion of Bond Counsel, interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. Bond Counsel expresses no opinion regarding any other tax consequence related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds. See "TAX MATTERS."



\$64,010,000
LIVERMORE VALLEY WATER FINANCING AUTHORITY
Water Revenue Bonds,
2018 Series A

Dated: Date of Delivery

Due: July 1, as shown on inside cover

Authority for Issuance. The bonds captioned above (the "Bonds") are being issued by the Livermore Valley Water Financing Authority (the "Authority") under a resolution adopted by the Board of Directors of the Authority on March 21, 2018, and a Trust Agreement, dated as of April 1, 2018 (the "Trust Agreement") by and between the Authority and U.S. Bank National Association, as trustee for the Bonds (the "Trustees").

Use of Proceeds. The Bonds are being issued to provide funds to (i) pay the cost of the 2018 Water Project, which generally consists of a water treatment plant and related facilities; (ii) prepay the Agency's obligations in connection with the Cawelo Water District Certificate of Participation (Water Bank Project) Series 2006 (the "2006 Certificates"), currently outstanding in the principal amount of \$18,290,000; and (iii) pay the costs of issuing the Bonds. See "FINANCING PLAN."

Security for the Bonds. The Bonds are payable from and secured by a first pledge of and lien on "Revenues" received by the Authority which consist of Installment Sale Payments (the "2018 Installment Sale Payments") to be made by the Alameda County Flood Control and Water Conservation District, Zone 7 (the "Agency") to the Authority under a 2018 Installment Sale Agreement, dated as of April 1, 2018 (the "2018 Installment Sale Agreement") and certain other moneys. The Agency's 2018 Installment Sale Payments are payable from and secured by "Net Water Revenues" of the Agency's Water System, which are generally defined as the "Water Revenues" received from the Water System (as defined herein), less the amount required to pay all "Operation and Maintenance Costs" of the Water System. The Agency is not required to advance any moneys derived from any source of income other than the Net Water Revenues for payment of the 2018 Installment Sale Payments, as described herein. The Bonds are also secured by certain funds on deposit under the Trust Agreement. No debt service reserve account will be established for the Bonds. See "SECURITY FOR THE BONDS." Pursuant to the 2018 Installment Sale Agreement, the Agency may enter into additional obligations payable from Net Water Revenues on a parity with the 2018 Installment Sale Payments.

Bond Terms; Book-Entry Only. The Bonds will bear interest at the rates shown on the inside cover, payable semiannually on January 1 and July 1 of each year, commencing on January 1, 2018, and will be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple of \$5,000. The Bonds will be issued in book-entry only form, initially registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). Purchases of the Bonds will not receive certificates representing their interests in the Bonds. Payments of the principal of, premium, if any, and interest on the Bonds will be made by DTC, which is obligated in turn to remit such principal, premium, if any, and interest to its DTC Participants for subsequent disbursement to the beneficial owners of the Bonds. See "THE BONDS - General."

Redemption. The Bonds are subject to optional redemption and mandatory sinking fund redemption prior to maturity. See "THE BONDS - Redemption."

NOTWITHSTANDING ANYTHING CONTAINED HEREIN, THE AUTHORITY SHALL NOT BE REQUIRED TO ADVANCE ANY MONEY DERIVED FROM ANY SOURCE OTHER THAN THE REVENUES AS DESCRIBED HEREIN FOR THE PAYMENT OF THE INTEREST ON OR PRINCIPAL OF OR REDEMPTION PREMIUMS, IF ANY, ON THE BONDS. THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND ARE PAYABLE, AS TO INTEREST THEREON, PRINCIPAL THEREOF AND ANY PREMIUMS UPON THE REDEMPTION OF ANY THEREOF, SOLELY FROM THE REVENUES AS DESCRIBED HEREIN. AND THE AUTHORITY IS NOT OBLIGATED TO PAY THEM EXCEPT FROM THE REVENUES. ALL THE BONDS ARE EQUALLY SECURED BY A PLEDGE OF AND CHARGE AND LIEN UPON THE REVENUES, AND THE REVENUES CONSTITUTE A TRUST FUND FOR THE SECURITY AND PAYMENT OF THE INTEREST ON AND PRINCIPAL OF AND REDEMPTION PREMIUMS, IF ANY, ON THE BONDS AS PROVIDED HEREIN. THE BONDS ARE NOT A DEBT OF THE STATE OF CALIFORNIA OR ANY OF ITS POLITICAL SUBDIVISIONS, AND NEITHER SAID STATE NOR ANY OF ITS POLITICAL SUBDIVISIONS IS LIABLE THEREON, NOR IN ANY EVENT SHALL THE BONDS BE PAYABLE OUT OF ANY FUNDS OR PROPERTIES OTHER THAN THOSE OF THE AUTHORITY AS PROVIDED HEREIN. THE BONDS DO NOT CONSTITUTE AN INDEBTEDNESS WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY LIMITATION OR RESTRICTION.

THIS COVER PAGE CONTAINS CERTAIN INFORMATION FOR QUICK REFERENCE ONLY. IT IS NOT A SUMMARY OF THIS ISSUE OF BONDS. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT TO OBTAIN INFORMATION ESSENTIAL TO THE MAKING OF AN INFORMED INVESTMENT DECISION WITH RESPECT TO THE PURCHASE OF THE BONDS.

The Bonds are offered when, as and if issued by the Authority and received by the Underwriters, subject to the approval as to their legality by Orrick, Herrington & Sutcliffe LLP, San Francisco, California, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the Underwriters by Nossaman LLP, Irvine, California. It is anticipated that the Bonds will be available for delivery through the facilities of DTC on or about April 11, 2018.

Wells Fargo Securities

Stifel

The date of this Official Statement is March 28, 2018.

Outstanding Debt

The Water System has outstanding principal \$64M as of June 30, 2018 as shown in the debt service schedule below.

Livermore Valley Water Financing Authority Water Revenue Bonds, 2018 Series A				
Debt Service Schedule				
Fiscal Year Ending	Principal	Interest	Debt Service	Principal & Interest Remaining
6/30/2019		2,124,444	2,124,444	111,278,956
6/30/2020	1,305,000	2,908,913	4,213,913	107,065,044
6/30/2021	1,370,000	2,842,038	4,212,038	102,853,006
6/30/2022	1,445,000	2,771,663	4,216,663	98,636,344
6/30/2023	1,520,000	2,697,538	4,217,538	94,418,806
6/30/2024	1,595,000	2,619,663	4,214,663	90,204,144
6/30/2025	1,680,000	2,537,788	4,217,788	85,986,356
6/30/2026	1,770,000	2,451,538	4,221,538	81,764,819
6/30/2027	1,855,000	2,360,913	4,215,913	77,548,906
6/30/2028	1,955,000	2,265,663	4,220,663	73,328,244
6/30/2029	2,055,000	2,165,413	4,220,413	69,107,831
6/30/2030	2,165,000	2,059,913	4,224,913	64,882,919
6/30/2031	2,275,000	1,948,913	4,223,913	60,659,006
6/30/2032	2,395,000	1,832,163	4,227,163	56,431,844
6/30/2033	2,520,000	1,710,438	4,230,438	52,201,406
6/30/2034	2,640,000	1,582,588	4,222,588	47,978,819
6/30/2035	2,765,000	1,461,288	4,226,288	43,752,531
6/30/2036	1,765,000	1,361,863	3,126,863	40,625,669
6/30/2037	1,835,000	1,287,919	3,122,919	37,502,750
6/30/2038	1,905,000	1,220,000	3,125,000	34,377,750
6/30/2039	1,985,000	1,142,200	3,127,200	31,250,550
6/30/2040	2,065,000	1,061,200	3,126,200	28,124,350
6/30/2041	2,150,000	976,900	3,126,900	24,997,450
6/30/2042	2,235,000	889,200	3,124,200	21,873,250
6/30/2043	2,325,000	798,000	3,123,000	18,750,250
6/30/2044	2,420,000	703,100	3,123,100	15,627,150
6/30/2045	2,535,000	591,325	3,126,325	12,500,825
6/30/2046	2,665,000	461,325	3,126,325	9,374,500
6/30/2047	2,800,000	324,700	3,124,700	6,249,800
6/30/2048	2,945,000	181,075	3,126,075	3,123,725
6/30/2049	3,070,000	53,725	3,123,725	-
	64,010,000	49,393,400	113,403,400	

In addition to the 2018 Series A bonds, the Agency partners with other public agencies and pays for debt incurred by others on the Agency's behalf.

For example, The State of CA incurs debt for capital projects to maintain, improve or expand the State Water Project infrastructure and Zone 7, under the terms of its contract with the state, is obligated to pay its share of the debt payments regardless of the amount of water purchased.

The Agency has a bonded indebtedness limit that shall not exceed 5% of the assessed valuation of all taxable property in any zone lying, in whole or in part of the agency's service area. The current outstanding principal of \$64M is 0.02% of the total debt limit of \$2.8B.

This is per the Alameda County Flood Control and Water Conservation District Act, (ACT 20), §36.6.



Del Valle Water Treatment Plant Ozone Project

Basis of Accounting and Budgeting

The District uses enterprise (proprietary/water) and governmental (flood) funds to account for its activities.

Proprietary (water enterprise) funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services in connection with a proprietary fund's principal ongoing operations.

- The principal operating revenues of the water enterprise fund are received from the sale of water to outside customers. These revenues are recorded when earned, regardless of when payments are received.
- Operating expenses for the enterprise fund include the cost of sales and services, administrative expenses, and depreciation of capital assets. These expenses are recorded at the time liabilities are incurred, regardless of when the related cash flows take place.

All revenues and expenses not meeting the aforementioned definition are reported as non-operating revenues and expenses in the water enterprise.

Governmental (flood protection) funds are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Under this method, revenues are recognized when measurable and available, and expenses are generally recorded when a fund liability is incurred, as under accrual accounting. However, debt service expenditures and compensated absences (such as paid leave) are recorded when payment is due.

Property tax, benefit assessments, interest, grants and charges for

services are accrued when their receipt occurs within sixty days after the end of the accounting period so as to be both measurable and available.

- General capital asset acquisitions are reported as expenditures in governmental funds.
- Proceeds of general long-term debt and capital leases are reported as other financing sources.

The modified accrual basis of accounting is used for budgeting purposes. The budget shows items as expenses that normally would be recorded directly to the balance sheet, such as a Line of Credit. However, non-cash items such as depreciation are not budgeted in governmental (flood protection) funds.

Description of Funds

WATER ENTERPRISE OPERATIONS FUND – FUND 100

Primary Funding Source:

Water Rates.

The purpose of this fund is to ensure the delivery of high quality water to the Livermore-Amador Valley. This includes water treatment and distribution of potable (drinking) water; distribution of untreated agricultural/irrigation water; and surface water and groundwater management. Water distributed is a combination of local runoff and imported water from the State Water Project (Zone 7 only pumps groundwater previously imported and artificially recharged). Activities include water treatment; water quality analysis; water resource management and groundwater recharge and protection; and water supply planning and engineering.

STATE WATER PROJECT FUND – FUND 110

Primary Funding Source:

Property Taxes.

This fund finances the “fixed cost” payment to the State Department of Water Resources (DWR) to import water to Zone 7 through the State Water Project (SWP) South Bay Aqueduct (SBA). The purpose is to pay the costs for use of the State water delivery system, which includes repayment of voter approved, State incurred, long-term debt.

WATER RENEWAL/ REPLACEMENT AND SYSTEM-WIDE IMPROVEMENT FUND – FUND 120

Primary Funding Source:

Water Rates via a transfer from the Water Enterprise Operations (Fund 100).

The purpose of this fund is to ensure that the current water treatment and delivery systems are functioning effectively and that capital replacement and improvement needs for the associated infrastructure are funded. Fund 120 pays for capital projects including the renewal, replacement and improvement of the current water treatment and delivery system.

WATER EXPANSION FUND – FUND 130

Primary Funding Source:

Water Connection Fees.

The purpose of this fund is to ensure that Zone 7 is able to meet future needs for increased water demands. The program is primarily intended to provide funding for new facilities and additional water supplies to serve additional capacity requirements of new development, many of them fixed (i.e., bond payment obligations for debt incurred by others to increase capacity).

WATER ENTERPRISE FIXED ASSETS (EQUIPMENT) FUND – FUND 140

Primary Funding Source:

ACO Reserve (Accumulated Capital Outlay).

The purpose of this fund is for motor vehicle replacement and capital equipment.

FLOOD PROTECTION OPERATIONS – FUND 200

Primary Funding Source:

Property Taxes.

This fund provides for general administration and flood control services to ensure the controlled drainage of the Valley’s excess stormwater runoff. Zone 7 manages a watershed of 425 square miles in eastern Alameda County, receiving drainage from parts of Contra Costa, Santa Clara and San Joaquin Counties. More than 37 miles of flood control channels and regional drainage facilities are owned and maintained by Zone 7. This fund finances a comprehensive year-round maintenance program that includes repairing slides and erosion, refurbishing access roads and associated drainage ditches, installing and repairing gates and fences, and maintaining landscaped areas.

**FLOOD PROTECTION
STORMWATER DRAINAGE
AND DEVELOPMENT IMPACT
FEE FUND – FUND 210**

Primary Funding Source:
Development Impact Fees.

The purpose of this fund is to ensure that Zone 7 is able to meet future needs for expansion-related flood protection facilities. The program is primarily intended to provide funding for any flood protection facilities required for new development. Funds are expended on the planning, design, lands and right of way acquisition, environmental review, permitting, and construction for drainage projects.

**FLOOD PROTECTION FIXED
ASSETS FUND – FUND 220**

Primary Funding Source:
Not Funded.

The purpose of this fund is for activities related to Flood Protection Fixed Assets.

**ENVIRONMENTAL
PROTECTION AGENCY FUND
– FUND 230**

Primary Funding Source:
Federal Grant Funding.

The purpose of this fund accounts for the Environmental Protection Agency (EPA) grant used for a specific purpose, activity or program. The purpose of this project "Preparing for the Storm" will re-establish floodplain and riparian habitat, restore natural hydrology through levee setbacks on vineyard property, improve stormwater capture, reuse an estimated 50,000 cubic yards/year of coarse sediment, and reduce erosion. This project implements water quality and habitat actions listed under the San Francisco Estuary Partnership Comprehensive Conservation & Management Plan (SFEP CCMP).

**WATER FACILITIES FUND
– FUND 300**

Primary Funding Source:
Miscellaneous Fees & Deposits.

The purpose of this fund is for Chain of Lakes mitigation and planning reserve. Revenues include fees for quarry discharge exports, miscellaneous fees and deposits, and permit inspection deposits.

**WATER SUPPLY/RELIABILITY
FUND – FUND 310**

Primary Funding Source:
Not funded.

The purpose of this fund is for future water, water storage and Delta-related projects.

Listing of Funds

Section	Fund No.	Primary Funding Sources	Primary Fund Purpose	Appropriated?	Included in Audit?
Water Enterprise Fund	100	Water Sales	This operations and maintenance fund includes water treatment and distribution of potable (drinking) water; distribution of untreated agricultural/irrigation water; and surface water and groundwater management.	Yes	Yes
State Water Facilities Fund	110	Property Taxes	Finances the "fixed cost" payment to the State Department of Water Resources (DWR) to import water to Zone 7.	Yes	Yes
Capital Improvement, Renewal & Replacement (IR&R) Fund	120	Originally financed by Revenue Bonds, and Transfers from Water Enterprise End of Fiscal Year.	A sub-fund of Fund 100, this fund ensures that funding is available for capital renewal, replacement and system-wide improvement projects needed to keep the current water treatment and delivery systems functioning effectively.	Yes	Yes
Capital Expansion Fund	130	Connection Fees	This fund ensures that the Agency is able to meet future needs of new customers with development paying its own way.	Yes	Yes
Water Enterprise Fixed Assets (Equipment) Fund	140	ACO Reserve (Accumulated Capital Outlay)	Motor Vehicle Replacement & Capital Equipment	No	Yes
Flood Protection Operations Fund	200	Property Taxes	Provides for general administration and flood control services to ensure the controlled drainage of the Valley's excess stormwater runoff.	Yes	Yes
Flood Protection Development Impact Fee Fund	210	Development Impact Fees	Ensures that Zone 7 is able to meet future needs for expansion-related flood control facilities.	Yes	Yes
Environmental Protection Agency Fund	230	Federal Grant Fund	Accounts for the Environmental Protection Agency (EPA) grant used for a specific purpose, activity or program. The project "Preparing for the Storm" will re-establish floodplain and riparian habitat, restore natural hydrology, and reduce erosion.	Yes	Yes
Water Facilities Fund	300	Quarry Reclamation/ Tonnage fees, Quarry Discharge fees, T/O Construction & other Deposits, Encroachment Permit fees, Untreated Connection fee Deposits, and Unallocated Interest.	This fund is to be used for Chain of Lakes mitigation and planning reserve, quarry discharge exports, miscellaneous fees and deposits, and permit inspection deposits.	No	Yes
Water Supply/ Reliability Fund	310	Water supply/reliability/ quality & Delta related projects.	Per the Board resolution # 07-1986, the purpose of this fund is to be used for future water, water storage and Delta-related projects.	No	Yes

Matrix of Current Section/Fund Relationship

The chart below exemplifies the current relationship between Funds and Sections

Section	Fund 100	Fund 110	Fund 120	Fund 130	Fund 200	Fund 210
	Water Enterprise Operations	State Water Facilities	Water Renewal/ Replacement	Water Expansion	Flood Control	Flood Protection & Stormwater Drainage
Office of the General Manager	X	X	X	X	X	X
Finance	X	X	X	X	X	X
Employee Services	X		X	X	X	
Water Quality	X		X	X	X	X
Integrated Planning	X	X	X	X	X	X
Water Facilities	X		X	X	X	X
Groundwater	X		X	X	X	X
Operations	X		X	X	X	
Maintenance	X		X	X	X	
Flood Protection	X		X	X	X	X

Agency Programs and Sub-Programs

The programs represent the major components of the Agency for which all activities are reported. The Sub-Program is a sub-level of recording and reporting of activities.

Program 10 - Water Utility Support Services

The Water Utility Support Services Program includes sub-programs that support the overall Water Enterprise but are not specific to any one Program under Water Enterprise.

Sub-Programs within this

Program: Administration, Untreated Water, Energy, Water Quality Compliance, Water Utility Planning, Financial Planning, SCADA, Maintenance Shop, Debt Service.

Program 20 - Water Supply, Source & Conveyance

The Supply Source and Conveyance Program include the acquisition and conveyance of raw water from the source to the treatment plants or for release to the arroyos for recharging the groundwater basin.

Sub-Programs within this

Program: Administration, Water Conservation, State Water Project, Byron Bethany Irrigation District, Bay Delta (California Water Fix), Local Water Rights, Other Water Supplies.

Program 30 - Water Storage

The Water Storage Program involves the storage of raw water supplies, in the local groundwater basin and out-of-basin groundwater storage in Kern County.

Sub-Programs within this

Program: Administration, Groundwater Basin Monitoring, Groundwater Basin Management & Evaluation, Well Permits & Inspection, Semitropic, Cawelo, Chain of Lakes (partial).

Program 40 - Water Treatment

The Water Treatment Program involves the treatment of surface water and groundwater.

Sub-Programs within this

Program: Administration, Del Valle Water Treatment Plant, Patterson Pass Water Treatment Plant (both conventional and ultra-filtration), Mocho Groundwater Demineralization Plant and all wells.

Program 50 - Water Transmission

The Water Transmission Program involves the transmission, distribution and delivery of potable water to retail water suppliers and direct customers.

Sub-Programs within this

Program: Administration, Pipelines, Dougherty Reservoir, Turnouts, Pump Stations & Rate Control Stations, Permits & Inspection.

Program 60 - Central Administration

The Central Administration Program involves the administration and management of Zone 7 Water Agency which impacts both the water enterprise and flood control.

Sub-Programs within this

Program: Administration (Agency-Wide), Finance, Employee Services

Planning and Environmental Services, Security & Emergency Planning, Real Property, Administrative Facilities Maintenance/Services, Board of Directors, Chain of Lakes - Shared Water Enterprise/Flood Protection.

Program 70 - Flood Protection

The Flood Protection Program involves the maintenance and improvement of the flood control channels and infrastructure.

Sub-Programs within this

Program: Administration, Flood Control Planning, Encroachments & Inspection, Financial Planning, Routine Maintenance, Channel Repair/Improvements, USACE Rehabilitation, Emergency Response, Chain of Lakes (partial).

Cost Allocation

The Agency's operating and capital expenses, including employee wages and benefits, are allocated to each fund, section, sub-program and project based on actual expenses as tracked by the agency's cost accounting, project accounting and financial systems.

The basis for the allocation of benefits for each capital project is documented in the project budget approved by the Board and is equitably based upon parameters identifiable to the benefits received.

AGENCY OVERHEAD

Agency overhead is accounted for in Program 60 – Central Administration which covers the administration and management of Zone 7 and impacts both the water enterprise (proprietary) and flood control (governmental) funds.

Allocations to Flood Control - Fund 200 as overhead are based on prior year labor hours. For FY 2018-19 and 2019-20, the Agency overhead allocation amount is 8.2% for both years.

Agency overhead is also allocated to capital project labor at a rate of 52.8% for 2018-19 and 2019-20.

Financial Policies

FINANCIAL MANAGEMENT FRAMEWORK (APPENDIX A)

The purpose for the financial management framework is to assure that Zone 7 prudently manages its funds and maintains financial and accounting records of all transactions in accordance with generally accepted accounting principles and practices.

FINANCIAL RESERVES (APPENDIX B)

The Financial Reserve policy was initially adopted by the Board in 2005 and updated with the adoption of a new Interim Reserve policy in April 2013. Another update was completed in 2016 and a final Reserve Policy was adopted by the Board in September 2016. These revisions helped to further strengthen the Agency's financial position, maintain its fiscal health and better positioned the Agency to maintain a favorable credit rating. The policy covers reserves for:

- Operating/Emergency Reserves
- Flood Protection Project Reserves
- Rate Stabilization Reserve
- Drought Contingency Reserve
- Water Renewal, Replacement & System-Wide Improvements Capital Reserves
- Water Expansion Capital Reserves

INVESTMENT POLICY (APPENDIX C)

Zone 7's first Investment Policy was adopted by the Board on May 17, 2017 and is subject to annual review. The most recent review and update was adopted by the Board on May 16, 2018. The policy is intended to provide guidelines for the prudent investment of surplus cash, reserves, trust funds and restricted monies and to outline a policy for maximizing the efficiency of the Agency's cash management system.

DEBT POLICY (APPENDIX D)

Zone 7's first Debt Policy was adopted by the Board on June 21, 2017. The Debt Policy formally establishes parameters for issuing debt and managing a debt portfolio, which encompasses the Agency's specific capital improvement needs, its ability to repay financial obligations, and the existing legal, economic, financial and debt market conditions.

Employee Compensation and Benefits

Zone 7 Water Agency's (Agency) employee benefits are administered through the County of Alameda Employee Benefits Center (EBC). The following is an overview of the benefit programs currently offered to eligible Employees of the Agency.

MEDICAL PLANS

The Agency offers three types of Medical Plans. The agency contributes up to 90% of the total premium for the HMO Plans and 90% of the lowest cost HMO for the PPO Plan. Employees contribute 10% of the total premium cost, or more, depending on their choice of Medical Plan. The agency contribution is prorated based on the number of work hours up to 50% of the standard hours in a pay period. Employees pay any additional premium costs if they chose an alternate HMO or PPO Plan. If an eligible employee waives all medical coverage through the agency a monthly "Share the Savings" stipend may be provided up to \$200.00 per month.

DENTAL PLANS

The Agency provides a choice of Dental Plans including a PPO and a Dental Maintenance Option (DMO). The agency contributes the full cost of dental coverage for eligible employees as long as the employee works at least 50% of the standard hours in a pay period. The PPO option plan design is 100% Preventative, 85% Basic Care, 85% Major Care with a \$45 per individual deductible and annual maximum up to \$1,450 per year (plan maximums may vary based on whether the employee is represented or unrepresented, union bargaining agreements and/or MOUs). The DMO option has an orthodontic benefit for children as well as adults.

VISION BENEFIT

The Agency offers eligible employees a 100% employee-paid, Voluntary Vision Plans for themselves and their dependents through VSP® Vision Care. There are two options: a low option, Vision Choice Plus, and a high option, Vision Choice Premium. In addition, an annual eye exam is covered for participants in the HMO Medical Plans with corresponding co-pay. Some union bargaining units have a provision in their Memoranda of Understanding that after six months of continuous service, reimbursement for eye lenses or contacts is provided at an amount dependent upon the union bargaining unit. This benefit is available to employees only.

CAFETERIA PLAN

Zone 7 employees are provided an allowance, dependent upon the union bargaining unit, of up to \$3,100 annually in a non-taxable account to offset the premium cost for medical, dental, vision, employee supplemental life and AD&D. Based on IRS notice 2013-54 some monies remaining are placed in the Health Care Flexible Spending Account (Health FSA) to offset out of pocket eligible expenses.

LIFE INSURANCE

The Agency pays for a Basic Life Insurance policy of \$12,000-\$25,000 per employee based on specific affiliation with a union. In addition eligible employees may purchase additional Supplemental Life for themselves, spouse/domestic partner or dependent children. Eligible employees may also purchase Group Accidental Death and Dismemberment (AD&D) insurance for themselves and family through the cafeteria plan.

HEALTH FLEXIBLE SPENDING ACCOUNT

Employees may opt for payroll deductions on a pre-tax basis up to \$2,600 for eligible out-of-pocket medical, dental and vision expenses such as: prescription co-pays, office visit co-pays, prescription eye glasses or contact lenses or other eligible expenses as defined by the Internal Revenue Code, Section 125.

DEPENDENT CARE ASSISTANCE PROGRAM

For employees who have either children under age 13 or dependents (parent, sibling or in-law incapable of self-care) that are dependent upon the employee for care, employees may opt for payroll deductions on a pre-tax basis up to \$5,000 annually. These pre-tax dollars can be used to pay for day care expenses provided by a licensed facility.

COMMUTER BENEFIT PLAN

Employees can set aside up to \$255 a month on a pre-tax basis to purchase tickets for public transportation used to commute to employee's jobsite.

HOLIDAYS

Most employees are provided 11 paid holidays plus 4 floating holidays.

VACATION AND SICK LEAVE WITH PAY

Vacation accrual ranges from two weeks to five weeks depending upon years of service and the union bargaining unit to which the position is assigned. Sick leave accrues at the approximate rate of one-half day per bi-weekly pay period. The exact rate is based on the union bargaining unit and is defined within the corresponding Memorandum of Understanding (MOU) or Administrative Code.

VACATION PURCHASE PROGRAM

Zone 7 Water Agency allows eligible employees to purchase one or two additional weeks of vacation through payroll deductions. Additional information is based on the union bargaining unit and is defined within the MOU or Administrative Code.

EMPLOYEE ASSISTANCE PROGRAM (EAP)

Zone 7 Water Agency has an EAP available for employees, spouses/ domestic partners and eligible dependents. This program provides services such as: counseling, financial consulting, child and elder care consulting and some legal counseling.

DISABILITY OR INCOME REPLACEMENT

Two voluntary plans are offered: Short-term Disability and Long-term Disability can be purchased through a payroll deduction or with accrued vacation hours depending upon the union bargaining unit.

EDUCATIONAL STIPEND

Zone 7 Water Agency offers eligible employees reimbursement up to a maximum of \$7,500 per fiscal year for the cost of tuition and related materials for job-related educational expenses, job-related conference fees, or job-related seminar fees which shall maintain or upgrade the employee's skills on the job, or prepare the employee for promotional opportunities.

DEFERRED COMPENSATION PLAN

Zone 7 Water Agency offers a 457 Deferred Compensation program where an eligible employee who works at least 50% of their standard hours in a pay period can voluntarily contribute on a pre-tax basis, for the purpose of augmenting retirement income, a minimum of \$20 per pay period up to a total annual contribution based on guidelines set by the Internal Revenue Service (IRS). In 2015 the maximum contribution was \$18,000 per year by individuals under age 50, and \$24,000 per year for employees 50 years of age and older.

RETIREMENT - ACERA

Zone 7 Water Agency employee retirement program is provided through the Alameda County Employees' Retirement Association (ACERA), in which all permanent county and participating-employer's employees are required to participate. The cost-sharing multiple employer public Defined Benefit retirement plan is organized under the County Employees Retirement Law of 1937.

The Plan provides for retirement, disability, and death and survivor benefits. Annual cost of living (COL) adjustments to retirement allowances can be granted by the Retirement Board as provided by State statutes. Retirement benefits are based on age, date of membership, final average salary, years of service and specific percentage of employee/employer contributions. Subject to vested status (Zone 7's portion vesting after five years of employment), employees can withdraw contributions plus interests credited, or leave them as a deferred retirement when they terminate, or transfer to a reciprocal retirement system.

ACERA issues a publicly available financial report that includes financial statements and supplemental information of the Plan. That report is available by writing to Alameda County Employees' Retirement Association, 475 14th Street #1000, Oakland, California 94612.

Rates and Fees Schedule

TREATED WATER RATES

New Water Rate Setting Methodology; Current Water Rates. In 2015, Raftelis Financial Consultants, Inc. (“RFC”) was hired to analyze cost of service for the Water System and develop a three-year wholesale water rate schedule for calendar years 2016, 2017 and 2018. In October 2015, the Agency Board approved a three-year rate schedule with a temporary conservation surcharge of \$0.57 per 100 cubic feet (“CCF”) for calendar year 2016. Continued revenue losses due to drought conditions and State-mandated water use restrictions prompted staff to rehire RFC in 2016 to revisit restructuring rates to include a fixed component and to determine whether to extend the temporary conservation surcharge. Based on the study findings and staff recommendations, in October 2016 the Agency Board approved an extension of the temporary surcharge through December 31, 2017. The Agency Board also approved restructuring of rates to include a 35% fixed charge component. In 2017, the Agency implemented a fixed charge for each Agency Retailer and other customers to recover 35% of the Agency’s revenue requirements. The fixed charge provides increased revenue stability for the Agency and increase rate stability for its customers. In order to equitably recover the fixed charge, the fixed charge for each Agency Retailer and other customer is allocated proportionally to their average usage based on the previous two years. The Agency collects the fixed charge evenly over the course of 12 months from each Retailer and Direct Customer in order to ensure financial stability. With the establishment of a fixed charge in 2017, the volume-based rate was adjusted to recover nearly 100% of revenue from volume-based rates to 65% cost recovery. The volume-based rate is a uniform rate charge to each Agency Retailer and other customers per each unit of water delivered.

The table below shows the water rates charged by the Agency for calendar years 2017 and 2018 reflecting the fixed charge and volume-based rate described above.

Adopted Water Rates		
Calendar Year	Volume-Based Treated Water Rate per AF	Total Fixed Charges*
2017	\$1,359**	\$14,367,286
2018	\$888	\$15,849,610

* Actual monthly billing is 1/12 of the annual amount.

** Includes \$248 Drought Surcharge

In the Fall of 2018, Zone 7 will perform a Wholesale Water Rate Study to determine rates for calendar years 2019, 2020, 2021 and 2022.

Recharge services recharge fee is \$870 per acre-foot for 2016, and \$839 per acre-foot for 2017 and 2018. This fee represents the unit cost of replenishment water to achieve full cost of recovery when it is necessary to replenish the main groundwater basin when water is pumped in excess of a retailer’s Groundwater Pumping Quota or Independent Quota.

Temporary Treated Water service fee is an initial service establishment charge of \$148 per turnout for 2016, \$153 for 2017 and \$157 for 2018 for each new direct connection to the Zone system.

Monthly Meter Service Charge is \$21.00 per turnout for 2016, 2017 and 2018.

Fire and Standby Services Charge is \$148 per month for 2016, \$153 for 2017 and \$157 for 2018 for each connection.

In-Lieu water services water rate is \$138 per acre-foot for calendar years 2016, 2017 and 2018 for treated water contractors who takes delivery of treated water from Zone 7 in lieu of pumping groundwater per their Groundwater Pumping Quota.

UNTREATED WATER RATE

The Untreated Water Rate is based on the cost of imported water, supplemental water purchases, Bay-Delta related costs and an administrative fee. The administrative fee is for actual staff time spent on administering the untreated water program, including the contracts. The labor is calculated based on the number of hours staff work on untreated water related administration divided by the volume of water. The 2018 untreated water rate is \$129 per AF.

Temporary Untreated Water needs result from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. The temporary untreated water rate is based on the estimated cost of imported water and supplemental water purchases divided by the estimated customer deliveries minus the estimated available water from the Del Valle reservoir plus an administrative cost component based on actual staff costs. The 2018 temporary untreated water rate is \$2.57 per 1,000 gallons. The non-scheduled water rate is \$837 per AF, and the surplus untreated water rate is \$240 per AF.

WATER CONNECTION FEE

Water connection charges began in 1972 with the adoption of Ordinance No. FC 72-1 (the "Water Connection Ordinance"). The ordinance is applicable over the Agency area that includes Livermore, Pleasanton, Dublin, and surrounding communities. The Water Connection Ordinance has been amended several times and requires a one-time water connection fee for all new water services from a water system that is directly connected to the Agency's water supply system. This fee is used for funding the costs of expanding the Agency's water treatment and distribution system to serve new development. The connection fees the Agency charges are intended to assure that development pays its own way and to place new utility customers on equal basis from a financial perspective with existing customers. Once new customers are added to the system, they incur the obligation to pay the same service charges that existing customers pay. The Agency's connection fees are calculated using an "incremental cost" methodology, as existing system assets have been funded through property tax revenue, water rates and earlier connection fees.

In 2017, the Agency Board adopted the Fiscal Year 2016-17 Municipal and Industrial Connection Fee Program Update. The update undertook a comprehensive re-evaluation of projected demands, and new connections in the Agency's service area, and the necessary Water System expansion projects to meet the needs of future customers. The study resulted in a 7.3% increase in the Alameda County Connection Fee and an 11.3% increase in the Dougherty Valley Connection Fee, which became effective May 1, 2017. The study recommended annual inflationary adjustments to the fee to keep pace with inflation.

Effective January 1, 2018 the Agency Board set the connection fees as stated below.

Meter Size	Fee Factor	Connection Fee	Connection Fee (Dougherty Valley)
5/8" (DISPLACEMENT TYPE)	1.0	\$28,170	\$27,030
3/4" (DISPLACEMENT TYPE)	1.5	\$42,255	\$40,545
1" (DISPLACEMENT TYPE)	2.5	\$70,425	\$67,575
1½" (DISPLACEMENT TYPE)	5.0	\$140,850	\$135,150
1½" (OMNI C2)	16.0	\$450,720	\$432,480
1½" (OMNI T2)	16.0	\$450,720	\$432,480
2" (DISPLACEMENT TYPE)	8.0	\$225,360	\$216,240
2" Mueller MVR	11.5	\$323,955	N/A
2" (OMNI C2)	16.0	\$450,750	\$432,480
2" (OMNI T2)	20.0	\$563,400	\$540,660

The payments of water connection fees in Livermore, Pleasanton, are collected by the Building Departments of the Cities of Livermore and Pleasanton, and for Dublin by the Dublin San Ramon Services District.

Connection fees in the Dougherty Valley are to be paid by DSRSD and are due within 30 days of issuance of a building permit for the property receiving the new connection or 30 days from the date the new connection is made, whichever is earlier; and payable to the Zone 7 Capital Expansion Program.

STORMWATER AND DEVELOPMENT IMPACT FEE

Zone 7’s Board of Directors adopted Ordinance 2009-01, which established the Flood Protection and Storm Water Drainage Development Impact Fee (DIF) on March 18, 2009. The Ordinance prescribed the assessment of a DIF for developments creating new impervious surfaces as part of their projects.

Ordinance 2010-01, adopted on March 17, 2010, amended the fee schedule of Ordinance 2009-01 and limited the annual DIF adjustments until the SMMP and DIF were reevaluated. This evaluation is ongoing. In 2011, the Zone 7 Board adopted Ordinance 2012-01 deleting the specified 2012 DIF increase scheduled to be effective January 1, 2012 and maintaining the existing 2011 DIF of \$1.00 per square foot of new impervious surface created. As of January 1, 2018, the fee remains at \$1.00 per square foot of new impervious surface created.

In the Summer of 2018, Zone 7 will perform Development Impact Fee study and an initial financing strategy for the forthcoming SMMP Amendment.

WELL DRILLING AND DESTRUCTION PERMITS

Zone 7 Water Agency is the Administering Agency for Alameda County’s “Water Wells Ordinance” (General Ordinance Number 0-2015-20) in Eastern Alameda County. Accordingly, any planned new well, well repair or modification, well destruction, or exploratory soil boring that may intersect groundwater within Zone 7’s jurisdiction must be permitted by Zone 7 before starting the work. In addition, a Zone 7 drilling permit is required to dig, drill, bore, drive, advance by direct push any exploratory soil boring 10 feet or greater in depth within the groundwater basin boundaries of Zone 7 regardless of groundwater depth.

Effective January 1, 2016 the Zone 7 Board set the Water Well and Soil Boring Permit fees as:

Work Type	Permit Fee (per well)
Permits to construct, rehabilitate, or destroy wells including Water Supply Wells, Cathodic Protection/Anode Wells, Water Monitoring Wells, Piezometer/Inclinometer/ Seismic Monitoring Wells, and Geothermal Heat Pump-Construction.	\$397 per well
Permit to bore exploratory holes for Contamination Study.	\$265 per site
Permit to bore exploratory holes for Environmental Study.	\$265 per site
Permit to bore exploratory holes for Geotechnical Study.	\$265 per site
Permit for construction and destruction of any types of remediation systems, including vapor probes/vapor points for sampling, vapor injection/extraction bore-holes or remediation wells, sparge wells, recharge wells.	\$265 per site
Permit for construction and destruction of vapor monitoring wells.	\$265 per site

- A site includes the project parcel as well as any adjoining parcels as long as it is the same property owner.
- Permit Fees are waived for State & Federal Projects.

Financial Trend Indicators

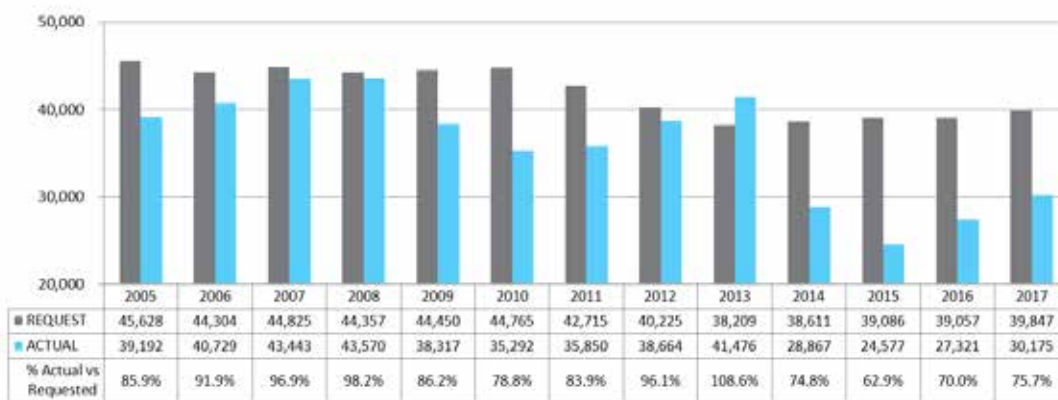
WATER SALES

The Agency tracks and compares retailer water requests versus actual water deliveries to chart trends and project possible, future water sales. As the primary revenue stream for the Agency, this vastly important indicator drives the budget and capital improvement planning well into the future.

A “new normal” is an elusive concept actively considered as we project water sales in the future since water users have buckled down and cut back water usage and corresponding deliveries during the Drought. In addition, the prolonged drought throughout the State and within our service area, water requests to and water sales from the Agency have continue their decline. Looking into the future with the prospects of a slight improvement for the drought conditions combined with the twenty-five percent conservation mandated by the state, sales/deliveries can be expected to remain lower as compared to 2013.

The chart below depicts data from the years 2005 through 2017.

Treated Water Requested vs. Delivered (AF)



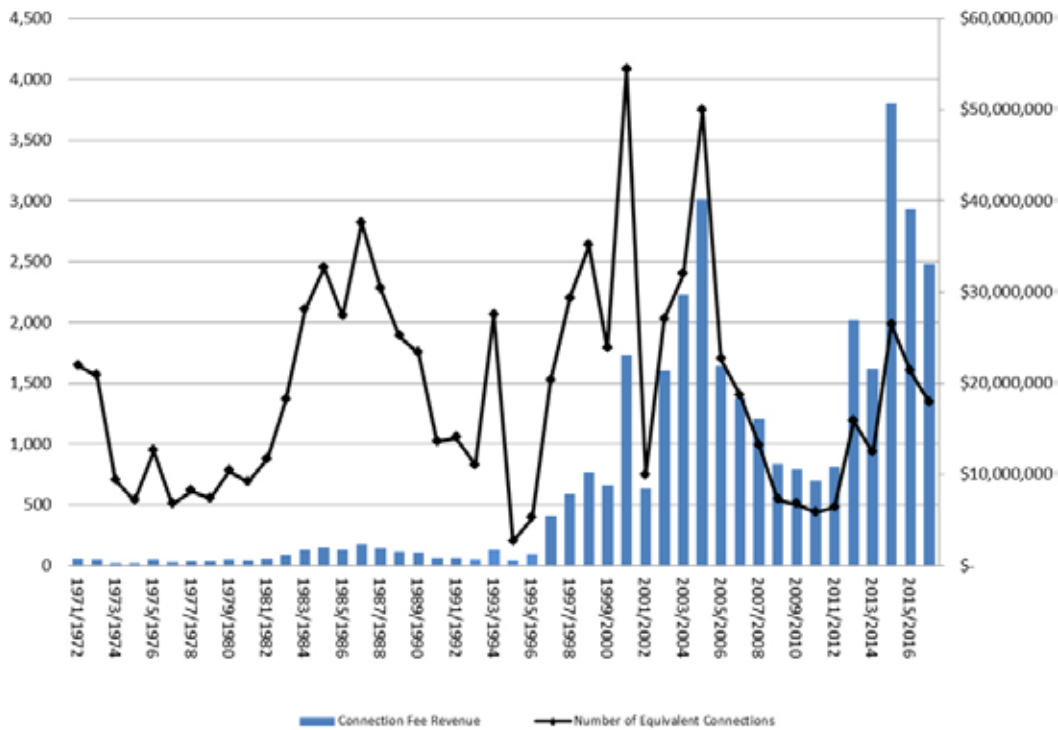
Source: Zone 7 Finance, Operations and Integrated Planning groups.

WATER CONNECTION FEE REVENUE

Historical connection fee revenue serves as an indication of future connections. In general, the economic cycle in terms of connection fee revenue, consists of several years of slow growth followed by a slow but steady recovery. Connection fee revenues are currently ramping back up and projecting moderate increases over the next few years.

The chart below depicts historical connection data from FY 1971-72 to 2016-17.

Connection Fee Revenue/Number of Equivalent Connections



Long Range Financial Plan Water Funds

FUND 100 – WATER ENTERPRISE OPERATIONS FUND

Fund 100 - Water Enterprise Fund	FY 18-19 Budget	FY 19-20 Budget	FY 20-21 Projection	FY 21-22 Projection	FY 22-23 Projection
Beginning Reserve Balance	\$ 12,087,957	\$ 13,199,269	\$ 14,414,348	\$ 16,117,202	\$ 17,924,772
Revenue	47,951,037	52,857,980	54,708,009	56,622,790	58,604,587
Operating Expenses	34,539,725	38,850,901	39,701,475	40,979,393	42,302,275
Transfer to Fund 120	12,300,000	12,792,000	13,303,680	13,835,827	14,389,260
End of Year Available Reserve Balance	\$ 13,199,269	\$ 14,414,348	\$ 16,117,202	\$ 17,924,772	\$ 19,837,823

FUND 110 – STATE WATER FACILITIES FUND

Fund 110 - State Water Facilities Fund	FY 18-19 Budget	FY 19-20 Budget	FY 20-21 Projection	FY 21-22 Projection	FY 22-23 Projection
Beginning Reserve Balance	\$ 21,942,211	\$ 24,907,828	\$ 22,864,411	\$ 21,014,017	\$ 17,684,687
Revenue	25,401,261	25,585,580	26,864,859	28,208,102	29,618,507
Expenses	22,435,644	27,628,997	28,715,253	31,537,431	34,676,070
End of Year Available Reserve Balance	\$ 24,907,828	\$ 22,864,411	\$ 21,014,017	\$ 17,684,687	\$ 12,627,124

FUND 120 – CAPITAL IMPROVEMENT, RENEWAL & REPLACEMENT FUND

Fund 120 - Renewal & Replacement/ Systemwide Improvements Fund	FY 18-19 Budget	FY 19-20 Budget	FY 20-21 Projection	FY 21-22 Projection	FY 22-23 Projection
Beginning Reserve Balance	\$ 57,441,056	\$ 32,656,791	\$ 38,573,913	\$ 40,183,593	\$ 40,593,420
Revenue	872,212	1,851,558	780,000	790,000	400,000
AMP Funding	12,300,000	12,792,000	13,303,680	13,835,827	14,389,260
Expenses	37,956,477	8,726,436	12,474,000	14,216,000	38,418,000
End of Year Available Reserve Balance	\$ 32,656,791	\$ 38,573,913	\$ 40,183,593	\$ 40,593,420	\$ 16,964,680

FUND 130 – CAPITAL EXPANSION FUND

Fund 130 - Capital Expansion Fund	FY 18-19 Budget	FY 19-20 Budget	FY 20-21 Projection	FY 21-22 Projection	FY 22-23 Projection
Beginning Reserve Balance	\$98,756,696	\$ 71,731,263	\$ 75,443,444	\$ 83,111,044	\$84,776,744
Revenue	46,478,583	39,994,644	37,543,600	49,669,700	43,814,500
Non-Discretionary Expenses	19,049,100	18,465,699	19,560,000	19,520,000	19,470,000
Other Expenses	54,454,916	17,816,764	10,316,000	28,484,000	37,876,000
End of Year Available Reserve Balance	\$71,731,263	\$ 75,443,444	\$ 83,111,044	\$ 84,776,744	\$71,245,244

Long Range Financial Plan – Flood Protection Funds*

FUND 200 – FLOOD PROTECTION OPERATIONS

Fund 200 - General Fund	FY 18-19 Budget	FY 19-20 Budget	FY 20-21 Projection	FY 21-22 Projection	FY 22-23 Projection
Beginning Reserve Balance	\$ 12,770,327	\$ 8,985,374	\$ 4,673,409	\$ 5,791,263	\$ 6,571,788
Revenue	9,219,902	9,596,217	10,076,028	10,579,829	11,108,821
Expenses	13,004,855	13,908,182	8,958,174	9,799,305	10,650,861
End of Year Available Reserve Balance	\$ 8,985,374	\$ 4,673,409	\$ 5,791,263	\$ 6,571,788	\$ 7,029,747

FUND 210 – FLOOD PROTECTION & STORMWATER DRAINAGE FUND

Fund 210 - Flood Protection & Stormwater Drainage DIF Fund	FY 18-19 Budget	FY 19-20 Budget	FY 20-21 Projection	FY 21-22 Projection	FY 22-23 Projection
Beginning Reserve Balance	\$ 62,143,188	\$ 61,171,929	\$ 61,874,472	\$ 62,602,889	\$ 62,725,787
Revenue	5,119,272	5,306,813	5,466,017	5,629,998	5,798,898
Other Expenses	6,090,531	4,604,270	4,737,600	5,507,100	6,276,600
End of Year Available Reserve Balance	\$ 61,171,929	\$ 61,874,472	\$ 62,602,889	\$ 62,725,787	\$ 62,248,085

*Fund 200 expenses include operating and capital project expenses. Fund 210 expenses are for capital projects. A Ten-Year Capital Improvement Plan (CIP) for the Flood Protection System is planned for completion in late 2018. A Development Impact Fee (DIF) study and Interim Financing strategy is being developed in concurrent with the CIP. The studies will help to prioritize and identify funding for the Stream Management Master Plan (SMMP) Amendment. For illustrative purposes only, this forecast includes funding for planning and design of the Arroyo las Positas: Chain of Lakes project which offers a significant amount of flood risk reduction. The total project cost is currently estimated at \$125M. This project will be funded from Fund 200 and Fund 210. The allocation between the funds will be determined as part of the DIF study. For illustrative purposes only, a funding allocation of 57% Fund 210 and 43% Fund 200 is used here and is subject to change based on the DIF study findings. Fund 210 revenue is based on the current DIF of \$1/SF and is subject to change based on the DIF study findings.



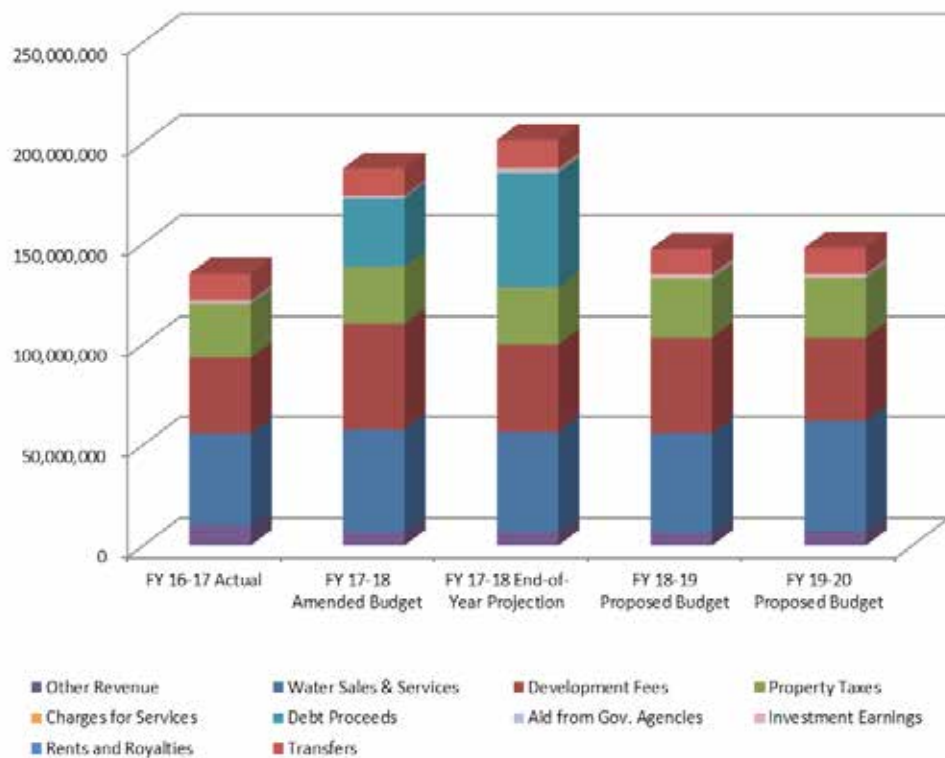
WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

REVENUE

Revenue

Water Sales and Services are the majority of revenues received. The current budget reflects all Board-adopted rates and fees. The following table summarizes Agency-wide revenue.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Water Sales & Services	\$45,246,629	\$51,261,508	\$49,785,438	\$49,494,775	\$54,563,683	-1%	10%
Development Fees	37,798,933	52,495,897	43,355,133	47,451,900	41,281,635	9%	-13%
Property Taxes	26,420,199	28,225,563	28,225,563	28,991,052	29,433,103	3%	2%
Charges for Services	85,441	181,650	84,101	100,195	101,750	19%	2%
Aid from Gov. Agencies	437,497	110,310	165,479	110,310	115,800	-33%	5%
Investment Earnings	1,373,201	1,084,618	2,178,815	2,422,551	2,140,548	11%	-12%
Other Revenue	10,381,651	6,525,085	6,685,125	6,394,574	7,480,363	-4%	17%
Rents and Royalties	128,887	75,910	136,576	75,910	75,910	-44%	0%
Other Financing Sources	13,277,013	47,399,000	70,964,770	12,300,000	12,792,000	0%	0%
Debt Proceeds	\$0	34,000,000	57,000,000	\$0	\$0	-100%	0%
Transfers	13,277,013	13,399,000	13,964,770	12,300,000	12,792,000	-12%	4%
Total	\$135,149,452	\$187,359,541	\$201,580,999	\$147,341,267	\$147,984,792	-27%	0%

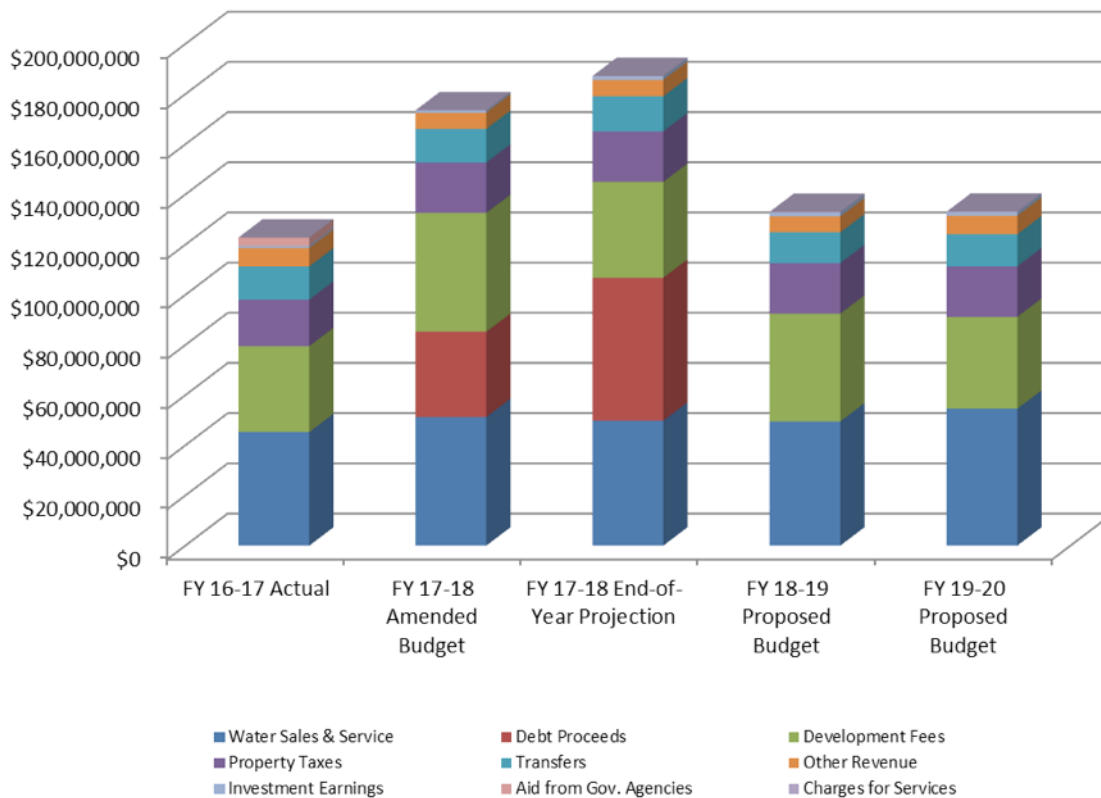


Revenue by Major Funding Area – Water Enterprise

Water sales and services provide the majority of revenues received for Water Enterprise.

The following table summarizes the Water Enterprise revenue.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Water Sales & Service	\$45,246,629	\$51,261,508	\$49,785,438	\$49,494,775	\$54,563,683	-1%	10%
Development Fees	34,278,726	47,353,572	38,212,808	42,957,656	36,611,541	12%	-15%
Property Taxes	18,524,751	20,150,000	20,150,000	20,150,000	20,150,000	0.0%	0%
Other Revenue	7,315,100	6,465,085	6,551,453	6,334,574	7,420,363	-3%	17%
Investment Earnings	854,222	732,870	1,406,640	1,666,933	1,438,975	18.5%	-14%
Aid from Gov. Agencies	3,309,367	45,610	100,779	45,610	51,100	-55%	12%
Charges for Services	50,851	134,000	38,769	52,545	54,100	36%	3%
Other Financing Sources	13,277,013	47,399,000	70,964,770	12,300,000	12,792,000	-55%	12%
Debt Proceeds	-	34,000,000	57,000,000	-	-	-100%	0%
Transfers	13,277,013	13,399,000	13,964,770	12,300,000	12,792,000	-12%	4%
Total	\$122,856,660	\$173,541,645	\$187,269,056	\$133,002,093	\$133,081,762	-29%	0%



Revenue by Major Funding Area – Flood Protection

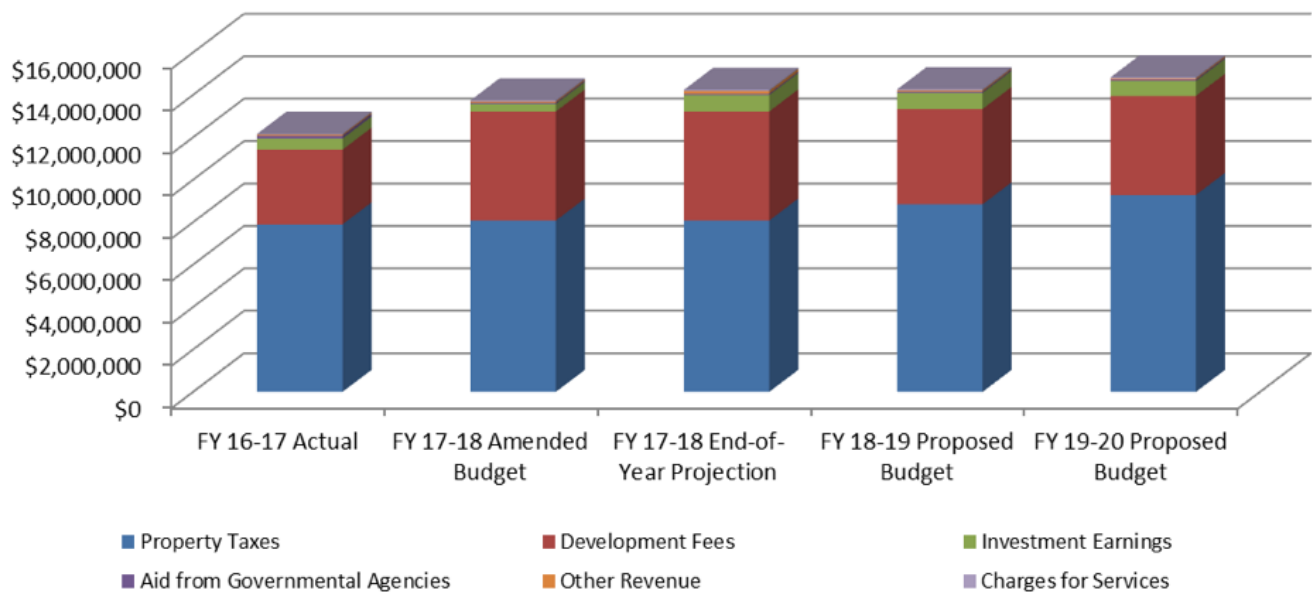
Property taxes are the majority of revenues received for Flood Protection.

The following table summarizes Flood Protection revenue.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Property Taxes	\$7,895,448	\$8,075,563	\$8,075,563	\$8,841,052	\$9,283,103	9%	5%
Development Fees	3,520,208	5,142,325	5,142,325	4,494,244	4,670,094	-13%	4%
Investment Earnings	518,979	351,748	772,175	755,618	701,573	-2%	-7%
Aid from Governmental Agencies	137,326	64,700	64,700	64,700	64,700	0%	0%
Other Revenue	57,352	60,000	133,672	60,000	60,000	-55%	0%
Charges for Services	34,589	47,650	45,332	47,650	47,650	5%	0%
Total	\$12,292,792	\$13,817,896	\$14,311,943	\$14,339,174	\$14,903,030	0%	4%

Notes:

- Property taxes for FY 2018-20 are based on an estimated 5% growth in assessed valuation



Water Enterprise Fund (Fund 100)

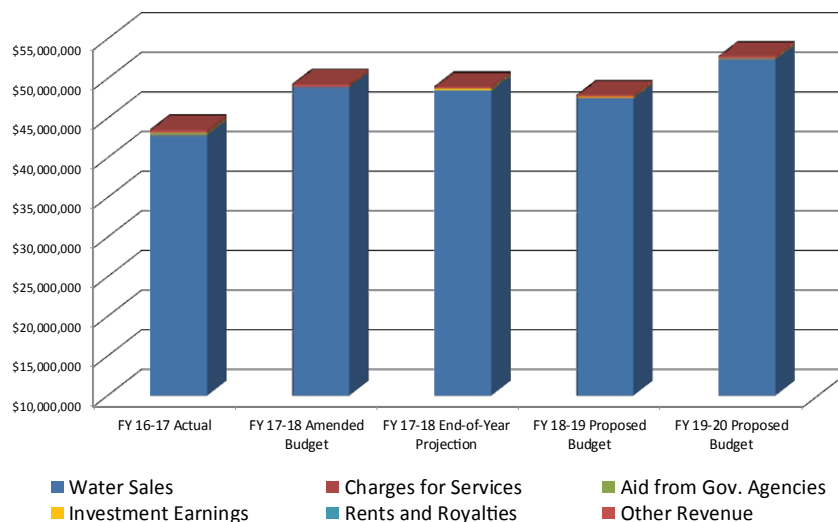
This budget finances Zone 7’s water program which includes general administration, facilities engineering, operations and maintenance of the water supply and delivery system, water resources management, and water supply planning and design.

The purpose of this fund is to ensure the delivery of high quality water to the Livermore-Amador Valley. This fund is funded by water rates. Revenues by year are shown in the following table and graph.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-Of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 Vs. FY 17-18 Projections	FY 18-19 Vs. FY 19-20
Water Sales	\$42,975,959	\$49,034,188	\$48,608,004	\$47,640,173	\$52,539,364	-2%	10%
Charges For Services	50,261	131,500	36,269	49,545	51,600	37%	4%
Aid From Gov. Agencies	196,921	-	55,169	-	-	-100%	0%
Investment Earnings	28,387	43,954	104,004	127,019	132,066	22%	-2%
Rents And Royalties	-	-	58,400	-	-	-100%	0%
Other Revenue	367,323	137,797	176,021	134,300	134,950	-24%	0%
Total	\$43,618,851	\$49,347,439	\$49,037,866	\$47,951,037	\$52,857,980	-2%	10%

Notes:

- The proposed budget includes a proposed water rate increase of CPI plus 5% for Calendar Years 2018 and 2019.
- Assumed 17% conservation for the FY 2018-19 budget
- Assumed 15% conservation for the FY 2019-20 budget



State Water Facilities Fund (Fund 110)

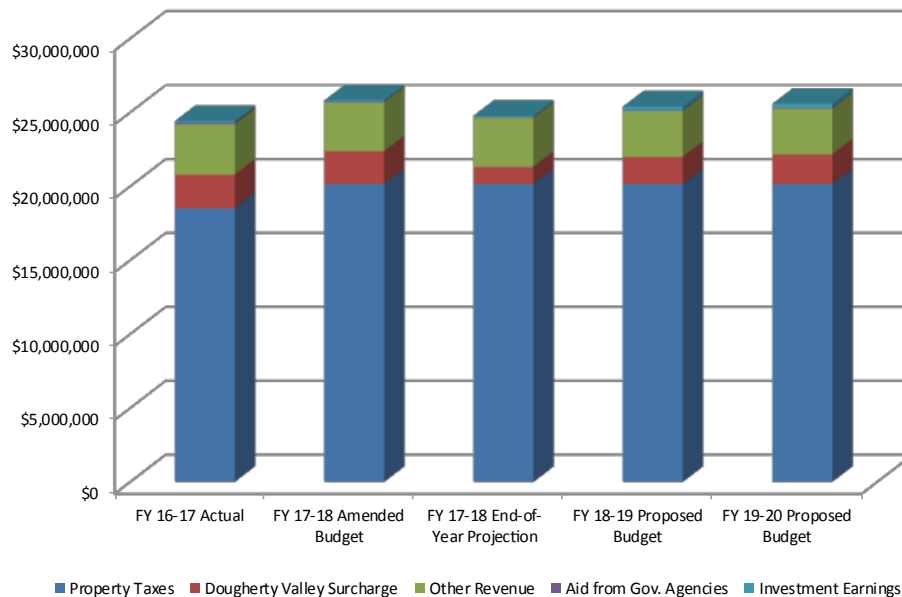
This budget finances the “fixed cost” payment to the State Department of Water Resources (DWR) to import water to Zone 7. The purpose is to pay the costs for use of the State water delivery system, which includes repayment of voter-approved, State-incurred, long-term debt.

This fund is funded primarily by property taxes. Revenues by year are shown in the following table and graph.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Property Taxes	\$18,524,751	\$20,150,000	\$20,150,000	\$20,150,000	\$20,150,000	0%	0%
Dougherty Valley Surcharge	2,270,670	2,227,320	1,177,434	1,854,602	2,024,319	58%	9%
Other Revenue	3,408,929	3,307,288	3,307,288	3,107,471	3,097,123	-6%	0%
Aid from Gov. Agencies	103,250	45,610	45,610	45,610	51,100	0%	12%
Investment Earnings	105,137	75,888	102,075	243,578	263,038	139%	8%
Total	\$24,412,737	\$25,806,106	\$24,782,407	\$25,401,261	\$25,585,580	2%	1%

Notes:

- The property tax levy for FY 2018-19 is \$20M and \$20M for FY 2019-20
- Other Revenue includes DWR refunds



Water Renewal/Replacement & System-wide Improvements Fund (Fund 120)

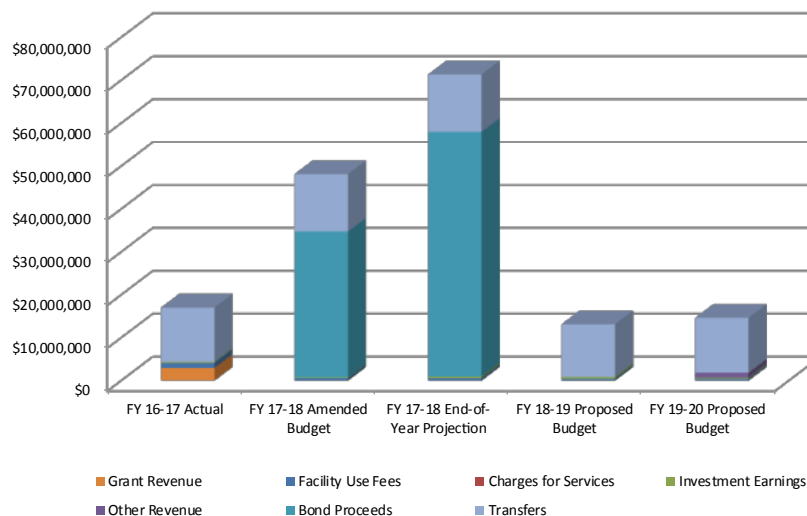
This is a subfund of the Water Enterprise Operations (Fund 100). The purpose of these programs is to ensure that the current water treatment and delivery systems are functioning effectively and that capital replacement and improvement needs are funded. This fund is funded by annual transfers from Fund 100.

Revenues by year are shown in the following table and graph.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Grant Revenue	\$3,004,598	-	-	-	-	0%	0%
Facility Use Fees	1,150,445	600,000	595,328	420,000	420,000	-29%	0%
Charges for Services	590	2,500	2,500	3,000	2,500	20%	-17%
Investment Earnings	224,327	153,093	376,828	448,212	326,558	19%	-27%
Other Revenue	6,536	-	-	-	1,102,500	-100%	0%
Other Financing Sources	12,661,760	47,399,000	70,399,000	12,300,000	12,792,000	-83%	4%
Bond Proceeds	-	34,000,000	57,000,000	-	-	0%	0%
Transfers	12,661,760	13,399,000	13,399,000	12,300,000	12,792,000	-8%	4%
Total	\$17,048,257	\$48,154,593	\$71,373,656	\$13,171,212	\$14,643,558	-82%	11%

Notes:

- FY 2017-18 includes bond proceeds of \$57M.
- Transfers from Fund 100 to Fund 120 are captured here as other financing sources to Fund 120.



Water Expansion Fund (Fund 130)

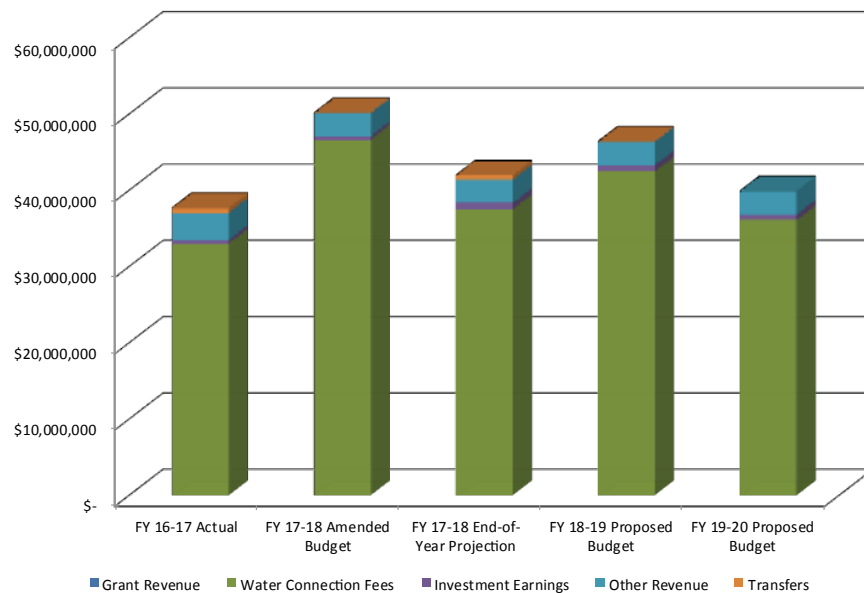
The purpose of this program is to ensure that Zone 7 is able to meet future needs for water demands. The program is primarily intended to provide funding for new facilities and water supplies for new development and to fund programs that encourage water conservation measures. The funding for this program comes from connection fees and is in conformance with the Board’s stated policy that new development funds its own needs. Revenues come from Facility Use fees collected from new users in the Dougherty Valley and interest earned on any deposited funds.

Revenues by year are shown in the following table and graph.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Grant Revenue	\$4,598	-	-	-	-	0%	0%
Water Connection Fees	33,128,281	46,753,572	37,617,480	42,537,656	36,191,541	13%	-15%
Investment Earnings	496,371	459,935	823,733	848,124	717,313	3%	-15%
Other Revenue	3,532,312	3,020,000	3,068,144	3,092,803	3,085,790	1%	0%
Transfers	615,253	-	565,770	-	-	-100%	0%
Total	\$37,776,815	\$50,233,507	\$42,075,127	\$46,478,583	\$39,994,644	10%	-14%

Notes:

- FY 2018-19 and 2019-20 assume 1,354 and 1,493, new water connections, respectively. Also assumes 3% annual increases to the water connection fee (fees are adjusted on January 1 of each year based on the change in the Engineering News Record Construction Cost index)
- Other revenues include DWR refunds



Flood Protection Fund (Fund 200)

This budget unit provides the funding for flood protection services and related administration. The purpose of this program is to ensure the controlled drainage of the Valley's excess water runoff. Zone 7 manages a watershed of nearly 425 square miles within eastern Alameda County which, in turn drains parts of Contra Costa, Santa Clara and San Joaquin Counties.

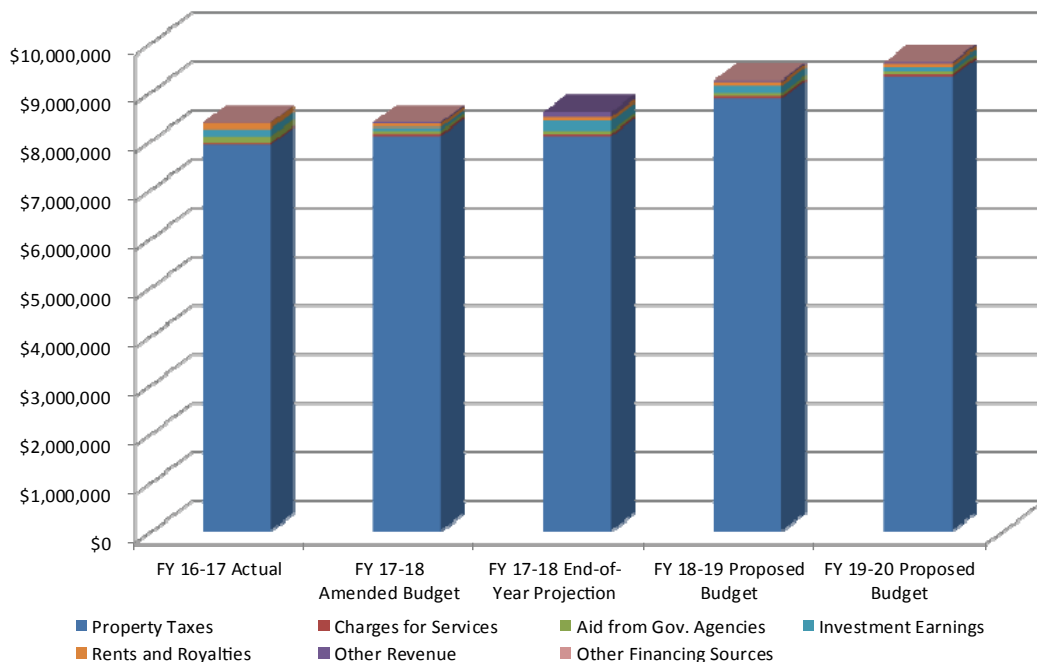
This fund is funded by property taxes.

Revenues by year are shown in the following table and graph.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Property Taxes	\$7,895,448	\$8,075,563	\$8,075,563	\$8,841,052	\$9,283,103	9%	5%
Charges for Services	34,589	47,650	45,332	47,650	47,650	5%	0%
Aid from Gov. Agencies	137,326	64,700	64,700	64,700	64,700	0%	0%
Investment Earnings	151,520	65,247	204,424	155,590	89,854	-24%	-42%
Rents and Royalties	128,887	75,910	78,176	75,910	75,910	-3%	0%
Other Revenue	13,260	35,000	105,200	35,000	35,000	-67%	0%
Total	\$8,361,033	\$8,364,070	\$8,573,395	\$9,219,902	\$9,596,217	8%	4%

Notes:

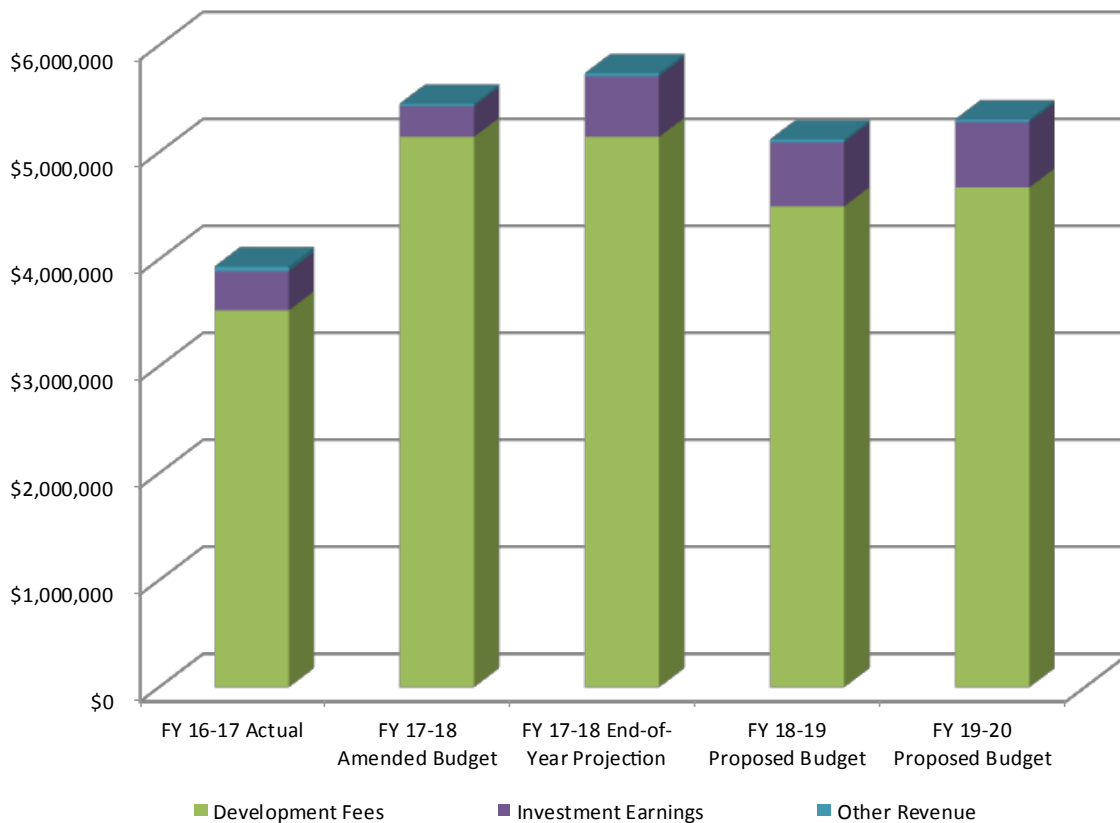
- Property taxes for FY 2018-20 are based on an estimated 5% growth in assessed valuation



Flood Protection & Drainage Development Impact Fee Fund (Fund 210)

The purpose of this program is to ensure that Zone 7 is able to meet future needs for flood control facilities. The program is primarily intended to provide funding for any flood control facilities required for new development. The funding for this program comes entirely from new development fees. Funds are expended on the planning, design, lands and R/W acquisition, environmental review, permitting, construction, etc., for drainage projects. Revenues by year are shown in the following table and graph.

Category	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Development Fees	\$3,520,208	\$5,142,325	\$5,142,325	\$4,494,244	\$4,670,094	-13%	4%
Investment Earnings	367,459	286,501	567,751	600,028	611,719	6%	2%
Other Revenue	44,092	25,000	28,472	25,000	25,000	0%	0%
Total	\$3,931,759	\$5,453,826	\$5,738,548	\$5,119,272	\$5,306,813	-11%	4%



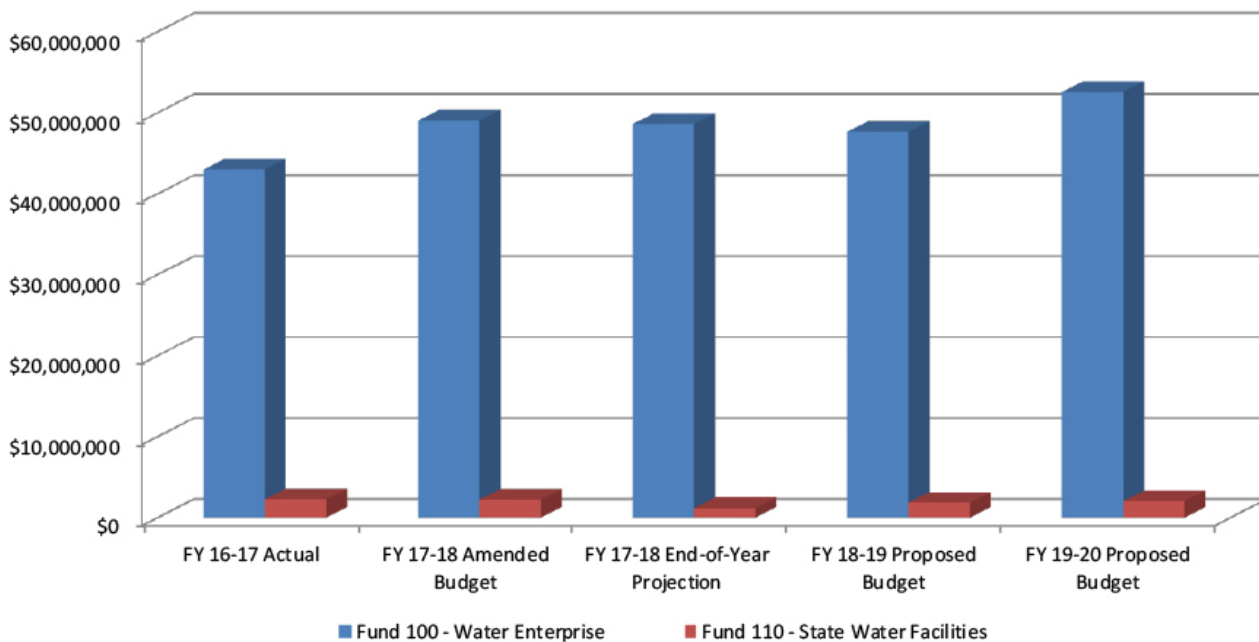
Water Sales

Water sales are the highest source of revenue for the Agency. Our major customers are the cities of Pleasanton and Livermore, the Dublin-San Ramon Services District (for Dublin and the Dougherty Valley area, in San Ramon), and California Water Service Company, Livermore District, collectively referred to as the Retailers.

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Pro-jection	FY 18-19 Pro-posed Budget	FY 19-20 Pro-posed Budget	% Change	
						FY 18-19 vs. FY 17-18 Pro-jections	FY 18-19 Budget vs. FY 19-20
Fund 100 - Water Enterprise	\$42,975,959	\$49,034,188	\$48,608,004	\$47,640,173	\$52,539,364	-2%	10%
Fund 110 - State Water Facilities	2,270,670	2,227,320	1,177,434	1,854,602	2,024,319	58%	9%
Total	\$45,246,629	\$51,261,508	\$49,785,438	\$49,494,775	\$54,563,683	-1%	10%

Notes:

- The proposed budget includes a proposed water rate increase of CPI plus 5% for Calendar Years 2018 and 2019.
- Assumed 17% conservation for the FY 2018-19 budget
- Assumed 15% conservation for the FY 2019-20 budget



Zone 7 Treated Water Rate History

Effective Date	Rate per Acre-Foot	% Change
January 1, 2013	\$945	0%
January 1, 2014	\$970	2.65%
January 1, 2015	\$999	3%
January 1, 2016	\$1,372	37%

The table below Table 10 shows the water rates charged by the Agency for calendar years 2017 and 2018 reflecting the fixed charge and volume-based rate described above.

Adopted Water Rates

Calendar Year	Volume-Based Treated Water Rate per AF	Total Fixed Charges*
2017	\$1,359**	\$14,367,286
2018	\$888	\$15,849,610

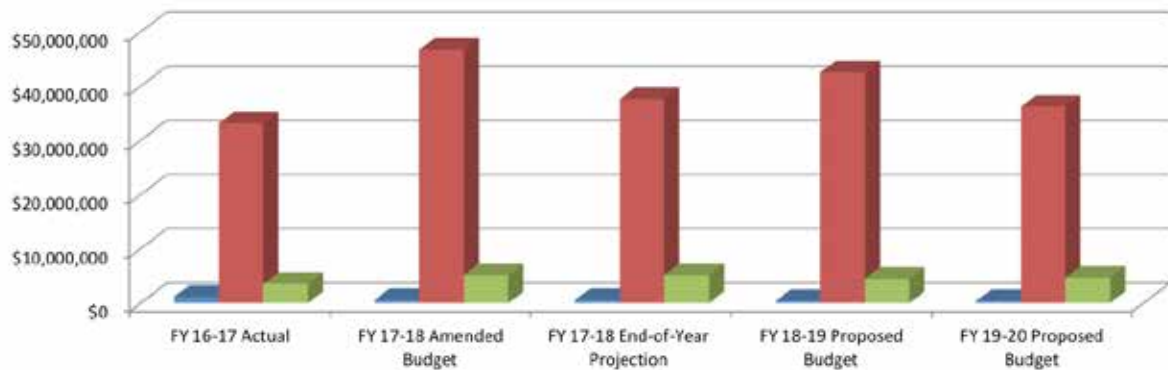
* Actual monthly billing will be 1/12 of the annual amount.

** Includes \$248 Drought Surcharge

Development Fees (including connection, facility use and development impact fees)

Development fees are the second highest source of revenue for the Agency.

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Fund 120 - Water Renewal/ Replacement & Systemwide Improvements	\$1,150,445	\$600,000	\$595,328	\$420,000	\$420,000	-29%	0%
Fund 130 - Water Expansion	33,128,281	46,753,572	37,617,480	42,537,656	36,191,541	13%	-15%
Fund 210 - Flood Protection & Stormwater Drainage	3,520,208	5,142,325	5,142,325	4,494,244	4,670,094	-13%	4%
Total	\$37,798,933	\$52,495,897	\$43,355,133	\$47,451,900	\$41,281,635	9%	-13%



■ Fund 120 - Water Renewal/Replacement & Systemwide Improvements ■ Fund 130 - Water Expansion ■ Fund 210 - Flood Protection & Stormwater Drainage

Zone 7 Water Connection Fee History			
Effective Date	Zone 7	Dougherty Val-ley	% Change
January 1, 2006	\$13,500	\$12,500	3%
January 1, 2007	\$19,570	\$18,120	45%
January 1, 2008	\$20,270	\$18,770	4%
January 1, 2009	\$21,550	\$19,950	6%
January 1, 2010	\$21,550	\$19,950	0%
January 1, 2011	\$22,230	\$20,580	3%
January 1, 2012	\$22,930	\$21,230	3%
January 1, 2013	\$23,500	\$21,750	2%
January 1, 2014	\$24,030	\$22,240	2%
January 1, 2015	\$24,830	\$22,980	3%
January 1, 2016	\$25,320	\$23,430	2%
May 1, 2017	\$27,180	\$26,080	11%
January 1, 2018	\$28,170	\$27,030	4%

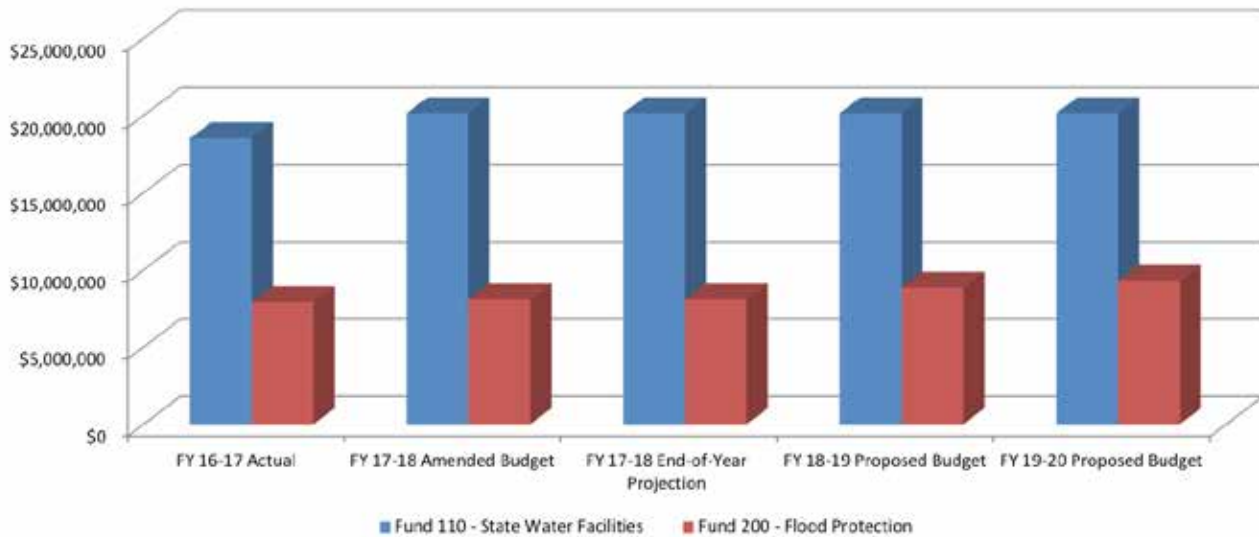
Property Taxes

Property taxes are the third highest source of revenue for the Agency.

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Fund 110 - State Water Facilities	\$18,524,751	\$20,150,000	\$20,150,000	\$20,150,000	\$20,150,000	0%	0%
Fund 200 - Flood Protection	7,895,448	8,075,563	8,075,563	8,841,052	9,283,103	9%	5%
Total	\$26,420,199	\$28,225,563	\$28,225,563	\$28,991,052	\$29,433,103	3%	2%

Notes:

- Property taxes for FY 2018-20 are based on an estimated 5% growth in assessed valuation
- The property tax levy for FY 2018-19 is \$20M and \$20M for FY 2019-20





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EXPENSES

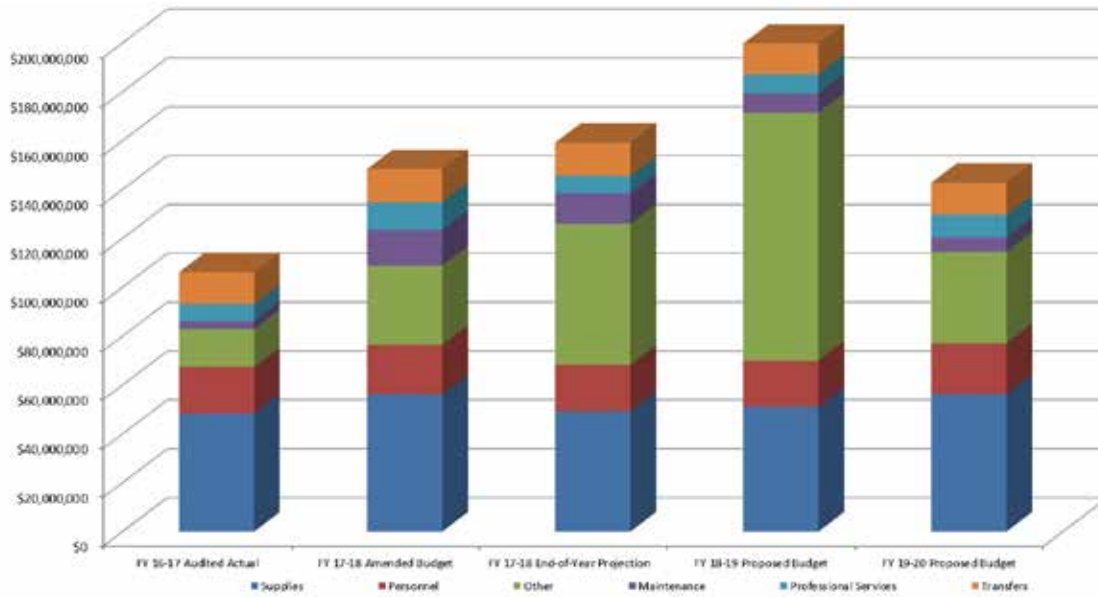
Total Expenses

The following table summarizes Agency-wide expenses by expense type.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Supplies	\$48,280,830	\$56,156,224	\$49,274,477	\$51,009,886	\$56,207,596	4%	10%
Personnel	19,119,830	20,278,672	18,981,882	19,026,557	20,998,187	0%	10%
Other	15,492,702	32,338,255	57,726,863	101,491,805	37,295,955	76%	-63%
Maintenance	3,315,231	14,805,546	12,398,778	7,793,506	5,948,659	-37%	-24%
Professional Services	6,924,126	11,217,388	7,173,196	7,998,354	9,343,379	12%	17%
Transfers	13,045,212	13,603,989	13,613,889	12,511,139	13,009,473	-37%	-24%
Total	\$106,177,931	\$148,400,074	\$159,169,085	\$199,831,247	\$142,803,249	26%	-29%

Notes:

- Other includes capital projects
- Transfers from Fund 100 to Fund 120 are captured here as expenses to Fund 100



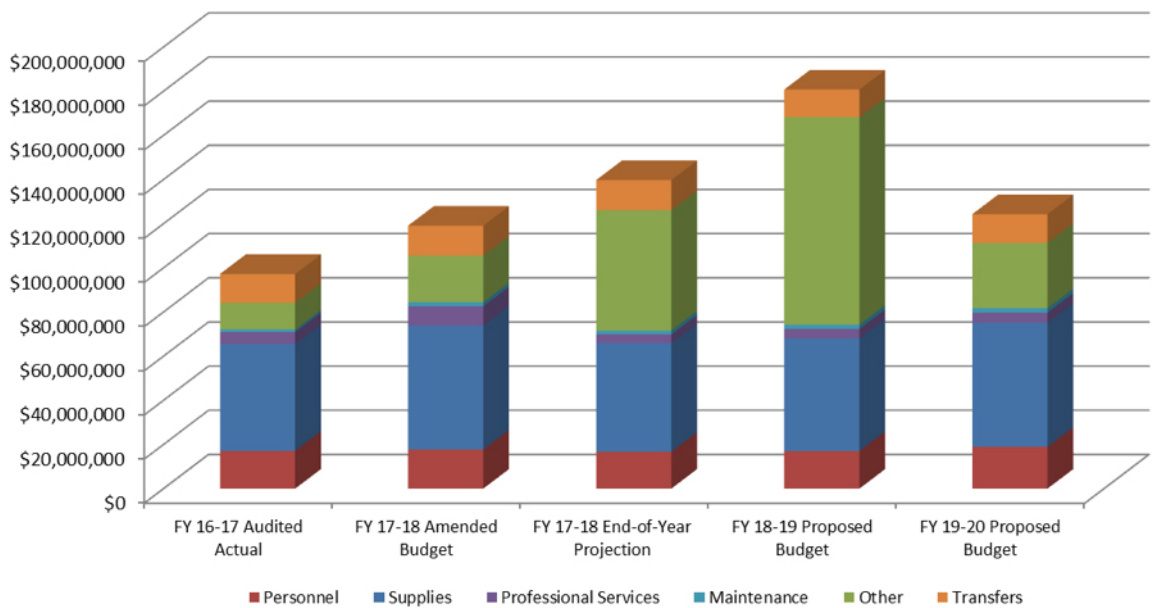
Expenses by Major Funding Area – Water Enterprise

The following table summarizes water enterprise expenses.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel	\$17,158,106	\$17,668,386	\$16,643,317	\$16,996,694	\$18,900,030	2%	11%
Supplies	48,280,830	56,156,224	49,274,477	51,009,886	56,207,596	4%	10%
Professional Services	5,448,411	8,731,964	3,876,590	4,336,695	4,609,770	12%	6%
Maintenance	1,188,279	1,865,132	1,780,184	1,953,309	2,012,876	10%	3%
Other	12,098,876	21,067,999	54,548,040	93,941,871	29,565,197	72%	-69%
Transfers	13,032,767	13,590,656	13,600,556	12,497,406	12,995,328	-8%	4%
Total	\$97,207,268	\$119,080,361	\$139,723,164	\$180,735,861	\$124,290,797	29%	-31%

Notes:

- Other includes capital projects.
- Transfers from Fund 100 to Fund 120 are captured here as expenses to Fund 100.

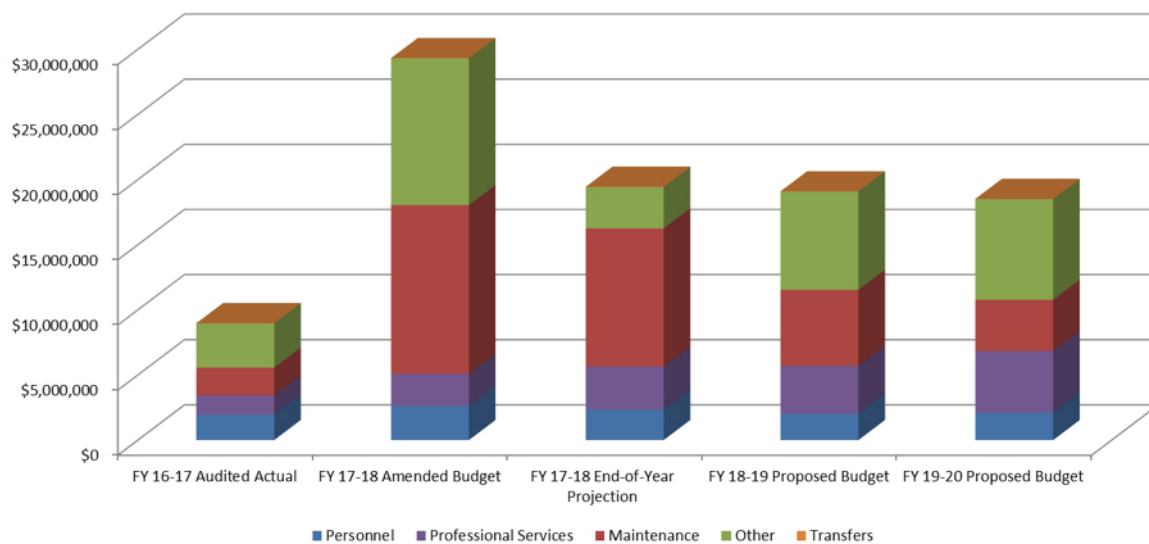


Expenses by Major Funding Area – Flood Protection

Maintenance activities (including repair, replacement and improvement projects and expansion projects) are the major use for the Flood Protection funds.

The following table summarizes Flood Protection expenses.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel	\$1,961,724	\$2,610,286	\$2,338,565	\$2,029,863	\$2,098,157	-13%	3%
Professional Services	1,475,715	2,485,424	3,296,606	3,661,659	4,733,609	11%	29%
Maintenance	2,126,952	12,940,414	10,618,594	5,840,197	3,935,783	-45%	-33%
Other	3,393,826	11,270,256	3,178,823	7,549,934	7,730,758	138%	2%
Transfers	12,444	13,333	13,333	13,733	14,145	3%	3%
Total	\$8,970,662	\$29,319,713	\$19,445,921	\$19,095,386	\$18,512,452	-2%	-3%



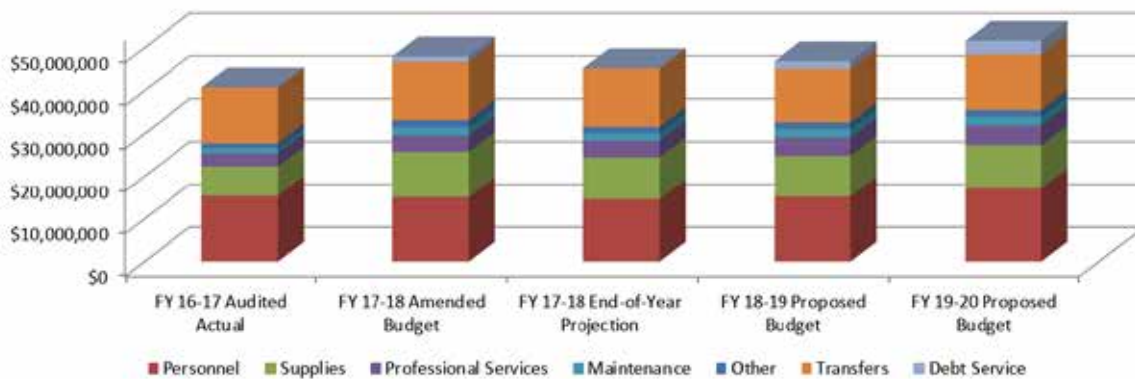
Water Enterprise Fund (Fund 100)

This budget finances Zone 7’s water program which includes operations and maintenance of the water supply and delivery system, general administration, facilities engineering, water resources management, and water supply planning and design. The purpose of this fund is to ensure the delivery of high quality water to the Livermore-Amador Valley. Expenses by type are shown in the following table and graph.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel	\$15,441,752	\$15,153,197	\$14,677,587	\$15,266,665	\$17,206,004	4%	13%
Supplies	6,887,632	10,587,631	9,780,761	9,525,143	10,112,930	-3%	6%
Professional Services	3,105,332	3,853,478	3,876,590	4,336,695	4,609,770	12%	6%
Maintenance	1,188,279	1,865,132	1,780,184	1,953,309	2,012,876	10%	3%
Other	1,115,432	1,728,241	1,489,023	1,568,096	1,582,655	5%	1%
Transfers and Other Finance Uses	13,032,767	14,794,108	13,600,556	14,189,816	16,118,666	4%	14%
Debt Service	-	1,203,452	-	1,692,410	3,123,338	0%	85%
Transfers	13,032,767	13,590,656	13,600,556	12,497,406	12,995,328	-8%	4%
Total	\$40,771,195	\$47,981,787	\$45,204,701	\$46,839,724	\$51,642,901	4%	10%

Note:

- Transfers from Fund 100 to Fund 120 are captured here as expenses.



State Water Facilities Fund (Fund 110)

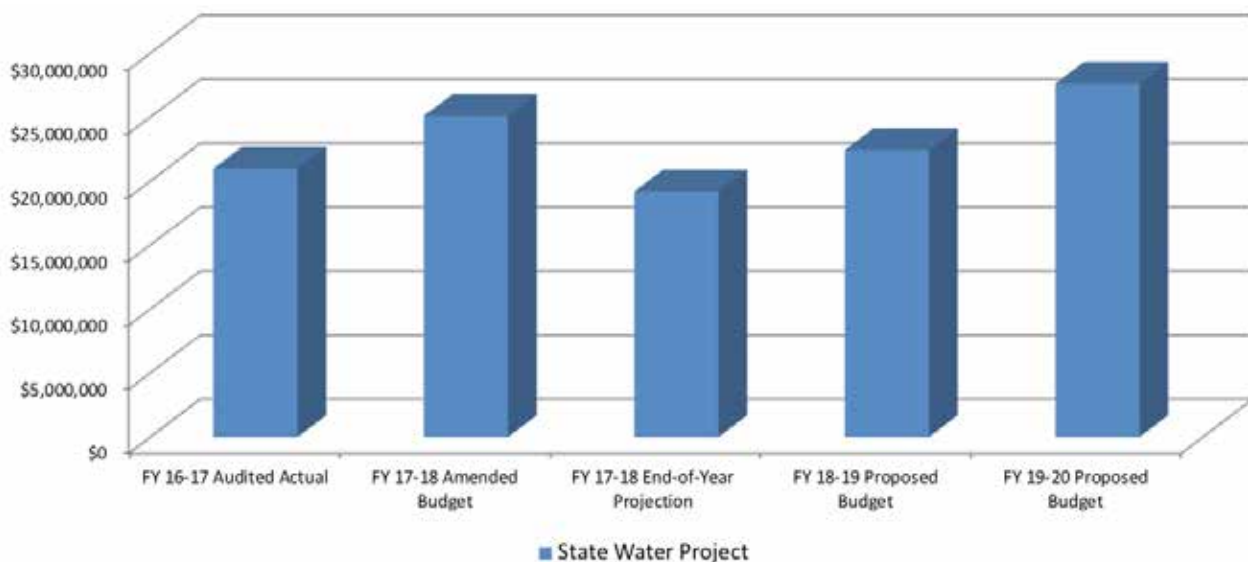
This budget finances the “fixed cost” payment to the State Department of Water Resources (DWR) for the State Water Project that imports water to Zone 7. The purpose is to pay the costs for use of the State water delivery system, which includes repayment of voter approved, State incurred, long-term debt.

Expenses by year are shown in the following table and graph.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
State Water Project	\$20,985,604	\$25,109,685	\$19,203,854	\$22,435,644	\$27,628,997	17%	23%
Total	\$20,985,604	\$25,109,685	\$19,203,854	\$22,435,644	\$27,628,997	17%	23%

Note:

- State Water Project FY 2018-20 budgets are based on the Department of Water Resources invoices and estimates for the State Water Project., which includes inflation and the true-up of underbilled Minimum OMP&R Component charges.



Water Renewal/Replacement & System-wide Improvements Fund (Fund 120)

The purpose of these programs is to ensure that the current water treatment and delivery systems are functioning effectively and that capital replacement and improvement needs are funded.

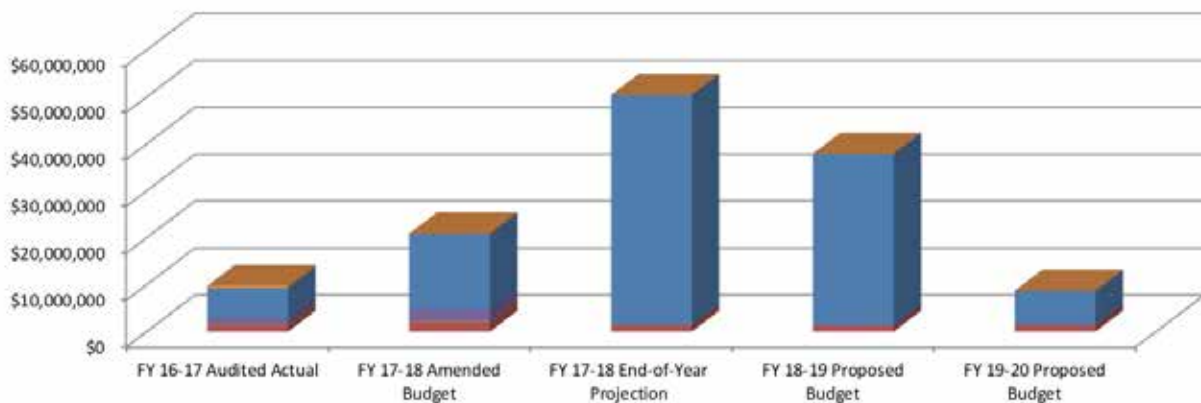
Expenses by year are shown in the following table and graph.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel**	\$1,243,481	\$2,102,573	\$1,386,318	\$1,301,306	\$1,434,263	-6%	10%
Supplies	106,026	104,908	-	-	-	0%	0%
Professional Services	1,609,787	2,544,092	-	-	-	0%	0%
Rental Services	477,732	-	-	-	-	0%	0%
Capital Projects***	6,339,192	16,129,988	49,062,248	36,655,171	7,302,173	-25%	-80%
Total	\$9,776,219	\$20,881,561	\$50,448,566	\$37,956,477	\$8,736,436	-25%	-77%

Notes:

**FY 2018-20 capital projects are budgeted in personnel and capital projects

*** The spikes in FY 2017-18 and 2018-19 are DWWTP Ozone and PPWTP Upgrades and Ozone project expenses.



Water Expansion Fund (Fund 130)

The purpose of this program is to ensure that Zone 7 is able to meet future needs for water demands. The program is primarily intended to provide funding for new facilities and water supplies for new development and to fund programs that encourage water conservation measures.

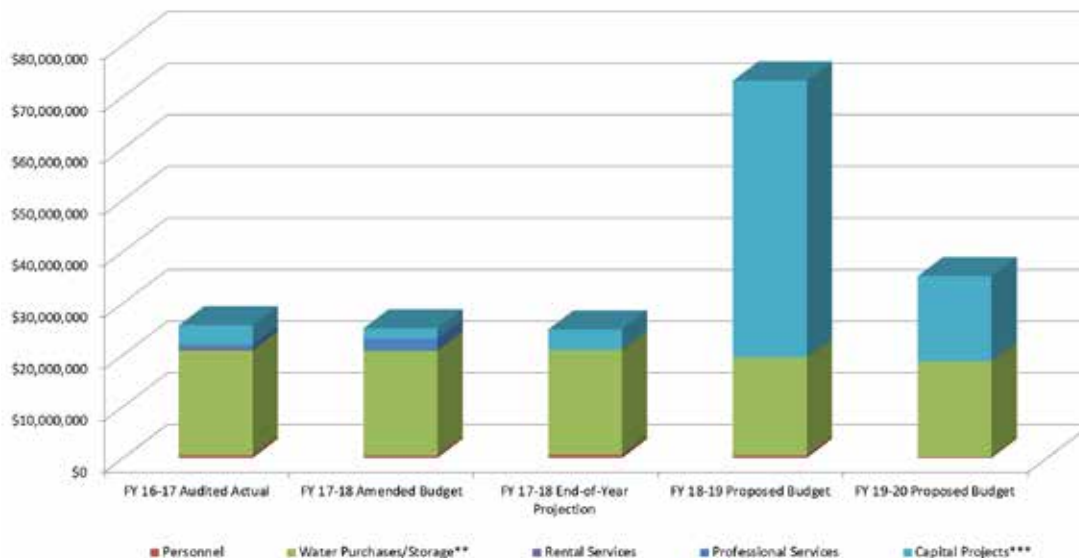
Expenses by year are shown in the following table.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel	\$472,872	\$412,616	\$579,412	\$428,723	\$259,763	-26%	-39%
Water Purchases/Storage**	20,301,567	20,354,000	20,289,862	19,049,099	18,465,669	-6%	-3%
Rental Services	371,570	-	-	-	-	0%	0%
Professional Services	733,292	2,334,394	-	-	-	0%	0%
Debt Service	-	-	-	432,034	1,090,575	0%	152%
Capital Projects***	3,794,949	2,006,318	3,996,769	\$53,594,160	\$16,466,456	1241%	-69%
Totals	\$25,674,251	\$25,107,328	\$24,866,043	\$73,504,016	\$36,282,463	196%	-51%

Notes:

**FY 2018-20 Capital projects are budgeted in personnel, water and capital projects

***Water includes non-discretionary payments for debt others incurred on behalf of Zone 7



Flood Protection Fund (Fund 200)

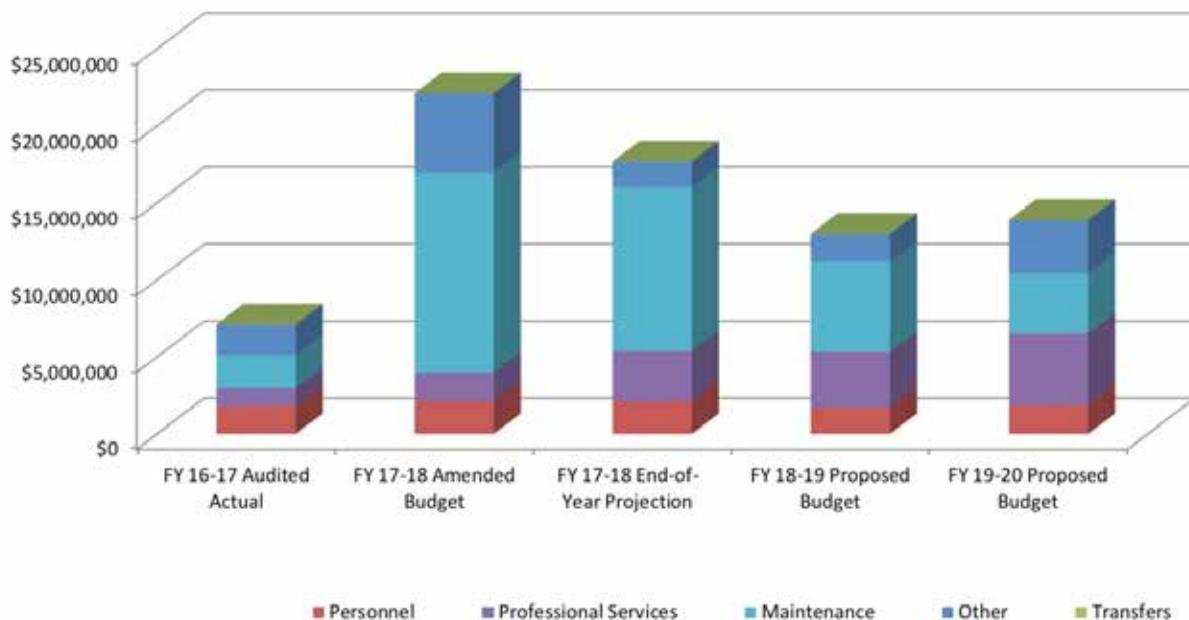
This budget unit provides the funding for flood protection services and related administration. The purpose of this program is to ensure the controlled drainage of the Valley’s excess water runoff. Zone 7 manages a watershed of nearly 425 square miles including eastern Alameda County and parts of Contra Costa, Santa Clara and San Joaquin Counties. Expenses by program are shown in the following table.

Expenses by year are shown in the following table.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel	\$1,785,156	\$2,154,199	\$2,097,833	\$1,728,983	\$1,852,750	-18%	7%
Professional Services	1,191,803	1,859,981	3,296,606	3,591,140	4,662,774	9%	30%
Maintenance	2,126,952	12,940,414	10,618,594	5,840,197	3,935,783	-45%	-33%
Other	2,012,753	5,165,495	1,674,923	1,830,802	3,442,730	9%	88%
Transfers	12,444	13,333	13,333	13,733	14,145	3%	3%
Total	\$7,129,108	\$22,133,422	\$17,701,289	\$13,004,855	\$13,908,182	-27%	7%

Notes:

- Maintenance includes increased Flood Protection emergency repair costs due to 2017 storms.



Flood Protection & Stormwater Drainage Fund (Fund 210)

On March 18, 2009, the Zone 7 Board of Directors adopted Ordinance 2009-01, which replaced the Special Drainage Area (SDA) 7-1 development impact fee previously adopted by Zone 7. The new ordinance also established the Flood Protection and Storm Water Drainage Development Impact Fee Fund (Fund 76); consequently, all funds from SDA Operations (Fund 71) and the SDA 7-1 Trust Fund (Fund 90) were transferred to Fund 76 (now Fund 210), while all of the outstanding SDA 7-1 exemption credits were liquidated.

The purpose of this program is to ensure that Zone 7 is able to meet future needs for flood control facilities related to expanded capacity. The program is primarily intended to provide funding for any flood control facilities required for new development.

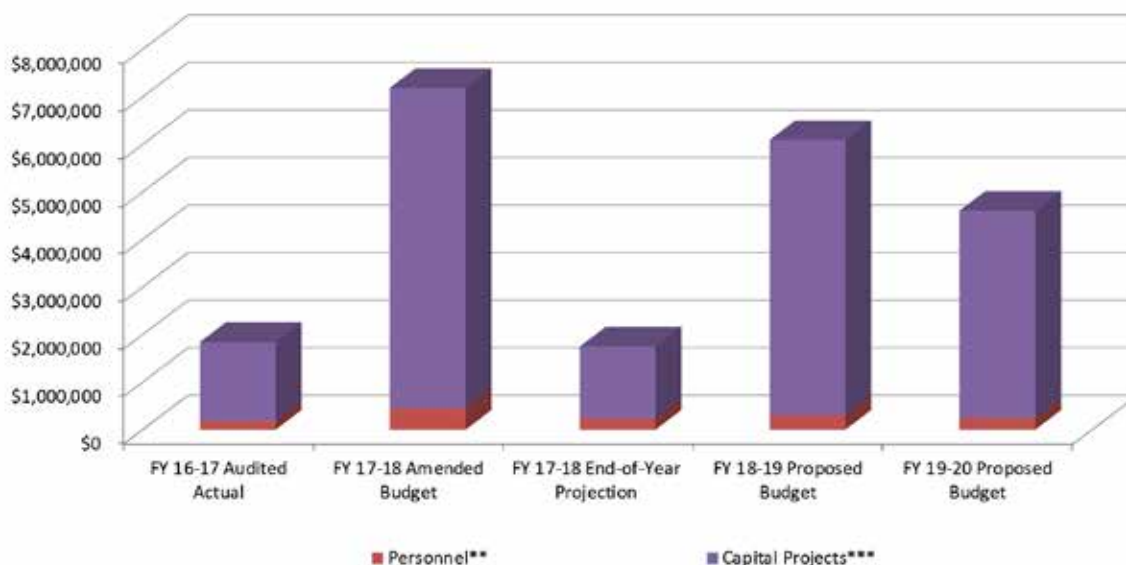
Expenses by year are shown in the following table and graph.

Category	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Personnel**	\$176,568	\$456,087	\$240,732	\$300,880	\$245,407	25%	-18%
Capital Projects***	1,664,986	6,730,204	1,503,900	5,789,651	4,358,863	285%	-25%
Total	\$1,841,554	\$7,186,291	\$1,744,632	\$6,090,531	\$4,604,270	249%	-24%

Notes:

**FY 2018-20 capital projects are budgeted in personnel and capital projects

***Capital projects include projects such as the Camp Parks Detention Basin and Arroyo Mocho Medeiros Parkway Project

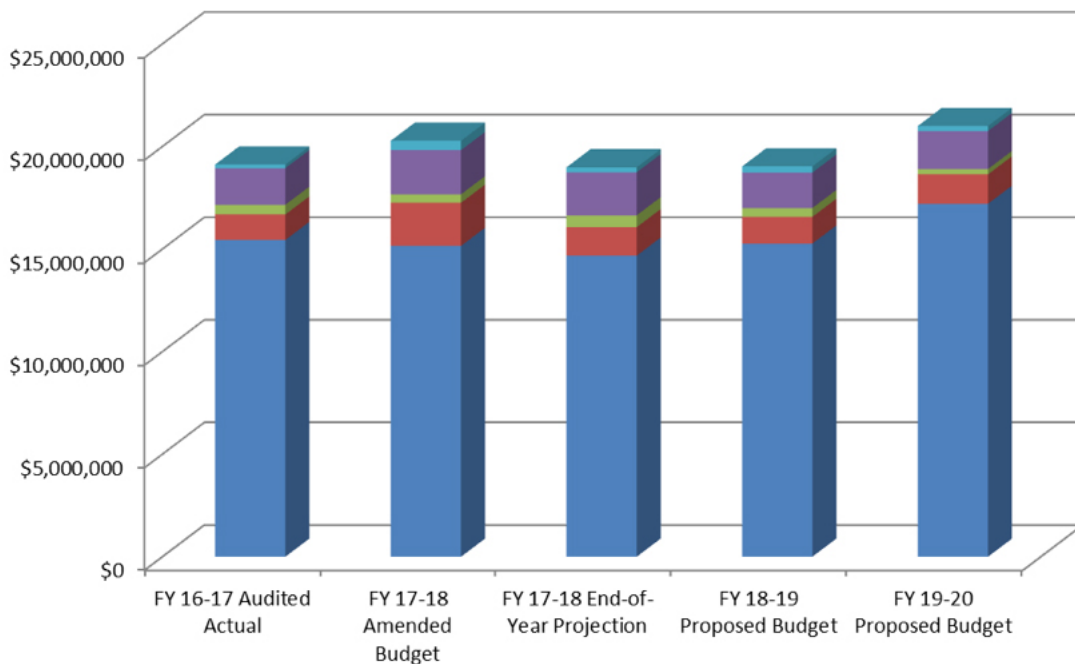


Personnel (All Funds)

The District's second largest expense is personnel costs. The personnel section describes the District's staffing, employee bargaining units and benefits. Both the salary increases and benefit costs have an impact on the budget. See further discussion and analysis on the following pages.

The District charges staff time directly to capital projects. Each section estimates the percentage of time planned for capital projects for every staff member, these personnel costs are budgeted within the individual capital project budgets. Personnel expenses are shown in the following table and graph.

Fund	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Fund 100 - Water Enterprise	\$15,441,752	\$15,153,197	\$14,677,587	\$15,266,665	\$17,206,004	4%	13%
Fund 200 - Flood Control	1,243,481	2,102,573	1,386,318	1,301,306	1,434,263	-6%	10%
Fund 120 - Water Renewal/ Replacement & System-wide Improvements	472,872	412,616	579,412	428,723	259,763	-26%	-39%
Fund 130 - Water Expansion	1,785,156	2,154,199	2,097,833	1,728,983	1,852,750	-18%	7%
Fund 210 - Flood Protection	176,568	456,087	240,732	300,880	245,407	25%	-18%
Total	\$19,119,830	\$20,278,672	\$18,981,882	\$19,026,557	\$20,998,187	0.2%	10.4%



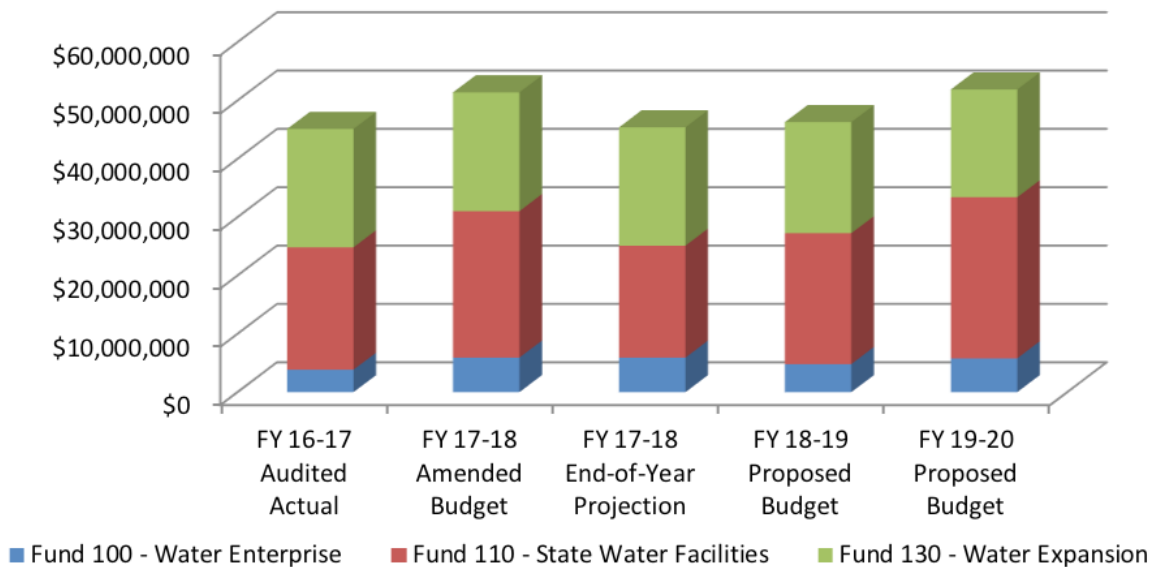
Water Purchases

Water purchases are the largest expense for Zone 7. The Agency purchases approximately 80% of its water supply from the State Water Project (SWP).

The Department of Water Resources prepares annual Statement of Charges (SOC) for the Agency. The SOC charges are split between fixed and variable charges. The SWP fixed costs are paid via property taxes (Fund 110) and connection fees (Fund 130) and the variable costs are paid via water sales (Fund 100).

Water Purchases by year are shown in the following table and graph.

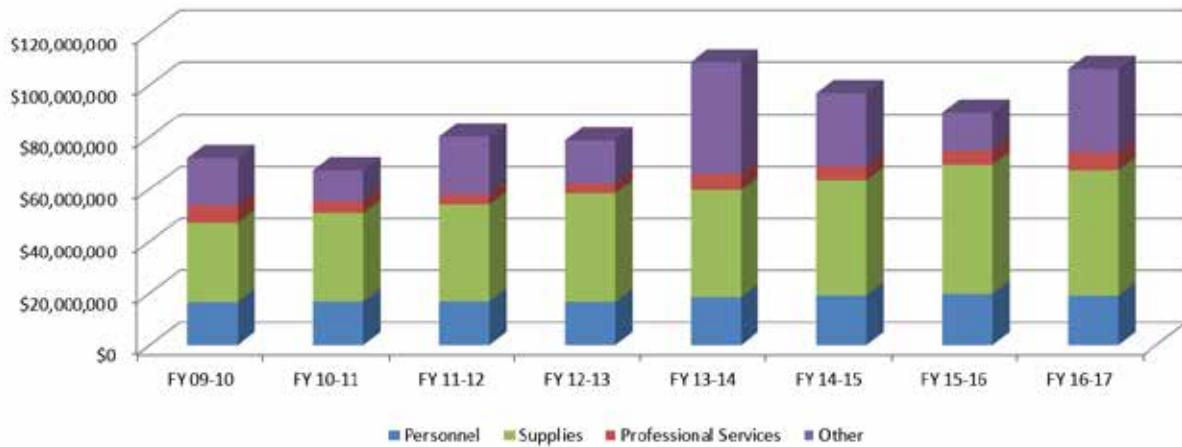
Fund	FY 16-17 Audited Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget	% Change	
						FY 18-19 vs. FY 17-18 Projections	FY 18-19 Budget vs. FY 19-20
Fund 100 - Water Enterprise	\$3,855,427	\$5,941,300	\$5,925,788	\$4,825,802	\$5,804,364	-19%	20%
Fund 110 - State Water Facilities	20,985,604	25,109,685	19,203,854	22,435,644	27,628,997	17%	23%
Fund 130 - Water Expansion	20,301,567	20,354,000	20,289,862	19,049,099	18,465,669	-6%	-3%
Total	\$45,142,598	\$51,404,985	\$45,419,504	\$46,310,545	\$51,899,030	2%	12%



Expense History

The following table and graph shows an eight-year history by major expense category based on audited actuals.

Category	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Personnel	\$16,661,572	\$16,862,669	\$16,934,133	\$16,744,604	\$18,546,131	\$19,232,704	\$19,765,371	\$19,119,830
Supplies	30,439,731	34,010,187	37,114,680	41,532,896	41,121,385	44,334,450	49,657,729	48,280,830
Professional Services	6,718,389	4,470,064	3,923,871	4,190,699	6,342,039	5,298,707	5,318,930	6,924,126
Other	18,166,744	12,050,360	22,188,938	16,295,156	42,674,910	28,105,095	14,815,842	31,853,145
Total	\$71,986,437	\$67,393,279	\$80,161,622	\$78,763,354	\$108,684,464	\$96,970,956	\$89,557,871	\$106,177,931





WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

CAPITAL IMPROVEMENT PLAN

CAPITAL IMPROVEMENT PROGRAM

Approximately every other year, Zone 7 Water Agency (Zone 7) prepares a Capital Improvement Program (CIP) document, which outlines the plans for capital projects and programs needed to carry out the goals and policy objectives of the agency. The CIP incorporates the projects, costs, schedules, and priorities for five years of Flood Protection projects and ten years Water Enterprise projects. In the years when the CIP is not updated, adjustments are made as part of the budget process.

Zone 7 has undertaken many planning efforts, for example the Asset Management Program (AMP) Update, Stream Management Master Plan (SMMP), Well Master Plan (WMP), and the 2010 Urban Water Management Plan (UWMP). Collectively, these studies have identified:

- The types of renewal/ replacement and system-wide improvement projects needed to maintain a reliable and efficient water system;
- Current and projected demands on our water system and Zone 7's facilities needed to meet such demands;
- Operational improvements and additional studies that will minimize near-term risks of water supply shortages and maximize long-term flexibility; and
- Integrated resource management projects for Zone 7's flood protection facilities.

These master plans provide a roadmap for the scope and scheduling of projects in the CIP.



WATER SYSTEM CIP OVERVIEW

A primary function of the CIP is to provide Zone 7's Executive Staff and Board with a clear and orderly process for planning and budgeting for capital needs and for making informed decisions with regard to project priorities and scheduling.

Various capital projects and programs are needed to ensure a reliable and high quality water supply in accordance with the mission, goals and policy objectives established by the Board. These projects anticipate the need to renew, replace and improve existing infrastructure to maintain system reliability (paid from Fund 120, Renewal/Replacement and System-Wide Improvements) and to construct new facilities needed to accommodate future growth (Fund 130, Expansion).



FLOOD PROTECTION CIP OVERVIEW

Zone 7 plans and designs flood protection and stormwater drainage facilities that enhance management and control of stormwater runoff and drainage in the Livermore-Amador Valley, while optimizing water resources by integrating water supply, water quality, flood protection and environmental stewardship.

The agency conducts capital improvement activities that protect life and property from damage caused by stormwater runoff and drainage generated during large rainfall events.



Zone 7's capital improvements include renewal/replacement and repair of existing facilities to maintain the integrity of the existing flood protection system, system-wide improvements that integrate local stormwater channels into one regional water resource management system, and develop capital projects to accommodate new impervious surface areas caused by new development.

The following pages list the FY 2019 and FY 2020 capital projects by fund.

Capital Improvement Plan (CIP)

WATER ENTERPRISE

Capital Projects Listing

Fund 120 – Renewal/Replacement & System-wide Improvements

FY 18-20 Budget - Fund 120 Capital Project List

Fund 120	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
PPWTP Ozonation Project	\$17,105,048	\$391,724
PPWTP Upgrades	14,181,679	312,962
COL 1 Yard and Slope Stabilization	3,375,000	
Contingency	750,000	750,000
SCADA Upgrades and Replacements	470,000	490,000
Minor Renewal/Replacement Projects	420,000	470,000
Distribution System Assets Renewal/Replacement	280,000	290,000
Chain of Lakes Facilities and Improvements - Water Supply	280,000	-
Monitoring Well Replacements & Abandonments	250,000	230,000
Arroyo Del Valle Permit Extension	186,000	130,000
Laboratory Equipment Replacement	140,000	140,000
DVWTP HVAC Replacement	100,000	570,000
Chain of Lakes - Cope Lake to DVWTP Pipeline	90,000	300,000
MGDP Concentrate Discharge Pipeline Inspection and Cleaning	80,000	1,130,000
Asset Management Program Management	60,000	60,000
North Canyons Renewal/Replacement and Improvements	50,000	50,000
DVWTP Polymer Mixing System Replacement	50,000	-
Dougherty Reservoir Recoating	50,000	2,150,000
Chain of Lakes Master Planning	18,750	21,750
Capital Improvement Program Management	10,000	30,000
MGDP RO Membrane Replacement	10,000	780,000
PPWTP Solar Panels Installation	-	100,000
Stream Gauge Replacement	-	280,000
System-Wide Installation of Line Valves	-	60,000
Total	\$37,956,478	\$8,736,437

Capital Improvement Plan (CIP)

WATER ENTERPRISE

Capital Projects Listing Fund 130 – Expansion

FY 18-20 Budget - Fund 130 Capital Project List

Fund 130	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
PPWTP Upgrades Project	\$33,090,585	\$730,245
PPWTP Ozonation Project	17,105,048	391,724
South Bay Aqueduct Enlargement Project	15,999,100	15,425,669
Fourth Contractor's Share of the SBA - Capital Costs	3,000,000	3,000,000
Busch-Valley Well 1	1,670,000	8,690,000
Chain of Lakes Facilities and Improvements - Water Supply	660,000	-
Water Supply Planning and Projects	540,000	4,650,000
Contingency	500,000	500,000
Cawelo Groundwater Banking Program	432,033	1,090,575
Chain of Lakes - Cope Lake to DWTP Pipeline	210,000	700,000
Arroyo Mocho Low Flow Crossings	150,000	370,000
SWP Peaking Payment (Lost Hills & Belridge Water Districts)	50,000	40,000
Chain of Lakes Master Planning	43,750	50,750
Capital Improvement Program Management	40,000	100,000
Efficient Washer Rebate Program	7,400	7,400
Water Conservation General	6,100	6,100
Arroyo Mocho Diversion Facility Coordination & Implementation	-	530,000
Total	\$73,504,017	\$36,282,464

Capital Improvement Plan (CIP)

FLOOD PROTECTION

Capital Projects Listing

Fund 200 – General Fund/Flood Control

FY 18-20 Budget - Fund 200 Capital Project List

Fund 200	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Arroyo Mocho Medeiros Parkway Project	\$1,653,565	\$1,653,565
Preparing for the Storm Grant Project - Castlewood	181,274	173,868
Flood Control Asset Management	175,000	-
Stream Management Master Plan Financing Strategy	88,500	59,000
El Charro Phase 2 - Upper Reach	86,000	43,000
Preparing for the Storm Grant Project- Concannon	77,948	725,865
Mitigation Strategy - Banking	59,000	59,000
Upstream Flood Attenuation	43,000	43,000
Flood Control Hydrologic and Hydraulic Model Improvements and Upgrades	29,500	29,500
Chain of Lakes Master Planning	27,500	31,900
Arroyo Mocho Hagemann Project	-	166,000
Flood Control Corporation Yard	-	590,000
Material Storage	-	590,000
Total	\$2,421,287	\$4,164,698

Capital Improvement Plan (CIP)

FLOOD PROTECTION

Capital Projects Listing

Fund 210 – Flood Protection & Stormwater Drainage DIF

FY 18-20 Budget - Fund 210 Capital Project List

Fund 210	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Camp Parks Detention Basin	\$3,010,000	-
Arroyo Mocho Medeiros Parkway Project	2,191,935	2,191,935
Contingency	250,000	250,000
Stream Gage and rain network	123,000	-
El Charro Phase 2 - Upper Reach	114,000	57,000
Preparing for the Storm Grant Project- Concannon	103,326	962,192
Stream Management Master Plan Financing Strategy	61,500	41,000
Upstream Flood Attenuation	57,000	57,000
Mitigation Strategy - Banking	91,000	91,000
Chain of Lakes Master Planning	35,000	40,600
Flood Control Hydrologic and Hydraulic Model Improvements and Upgrades	20,500	20,500
Other Professional Services	10,519	10,835
Sediment Study	10,250	10,250
Flow Studies – Steelhead Restoration	10,000	10,000
Eastern Alameda County Conservation Strategy	2,500	7,957
Arroyo Mocho Hagemann Project	-	34,000
Flood Control Corporation Yard	-	410,000
Material Storage	-	410,000
Total	\$6,090,530	\$4,604,269



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DEPARTMENT OVERVIEW

Personnel

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Office of the General Manager	7.00	8.00	9.00	9.00	9.00	10.00	1.00
Finance	9.00	10.00	10.00	10.00	10.00	11.00	1.00
Employee Services	7.00	7.00	4.00	4.00	3.00	3.00	0.00
Water Quality	7.50	7.50	7.50	7.50	7.50	7.50	0.00
Integrated Planning	7.50	8.50	9.50	9.50	7.50	8.50	1.00
Facilities Engineering	14.00	12.00	13.00	13.00	11.00	12.00	1.00
Groundwater	7.00	8.50	7.50	7.50	7.50	7.50	0.00
Operations	24.00	24.00	27.00	27.00	28.00	29.00	1.00
Maintenance	19.00	20.00	20.00	20.00	18.00	19.00	-2.00
Flood Protection	5.00	6.00	7.00	7.00	7.00	7.00	0.00
Agency Total	107.00	111.50	114.50	114.50	108.50	114.50	6.00

Employee Bargaining Units

The Agency has four bargaining units. Below is a listing of each unit:

Alameda County Management Employees' Association (ACMEA)

- Memorandum of Understanding (MOU) end date: June 25, 2022
- Zone 7 salary contract end date: June 29, 2019
- COLA adjustment of 3% on July 3, 2016, 2% on July 2, 2017, and 2% on July 1, 2018. Negotiations will start in 2019.

International Federation of Professional and Technical Engineers (IFPTE), Local 21

- Memorandum of Understanding (MOU) end date: June 3, 2017. Negotiations are in process.
- Zone 7 salary contract end date: June 29, 2019
- COLA adjustment of 2% on July 2, 2017 and 2% on July 1, 2018. Negotiations will start in 2019.

Service Employees International Union (SEIU), Local 1021

- Memorandum of Understanding (MOU) end date: December 14, 2019
- Zone 7 salary contract end date: June 29, 2019
- COLA adjustment of 3% on April 23, 2017, 2% on July 2, 2018, and 2% on July 1, 2018. Negotiations will start in 2019.

Alameda County Building and Construction Trades Council (ACBCTC)

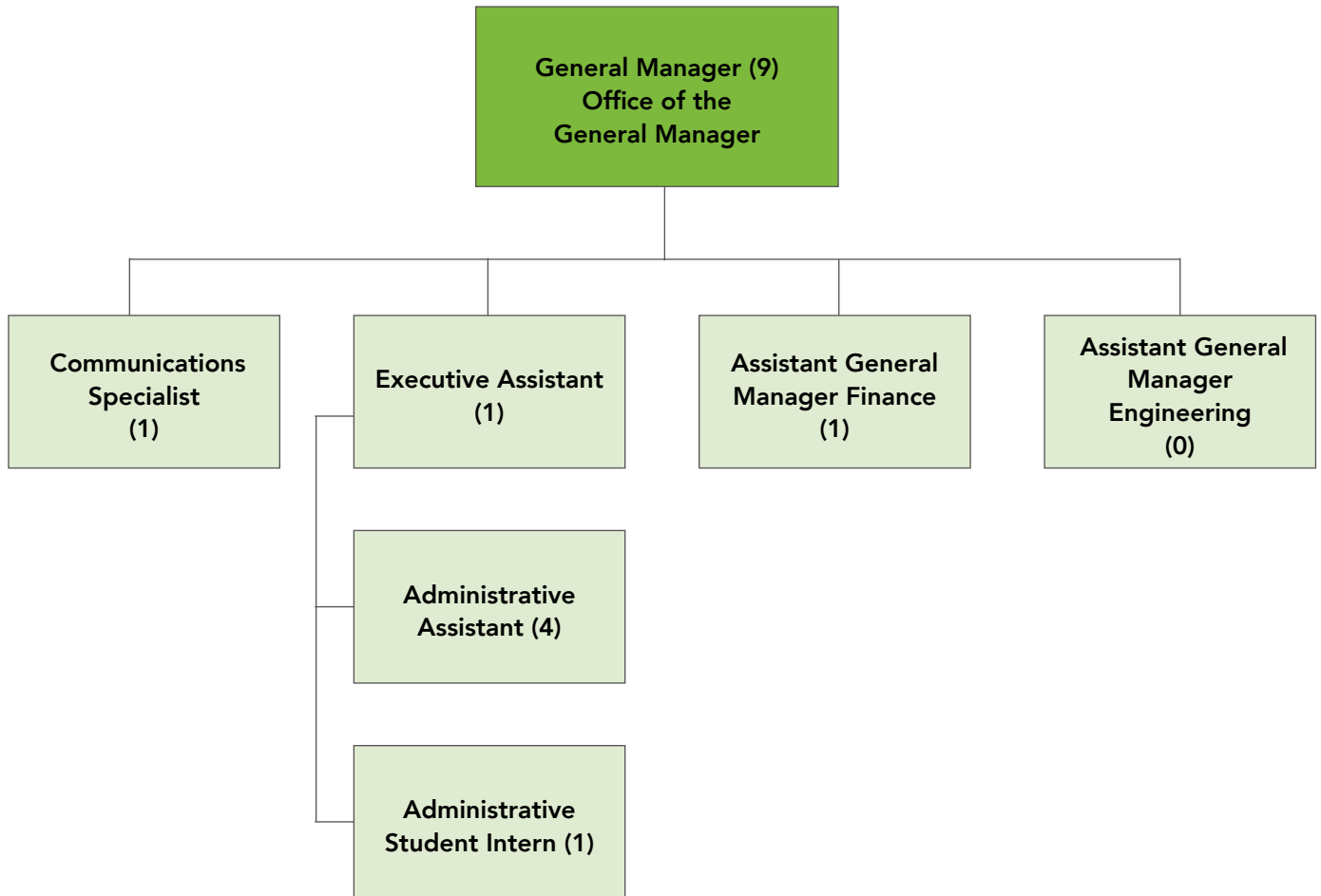
- Memorandum of Understanding (MOU) end date: July 28, 2018. Negotiations are in process.
- Zone 7 salary contract end date: June 29, 2019
- COLA adjustment of 3% on August 28, 2016, 2% on July 2, 2017, and 2% on July 1, 2018. Negotiations will start in 2019.

Unrepresented Employees follow the Alameda County Administrative Code.

The General Manager is an at-will contract employee of the Agency.

The Board reviews all new position requests, authorizes total "full time equivalent" (FTE) positions and approves salary ranges after the General Manager negotiates with the appropriate union bargaining units.

Office of the General Manager FY 2018-19



* Positions with (0) FTE are soft hiring freeze positions in FY 2018-19 only.

Office of the General Manager

The Office of the General Manager provides overall administrative and management support to the Agency.

FY 2018-20 GOALS AND OBJECTIVES

- Continue to enhance communications, public outreach and community engagement.
- Continue to enhance workforce engagement and development.
- Facilitate a successful process for the adoption of the SMMP through proactive communication with the public, stakeholders and the board.
- Facilitate a process to review and update the WSE and advance one or more options to increase water supply reliability and diversity.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Purchased Administrative Office building to save over \$1 million per year in lease payments and over \$3M in purchase cost by purchasing the building instead of waiting till the end of lease agreement in 2020.
- Zone 7 joined the Sites Project Reservoir Committee to actively engage in the project development at a participation level of 20,000 AF.
- Zone 7 also remained actively engaged in the development of the California WaterFix. In September 2017, the Board adopted a resolution of support for the project and authorized providing interim funding.
- The Agency held its first annual Records Information Management Clean-up Day and filled 49 large recycling bins worth of obsolete records – that's the equivalent of approximately 470 bankers-boxes of paper.
- Upgraded website to make available Zone 7 Board resolutions from 2008 through the current year.
- Schools Program: The agency continued in the 2016-17 school year to expand its school program. Reaching nearly 14,000 students covering topics from water conservation and water quality to flood protection and storm-water-pollution prevention. The program continued to expand its high school program in health and in Advanced Placement Environmental Science.
- Continued televising monthly Board agendas, minutes and meetings via TV30.org.

OFFICE OF THE GENERAL MANAGER STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
General Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Assistant GM. Engineering	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Assistant GM. Personnel	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Assistant GM. Finance	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Executive Assistant	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Administrative Assistant	2.00	2.00	3.00	3.00	4.00	4.00	0.00
Communications Specialist	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Admin. Student Intern	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Total	7.00	8.00	9.00	9.00	9.00	10.00	1.00

Staffing Changes

1 FTE Assistant General Manager, Engineering is a soft hiring freeze position for FY 2018-19 only.

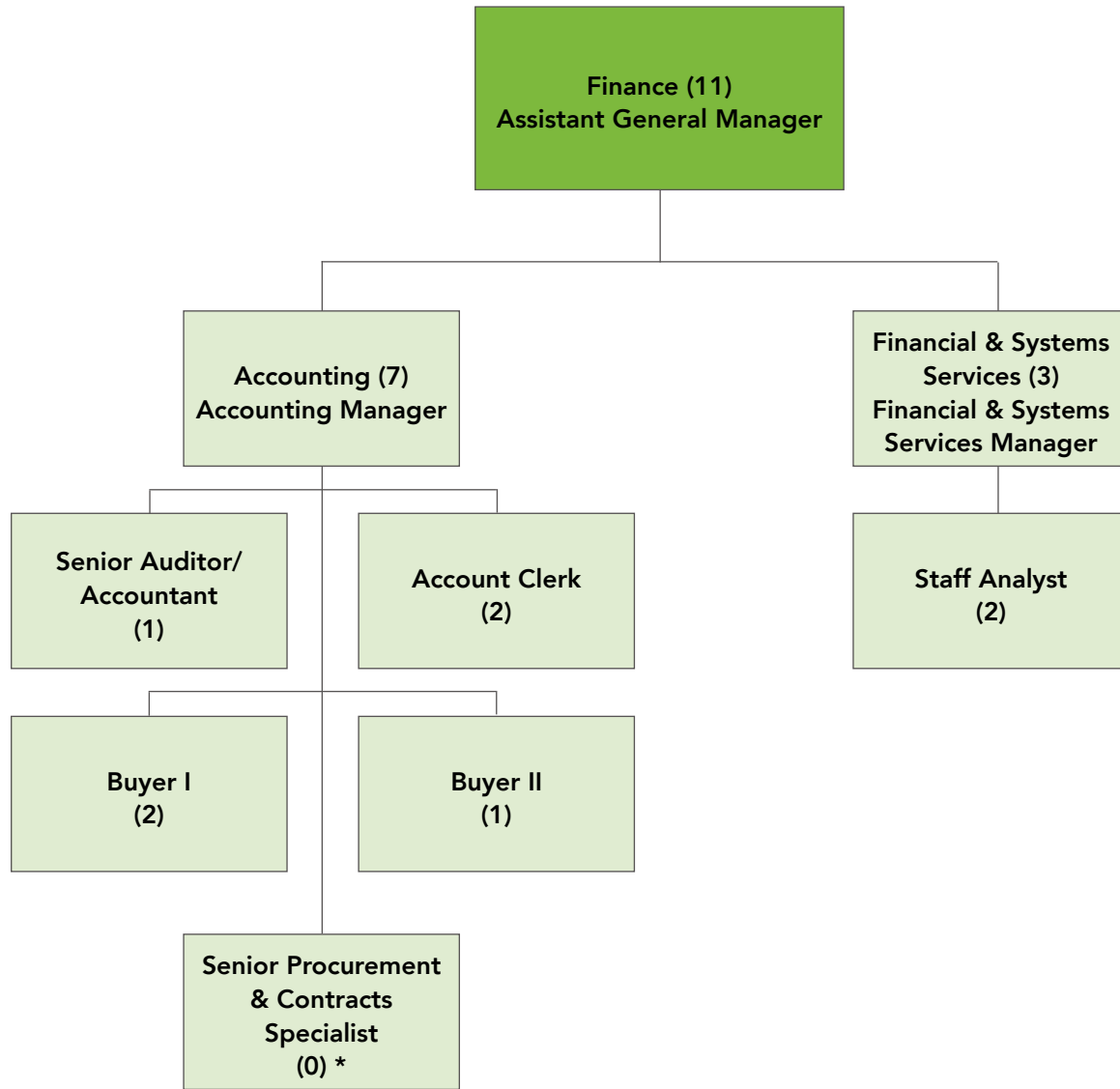
OFFICE OF THE GENERAL MANAGER BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	16,096,297	17,156,003	18,496,100	17,134,025	20,730,259
Fund 110 - State Water Facilities	-	99,000	-	112,000	120,000
Fund 120 - Water Renewal/Replacement & Systemwide Improvements	4,550,658	854,908	369,023	750,000	750,000
Fund 130 - Capital Expansion	3,542,769	20,291,304	21,451	932,034	1,590,575
Fund 200 - Flood Control	1,668,011	718,014	416,741	-	768,693
Fund 210 - Flood Protection & Stormwater Drainage	1,010,788	250,000	-	250,000	-
Total	\$26,868,523	\$39,369,229	\$19,303,315	\$19,178,059	\$23,959,527

OFFICE OF THE GENERAL MANAGER BUDGET BY PROGRAM

Program	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	18,239,585	13,897,430	12,398,454	14,897,271	17,459,674
Supply Source & Conveyance	14,563	18,588,985	25,713	210,866	221,832
Water Storage	39,768	1,310,600	318	48,767	21,855
Water Treatment	211,206	-	132,806	-	-
Water Transmission	30,440	-	-	-	-
Central Administration	5,654,162	3,246,896	6,329,284	2,521,155	4,237,473
Flood Protection	2,678,799	718,014	416,741	-	768,693
Capital Projects	-	1,607,304	-	1,500,000	1,250,000
Total	\$26,868,523	\$39,369,229	\$19,303,315	\$19,178,059	\$23,959,527

Finance FY 2018-19



* Positions with (0) FTE are soft hiring freeze positions in FY 2018-19 only.

Finance

Provides governmental and enterprise accounting; accounts payable; billing for services and receivables; contract monitoring; payroll; Agency-wide internal controls; financial reporting; financial forecasting and analysis; budget development, monitoring and control; purchasing services; information technology/GIS services; and risk management liaison.

FY 2018-20 GOALS AND OBJECTIVES

- Complete a four-year Wholesale Water Rate Services Study
- Implement Governmental Accounting Standards Board (GASB) Statement NO. 75 – Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions
- Complete the Marks-Roos Local Bonds (Livermore Valley Water Financing Authority Water Revenue Bonds, 2018 Series A) Yearly Fiscal Status Report to the California Debt & Investment Advisory Commission (CDIAC)
- Continue implementing strategies for financial sustainability
- Safeguard the Agency's financial and material assets by maintaining strong internal controls, ensuring equity and transparency in transactions processes, adhering to established financial policies and procedures, and complying with all legal fiscal reporting requirements

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Received the Government Finance Officers Association of the United States and Canada (GFOA) Distinguished Budget Presentation Award for the fourth straight year.
- Awarded the CSMFO Operating Budget Excellence Award for the fourth straight year.
- Awarded the GFOA Certificate of Excellence in Financial Reporting CAFR for Fiscal Year ending June 30, 2017 for the third straight year.
- Formed the Livermore Valley Water Financing Authority and issued 2018 Series A Bonds to finance the construction of ozone facilities at the Del Valle and Patterson Pass water treatment plants.
- Produced timely and accurate quarterly revenue and expenditure analysis reports.
- Restructured treated water rates to include 35% fixed and 65% volume-based components.
- Adopted policies governing the investment of Agency funds, administration of debt and procurement practices.

FINANCE STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Financial & Systems Services Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Accounting Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Auditor/Accountant	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Staff Analyst	1.00	2.00	2.00	2.00	2.00	2.00	0.00
Senior Procurement & Contracts Specialist	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Buyer I	0.00	1.00	1.00	1.00	2.00	2.00	0.00
Buyer II	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Account Clerk	3.00	2.00	2.00	2.00	2.00	2.00	0.00
Total	9.00	10.00	10.00	10.00	10.00	11.00	1.00

Staffing Changes

1 FTE Senior Procurement & Contracts Specialist is a soft hiring freeze position for FY 2018-19 only.

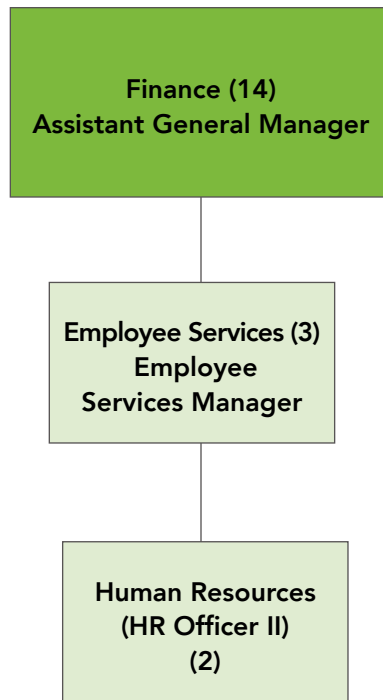
FINANCE BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	1,698,874	1,859,933	1,548,220	1,931,244	1,954,681
Fund 120 - Water Renewal/Replacement & Systemwide Improvements	2,650	31,337	5,496	10,000	37,047
Fund 130 - Water Expansion	19,980	88,108	21,613	40,000	107,069
Fund 200 - Flood Protection	398	4,308	824	-	7,145
Fund 210 - Flood Protection & Stormwater Drainage	\$265.03	\$8,765.00	\$549.60	\$0.00	\$7,047.00
Total	\$1,722,167	\$1,992,451	\$1,576,702	\$1,981,244	\$2,112,989

FINANCE BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	61,494	154,171	41,586	178,810	165,842
Supply Source & Conveyance	29,745	93,617	35,678	70,446	71,701
Water Treatment	900	-	-	-	-
Central Administration	1,629,365	1,621,374	1,498,064	1,681,988	1,731,254
Flood Protection	663	8,639	1,374	-	14,192
Capital Projects	-	114,650	-	50,000	130,000
Total	\$1,722,167	\$1,992,451	\$1,576,702	\$1,981,244	\$2,112,989

Employee Services FY 2018-19



Employee Services

Provides recruitment and selection; classification and compensation; labor relations and contract negotiations; employee relations and counseling; employee benefits coordination; workers' compensation; Equal Employment Opportunity services; and provides Agency training for the areas listed above.

FY 2018-20 GOALS AND OBJECTIVES

Ensure availability of staff recruitment resources:

- Develop an improved system for proactive management and planning of human resources that will allow the agency and its employees to be better prepared to meet the agency's future requirements in ensuring effective delivery of services to the public.
- Negotiate fiscally reasonable salaries for employees.

Plan for the future:

- Enhance business relationships with our labor organizations through the salary negotiation process, utilizing interest-based bargaining. Initiate new employee onboarding processes utilizing new electronic system.
- Develop comprehensive succession plan.

Provide leadership development training:

- Support the Agency succession planning efforts by providing managers and supervisors training and development opportunity to assure they have the capacity to successfully manage people, ensure continuity of leadership, and sustain a learning environment that drives a continuous improvement in performance.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Improved human resources selection processes through nine external recruitment and four promotional recruitment opportunities. Utilized behavioral interviewing techniques which are generally believed to be more objective and to more accurately predict future on-the-job behaviors of candidates interviewed
- Provided on-site training to all employees and Supervisors regarding Workplace Harassment Prevention, including new California AB 2053 requirement regarding abusive conduct
- Expanded involvement with Bay Area Water/Wastewater Workforce Development (BAYWORK) through candidate development and staff preparedness activities. In collaboration with local retail agencies and other East Bay Water and Wastewater agencies, conducted outreach at multiple Career Fairs and opportunities to students to learn about jobs within our industry.

EMPLOYEE SERVICES STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Employee Services Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Human Resources Officer II	1.00	2.00	2.00	2.00	2.00	2.00	0.00
Staff Analyst	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Communications Specialist	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Safety Technician II	2.00	2.00	0.00	0.00	0.00	0.00	0.00
Employee Services Technician	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Personnel Technician	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Office Assistant	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Total	7.00	7.00	4.00	4.00	3.00	3.00	0.00

Staffing Changes

1 FTE Office Assistant moved to Office of the General Manager.

EMPLOYEE SERVICES BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	631,693	791,642	505,579	744,123	759,282
Total	\$631,693	\$791,642	\$505,579	\$744,123	\$759,282

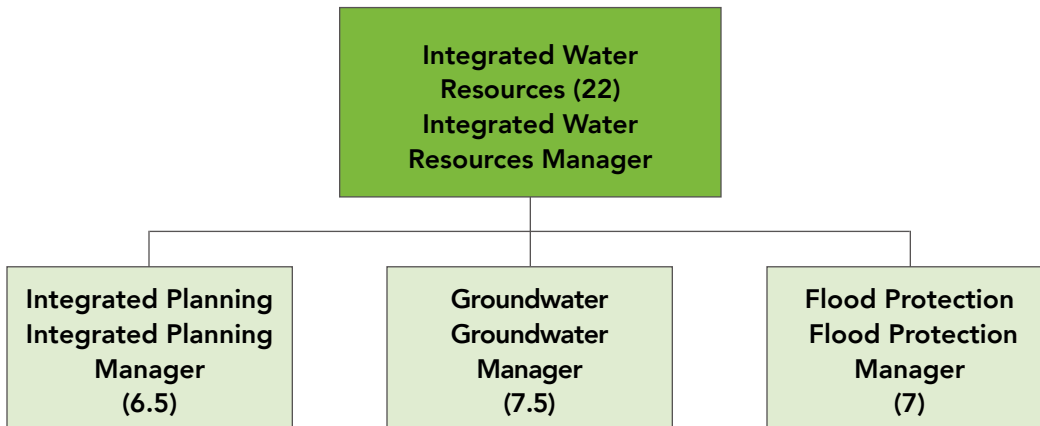
Note:

Majority of costs are labor transfers to other sections which result in an apparent reduction here and increases in the other sections. The overall net is the same except any addition added by inflation.

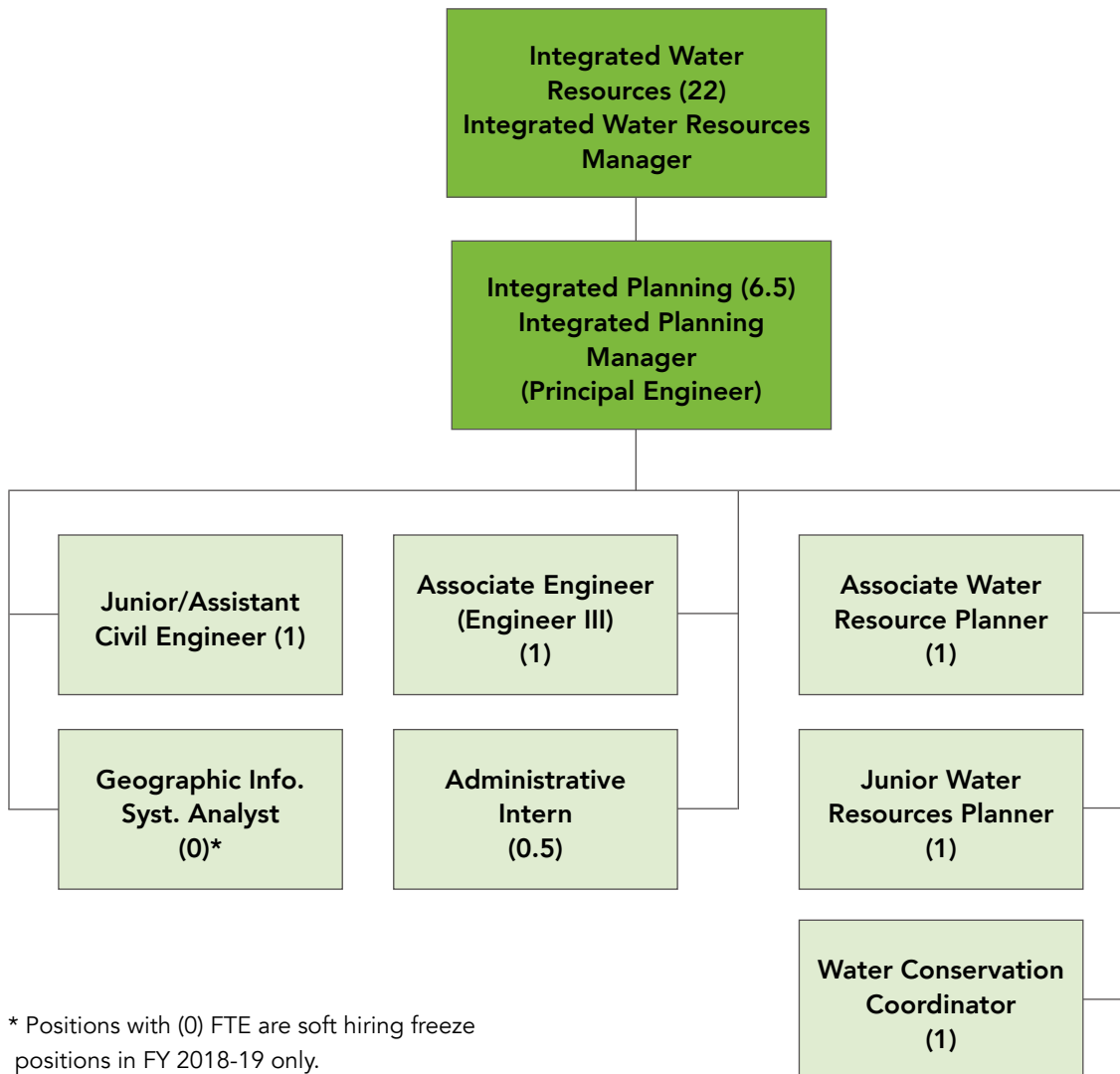
EMPLOYEE SERVICES BUDGET BY PROGRAM

Program	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Central Administration	631,693	791,642	505,579	744,123	759,282
Total	\$631,693	\$791,642	\$505,579	\$744,123	\$759,282

Integrated Water Resources FY 2018-19



Integrated Planning



* Positions with (0) FTE are soft hiring freeze positions in FY 2018-19 only.

Integrated Planning

Integrates planning efforts for water supply/quality, water conservation, flood protection, stream management, sustainable groundwater management, watershed protection, and environmental planning activities. Supports other divisions in design review, permitting, project evaluation, and overall program goals. In addition, the group seeks and supports grant efforts to fund Zone 7 programs and projects. Represents the agency to outside organizations and committees.

FY 2018-20 GOALS AND OBJECTIVES

General

- Continue to represent Zone 7 and collaborate internally and with outside organizations to advance the mission of the agency and support multi-benefit planning efforts.
- Continue to support public involvement and education on water, flood, and watershed issues through efforts such as Living Arroyos.
- Continue to explore grant opportunities.

Water supply

- Develop regional demand forecasts and update based on upcoming regulations.
- Continue to engage at the State level to support implementation of California WaterFix.
- Continue to evaluate other water supply alternatives for the Tri-Valley such as Sites Reservoir, Los Vaqueros Expansion, potable reuse, and desalination.
- Continue to engage with the retailers and other Bay Area water agencies to enhance regional reliability.
- Enhance public understanding of source water supply and quality and the importance of water conservation.

Flood protection

- Develop the Ten-Year Flood System Capital Improvement Program.
- Create the Flood System Asset Management Plan.
- Develop long-term maintenance strategies and procure a multi-year maintenance permit.
- Continue to consider potential development agreements for the construction of flood protection facilities.
- Continue to represent Alameda County and the Eastern Subregion to the Integrated Regional Water Management group (IRWM) and the Bay Area Flood Protection Agencies Association (BAFPAA).

Watershed protection and other environmental efforts

- Continue to enhance public understanding and appreciation of the local watershed.
- Continue to provide support to other Zone 7 departments on planning, environmental, and permitting efforts.
- Complete CEQA efforts associated with facility construction and other planning efforts.
- Continue to engage with regulators, consultants, local government, landowners, and other stakeholders on natural resource planning within Alameda County and the Alameda Creek Watershed.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Provided presentations regarding Zone 7's Drought Emergency Action Plan to various Councils, Boards, untreated water customers and other public meetings.
- Worked with other Bay Area water agencies to complete the Bay Area Regional Reliability Drought Contingency Plan with grant funding from the US Bureau of Reclamation, and secured additional grant funding to develop a Regional Water Market Program.
- Completed a joint study on the technical feasibility of potable reuse in the Tri-Valley with the retailers.
- Invested in Sites Reservoir planning efforts and became a member of the Sites Reservoir Committee, supporting the application for Proposition 1 funding from the California Water Commission with estimated eligible funding at about \$1B.
- Invested in Los Vaqueros Expansion planning efforts with estimated eligible funding from the California Water Commission at about \$500M.
- Completed an update of Zone 7's M&I Connection Fee Program.
- Completed the update of the Ten-Year Water System Capital Improvement Program.
- Saved 55 acre-feet over the past two years through conservations programs targeting indoor and outdoor programs
- Completed Professional Certification Qualified Water Efficient Training resulting in 24 certified professionals.
- Completed the Ecological Baseline efforts for the SMMP Amendment including several biological studies, natural resource analyses, and reporting.
- Completed CEQA and environmental permitting for various engineering projects including the Del Valle Water Treatment Plant Ozonation Project, and multiple bank repair and channel enhancement projects.
- Awarded \$1.31 million in grant funding from the U.S. EPA Water Quality Improvement Fund for "Preparing for the Storm" – a partnership with consultants and several local public and private landowners. The grant funds will support several technical studies, both Valley-wide and reach-scale; three construction projects; and, facilitate conversations and planning with the cities to improve water quality and flood risk reduction.
- Secured grant funding for water conservation through Round 3 of Proposition 84
- Received grant funding for up to \$3.3 million for Emergency Drought Projects and water conservation through Round 3 – Drought of Proposition 84
- Completed biological studies, initiated hydrologic modeling, and met with protestors and regulators to address concerns and protests on the Arroyo Valle Water Right Petition for Extension of Time. Secured the dismissal of one protest from ACWD.
- Helped Zone 7 achieve \$300,000 in reduced energy costs by participating in PWRPA. An additional \$35,000 was saved by participating in PG&E's Peak Day Pricing and \$26,000 through net metering with DWWTP solar power system.
- Continued administrative oversight and participation in the Living Arroyos Program including stream enhancement activities for Program Partners, public outreach and engagement through presentations and twice-monthly volunteer workdays.

WORKLOAD MEASURES

Fund	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Water conservation rebates	2,891	3,100	1,500	800	600	500	370
CEQA Documentation for Z-7 projects	20	12	10	12	6	6	6
Main Basin artificial recharge (AF)	6,800	2,300	4,600	9,400	9,000	5,000	6,000
Water from banking programs (AF)	1,900	19,200	7,800	0	0	0	5,000

INTEGRATED PLANNING STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Mgr. of Intgd. Water Res.	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Sr. Engineer/Geologist	2.00	1.00	1.00	1.00	0.00	0.00	0.00
Principal Eng. /IP Mgr.			0.00	0.00	1.00	1.00	0.00
Associate Engineer (Eng. III)	2.00	3.00	1.00	1.00	1.00	1.00	0.00
Assoc. Water Res. Planner	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Jr./Assist.Civil Engineer	0.00	0.00	2.00	2.00	1.00	1.00	0.00
Geograph. Info. Sys. Anlst.	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Jr. Water Res. Planner	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Cons. Coordinator	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Admin. Student Intern	0.50	0.50	0.50	0.50	0.50	0.50	0.00
Total	7.50	8.50	9.50	9.50	7.50	8.50	1.00

Staffing Changes

1 FTE Geographic Information Systems Analyst to soft hiring freeze for FY 2018-19 only. 1 FTE Junior / Assistant Civil Engineer funding transferred.

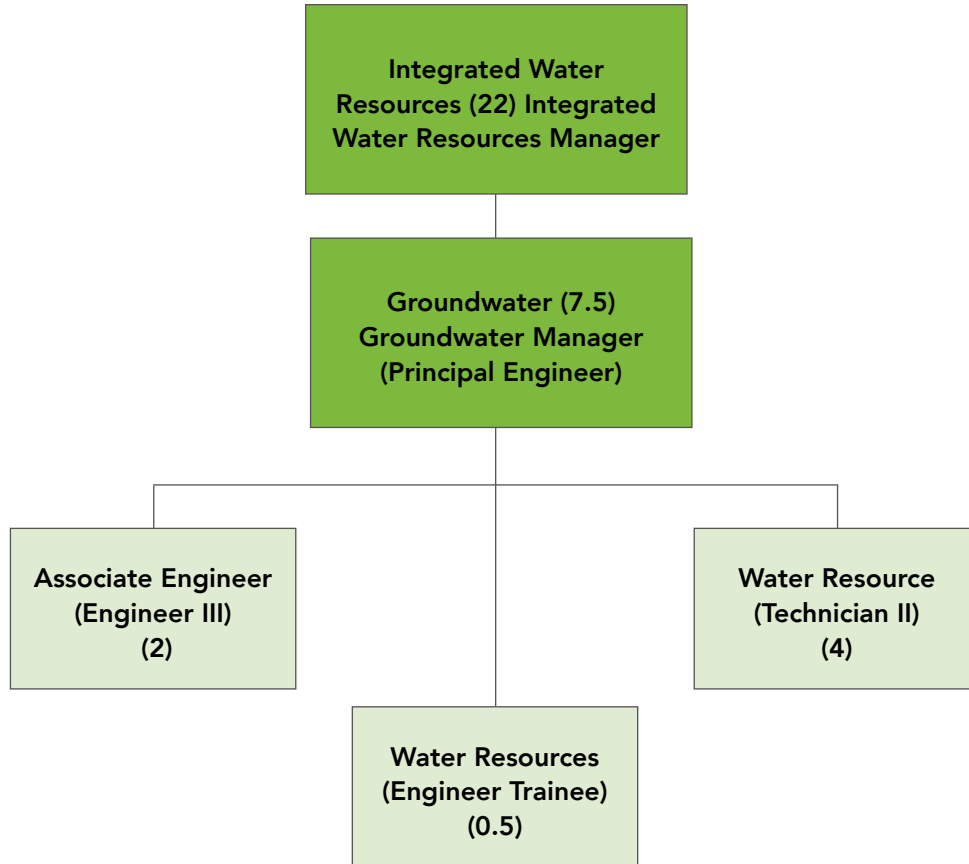
INTEGRATED PLANNING BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	\$5,336,009	\$7,652,733	\$6,284,265	\$6,461,630	\$7,834,100
Fund 110 - State Water Facilities	20,985,604	25,010,685	19,203,854	22,323,644	27,508,997
Fund 120 - Water Renewal/ Replacement & Systemwide Improvements	59,039	130,130	52,761	253,669	200,426
Fund 130 - Water Expansion	21,507,998	2,012,658	23,868,600	19,792,992	23,733,139
Fund 200 - Flood Protection	633,570	4,092,429	537,237	678,203	487,951
Fund 210 - Flood Protection & Stormwater Drainage	425,390	3,317,270	26,323	102,712	128,865
Total	\$48,947,609	\$42,215,905	\$49,973,039	\$49,612,850	\$59,893,478

INTEGRATED PLANNING BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	\$741,894	\$886,410	\$667,274	\$878,125	\$1,124,090
Supply Source & Conveyance	44,671,507	29,268,019	44,273,853	46,155,858	51,350,535
Water Storage	2,098,736	3,050,134	4,208,819	733,402	1,034,704
Water Treatment	6,479	84,849	15,622	0	1,132
Central Administration	363,291	357,312	243,912	262,550	370,201
Flood Protection	1,058,960	4,290,170	563,560	780,915	616,816
Capital Projects	0	4,279,011	0	802,000	5,396,000
Total	\$48,940,867	\$42,215,905	\$49,973,039	\$49,612,850	\$59,893,478

Integrated Water Resources Groundwater FY 2018-19



Groundwater

Groundwater oversees sustainable groundwater management for the Agency, develops and manages Zone 7's local water resource programs and investigations such as its groundwater, surface water and rainfall monitoring and analysis. Section staff provides well permitting and construction inspections; tracks clean-up progress of groundwater contamination sites; and monitors groundwater and surface water supplies and quality. Groundwater also assists on capital projects involving groundwater and surface water pumping, conveyance, recharge and monitoring facilities.

FY 2018-20 GOALS AND OBJECTIVES

Protect and manage the groundwater resources:

- Continue to implement and improve groundwater management programs that reduce or halt impacts to groundwater supplies and ensures sustained resource reliability.
- Verify monthly that groundwater levels have not dropped below the historic low level anywhere in the groundwater basin, and immediately report any exceedances or trends that suggest an exceedance is imminent.
- Prepare annual Groundwater Sustainability Reports with results from ongoing water resource monitoring programs and submit them to DWR for agency and public review by April 1 each year.
- Continue administering Alameda County's Water Wells Ordinance in eastern Alameda County, including collecting permit fees and conducting permit compliance inspections.
- Review all new high-flow, high-strength and non-residential onsite wastewater treatment system (OWTS) proposals ensuring that they comply with the Agency's Salt and Nutrient Plan guidelines.
- Complete a hydrostratigraphic study of the future Lakes B and J areas in order to evaluate the potential impact(s) of CEMEX's revised mining plans on the sustainability of the public's groundwater supplies.
- Reorganize and improve Groundwater Section's geologic, water resources and well record databases so that they are more compatible with the Agency's new GIS software which should lead to a more efficient retrieval and use of the data.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Officially became the exclusive Groundwater Sustainability Agency (GSA) for the Livermore Valley Groundwater Basin.
- Adopted and implemented a new Sustainable Groundwater Management Ordinance that prohibits unsustainable extractions and exportation of groundwater.
- Developed and submitted an Alternative Groundwater Sustainability Plan for the Livermore Valley Groundwater Basin to DWR as provided for by the Sustainable Groundwater Management Act (SGMA).
- Satisfied all CASGEM monitoring and reporting responsibilities for the assigned groundwater basins.
- Made 26 high flow stream measurements during the higher rain events for the purpose of re-calibrating ten stream gauges.
- Maintained an optimized artificial recharge operation that achieved the highest annual volume of water artificially recharged into the Main Basin in the last 12 years.
- Issued 152 well and soil boring drilling permits and conducted compliance inspections for nearly 70%.
- Prepared an annual Groundwater Management Program Report for Water Year 2016.

WORKLOAD MEASURES

	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Groundwater samples	162	158	177	156	174	170	170
Groundwater level measurements	1012	973	874	834	892	732	800

GROUNDWATER STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Principal Engineer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Associate Engineer (Eng. III)	1.00	1.00	1.00	1.00	2.00	2.00	0.00
Assistant Engineer (Eng. II)	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Construction Inspector	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Water Resources Tech. II	3.00	4.00	4.00	4.00	4.00	4.00	0.00
Water Resources Engineer Trainee	0.00	0.50	0.50	0.50	0.50	0.50	0.00
Total	7.00	8.50	7.50	7.50	7.50	7.50	0.00

Staffing Changes

1 FTE Construction Inspector moved to Facilities Engineering.

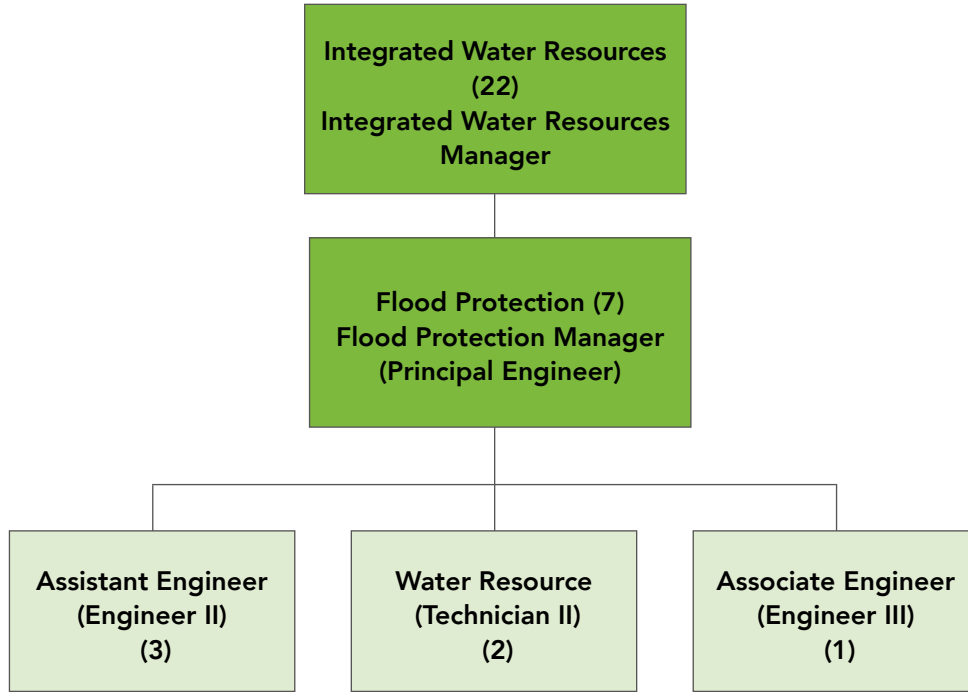
GROUNDWATER BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	1,387,237	1,451,934	1,097,337	1,244,933	1,227,611
Fund 120 - Water Renewal/ Replacement & Systemwide Improvements	3,881	157,923	756	250,000	525,153
Fund 130 - Water Expansion	14,786	14,017	6,562	4,382	11,819
Fund 200 - Flood Protection	14,665	5,687	-	-	5,585
Fund 210 - Flood Protection & Stormwater Drainage	-	-	-	-	-
Fund 210 - Flood Protection & Stormwater Drainage	425,390	3,317,270	26,323	102,712	128,865
Total	\$1,420,569	\$1,629,561	\$1,104,655	\$1,499,315	\$1,770,168

GROUNDWATER BUDGET BY PROGRAM

Program	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	-	-	-	-	-
Supply Source & Conveyance	20,042	-	4,425	-	-
Water Storage	1,382,834	1,485,762	1,098,025	1,249,315	1,254,583
Water Treatment	-	-	-	-	-
Water Transmission	1,079	-	-	-	-
Central Administration	1,948	1,953	2,205	-	-
Flood Protection	14,665	5,687	-	-	5,585
Capital Projects	-	136,159	-	250,000	510,000
Total	\$1,420,569	\$1,629,561	\$1,104,655	\$1,499,315	\$1,770,168

Integrated Water Resources Flood Protection FY 2018-19



Flood Protection

Of the 620 square miles of the Alameda Creek watershed, Zone 7 provides regional flood protection management services to approximately 425 square miles located in the upper watershed areas. Management activities include implementing the Development Impact Fee (DIF) program, and maintenance and land rights administration of approximately 37 miles of flood channels and access roads which Zone 7 currently owns; the purpose of the DIF program is to plan, design, and construct new flood protection projects to address future development's impact on the flood protection system.

FY 2018-20 GOALS AND OBJECTIVES

- Following completion of the Stream Management Master Plan (SMMP) amendment, update the Development Impact Fee (DIF) Study and Financing Strategy to determine future flood protection funding options and opportunities for projects identified in the SMMP amendment. In addition, prepare a flood protection Asset Management Program (AMP) to determine the valuation of all Zone 7 owned flood protection facilities in support of the Financing Strategy study effort.
- Complete a Flood Protection 10-year Capital Improvement Program (CIP).
- Install six new rainfall/streamflow gauges to enhance the County-wide gauge network. Implementation of gap-filling gauges in the network will enhance support of the Early Flood Warning System as well as the Emergency Action Plan, especially in extreme precipitation events from atmospheric rivers.
- Continue to develop a Stream Maintenance Program (SMP) that improves Zone 7's management and maintenance of flood protection facilities. The SMP will establish programmatic guidance to implement flood protection maintenance activities while minimizing environmental impacts. The SMP will enhance the organizational framework to oversee flood maintenance activities and ensure program compliance with regulatory permit provisions and mitigation requirements.
- Continue to plan, design and construct repair projects for the 200+ damages that were documented after the 2017 storm events, with a preliminary estimated cost of \$44 million. Continue to engage in discussions with all applicable federal and state agencies to actively pursue grant funding to support Zone 7's disaster recovery work effort.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Completed nine emergency bank repairs totaling 1,580 linear feet; 4,380 feet of access road repair; re-installation of five drainage inlets; 1,000 feet of new curb and cutter drainage; one drainage pan; one concrete outfall repair; 2 desilting projects; and one log crib wall biotechnical repair. Planning, permitting, design and construction management was performed directly by Zone 7 staff.
- Zone 7 staff took emergency measures to stabilize damages to the flood control channels that occurred during the winter storms of 2017 and continues efforts on permanent repairs, including collaboration with federal and state agencies. Furthermore, Zone 7 collaborated with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) by acting as the local sponsor for a bank stabilization project at 7852 Foothill Road, with reimbursement through NRCS' Emergency Watershed Protection Program.
- Zone 7 managed various maintenance activities, such as vegetation control, downed tree removal, hydroseeding, fence and gate repairs, and debris and trash removal, totaling an additional \$500,000.
- Staff is finalizing an amendment to the Stream Management Master Plan (SMMP) using updated modeling, and is proposing projects to address flood-prone areas while still implementing key ideas of the original SMMP. In addition, long-term financial planning for the SMMP projects is ongoing and will be addressed as part of one of the phases of the SMMP Update.
- Zone 7 completed a conceptual design of Medeiros Parkway (an SMMP project) and shared it with stakeholders. Zone 7 also commenced engineering design, which continues into 2018 along with permitting.
- The Living Arroyos Program, a collaborative effort between the Livermore Area Recreation and Park District (LARPD), City of Livermore, and Zone 7, seeks to improve the urban streams and streamside habitats of the Livermore-Amador Valley and to engage the local community. Volunteers and Living Arroyos staff harvested and planted willow stakes and performed other maintenance activities along the Arroyo Mocho at Stanley Reach Project, including replanting riparian trees during the fall, applying mulch to over 1,000 oak seedlings, removing over 10,000 gallons of non-native invasive weeds through hand weeding or using string trimmers, and several stream clean-ups following high-flow events in the winter.
- The Flood Protection Program supported three grant applications. One award is in final negotiations as of 2017.
- As a part of the Stream Maintenance Program (SMP), staff began pursuing programmatic permits from CDFW, RWQCB, and the United States Army Corps of Engineers (USACE).

WORKLOAD MEASURES

	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Channel miles maintained	37	37	37	37	38	38	38
Active flood protection & stormwater drainage projects	3	3	3	3	3	4	4
Design Reviews	16	20	20	17	22	25	24

FLOOD PROTECTION STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Principal Engineer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Engineer	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Associate Engineer (Eng. III)	2.00	1.00	1.00	1.00	1.00	1.00	0.00
Assistant Engineer (Eng. II)	1.00	2.00	2.00	2.00	3.00	3.00	0.00
Water Resources Tech. II	1.00	1.00	2.00	2.00	2.00	2.00	0.00
Flood Protection	5.00	6.00	7.00	7.00	7.00	7.00	0.00

Staffing Changes

1 FTE Water Resources Technician II was promoted to Assistant Engineer. 1 FTE Senior Engineer retired.

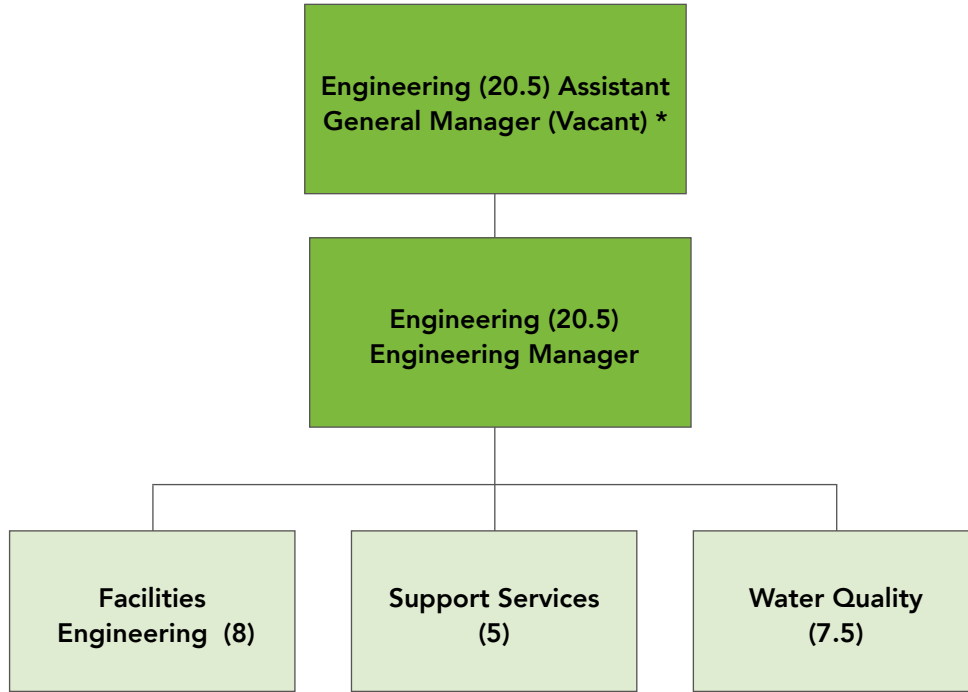
FLOOD PROTECTION BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	66,085	78,731	-	1,057	13,898
Fund 200 - Flood Protection	4,480,267	15,368,325	16,414,063	10,500,516	10,224,192
Fund 210 - Flood Protection & Stormwater Drainage	302,999	1,164,690	1,528,466	3,426,532	2,186,364
Total	\$4,849,350	\$16,611,746	\$17,942,529	\$13,928,105	\$12,424,454

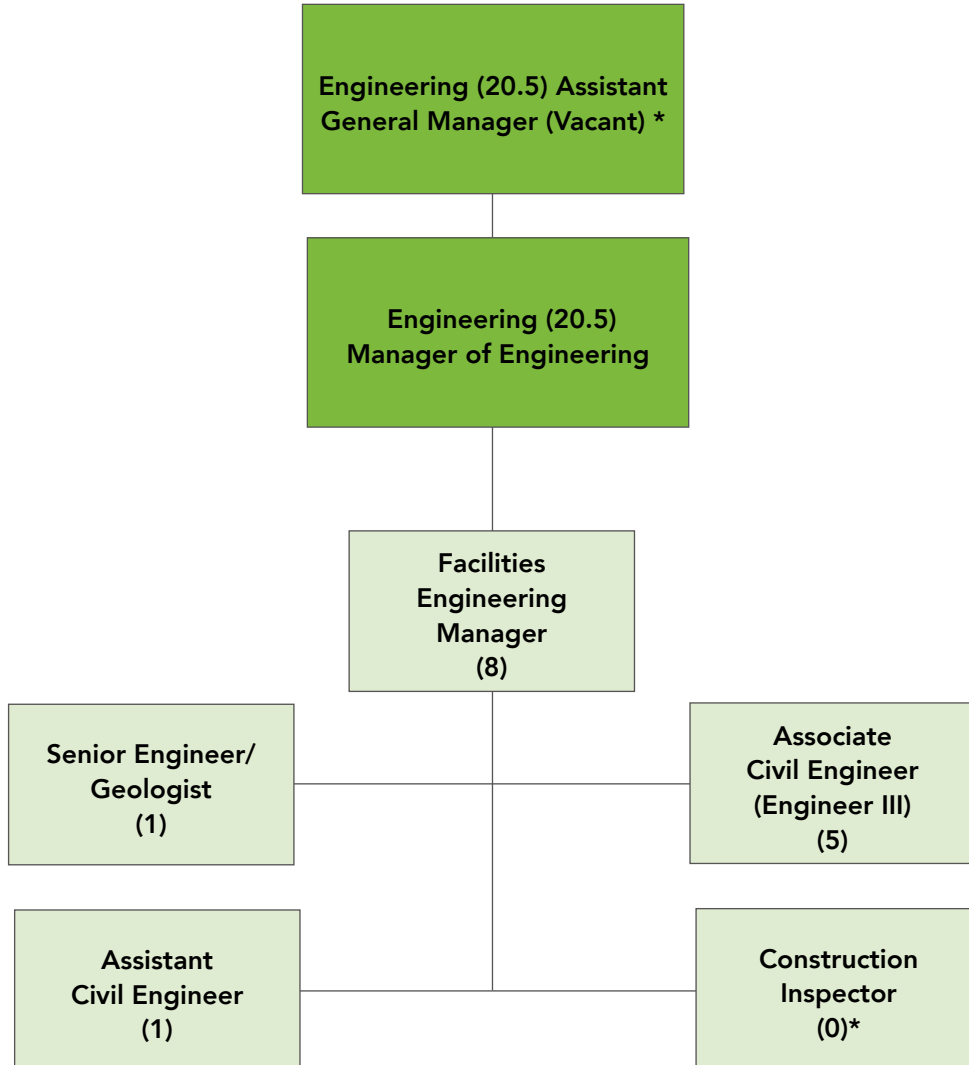
FLOOD PROTECTION BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	-	-	-	-	-
Water Treatment	-	-	-	-	-
Central Administration	66,085	78,731	-	1,057	13,898
Flood Protection	4,783,266	16,533,015	16,487,928	10,652,351	10,322,420
Capital Projects	-	-	\$1,454,601.33	\$3,274,697.00	\$2,088,136.00
Total	\$4,849,350	\$16,611,746	\$17,942,529	\$13,928,105	\$12,424,454

Engineering FY 2018-19



Engineering Facilities Engineering FY 2018-19



Facilities Engineering

Plans, designs and constructs major Capital Improvement Projects (CIP) consisting of water supply, conveyance, production, and delivery facilities for expansion, system-wide improvements and renewal/replacement programs. Also designs and constructs flood control channel improvements. Facilities engineering also manages the agency's Asset Management Programs.

FY 2018-20 GOALS AND OBJECTIVES

Plan, design and construct major water supply, production and delivery facilities as follows:

- Complete environmental review process, advertisement for bids, and start construction of the Arroyo Mocho Medeiros Project.
- Complete design, environmental review process, advertisement of bids, and start construction of the PPWTP Upgrades and Ozonation Project.
- Complete design and construction of the DWWTP Polymer Mixing System Project.
- Complete design of the DWWTP HVAC Replacement Project.
- Complete design of the Coating, Cathodic Protection and Valve Replacement for the Dougherty Reservoir Project.
- Complete construction of the Arroyo Mocho Medeiros Project.
- Complete construction of the DWWTP Ozonation Project.
- Continue construction of the PPWTP Upgrades and Ozonation Project.
- Complete construction of the DWWTP HVAC Replacement Project.
- Complete construction of the Coating, Cathodic Protection, and Valve Replacement for the Dougherty Reservoir Project.

ASSIST IN OTHER AGENCY OBJECTIVES:

- Continue to manage/implement CIP Program and Asset Management Program to provide maximum reliability for current year and beyond while meeting current water demands.
- Continue to provide engineering support as needed to the other Zone 7 departments, especially Operations and Maintenance, to help ensure the reliability of current facilities' performance.
- In conjunction with Safety and Operations staff, provide updates for and ensure compliance with Hazardous Materials Business Plans and Risk Management Plans.
- Continue to provide support on real property issues, outside development reviews, and encroachment permits related to Zone 7 water system infrastructure.
- Continue to provide support for water supply planning activities and manage specific projects.
- Continue to provide support for Stream Management Master Plan programs and projects.
- Continue to manage Arroyo Mocho Diversion to Chain of Lakes Project.
- Continue to provide as needed support for Operations and Maintenance services contracts.
- Continue to coordinate Zone 7 compliance with regulatory permits for non-stormwater discharges and potable water discharges to receiving waters.
- Continue to manage and incorporate any regulatory updates to the Labor Compliance Program.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Completed construction of the Stoneridge Well Sodium Hypochlorite System Renewal/Replacement Project.
- Completed design and construction of the Interior Recoating, Cathodic Protection and Valve Replacement for the DWWTP 4.5 Million Gallon Clearwell Project.
- Completed design and construction of the Mocho Well 2 Repair Project.
- Completed design and CEQA process for the Arroyo Mocho Medeiros Project.
- Completed design, advertisement for bids, and started construction of the DWWTP Ozonation Project.
- Completed CEQA and continuing design of the PPWTP Upgrades and Ozonation Project.
- Started design of the DWWTP Polymer Mixing System Replacement Project.

WORKLOAD MEASURES

	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Development reviews	20	20	30	17	22	25	24
Capital projects (millions)	\$45.1	\$32.5	\$3.6	\$5.9	\$11.5	\$92.5	\$21.7

FACILITIES ENGINEERING STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Mgr. of Engineering	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Principal Engineer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Eng./ Geologist	2.00	2.00	2.00	2.00	1.00	1.00	0.00
Associate Eng. Control System	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Associate Civil Eng. (Eng. III)	5.00	4.00	4.00	4.00	5.00	5.00	0.00
Assistant Civil Eng.	2.00	2.00	2.00	2.00	1.00	1.00	0.00
Construction Inspector	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Water Res.Tech. III	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Res.Tech.II	2.00	1.00	1.00	1.00	1.00	1.00	0.00
Total	14.00	12.00	13.00	13.00	11.00	12.00	1.00

Staffing Changes

1 FTE, Construction Inspector moved to soft hiring freeze for FY 2018-19 only.

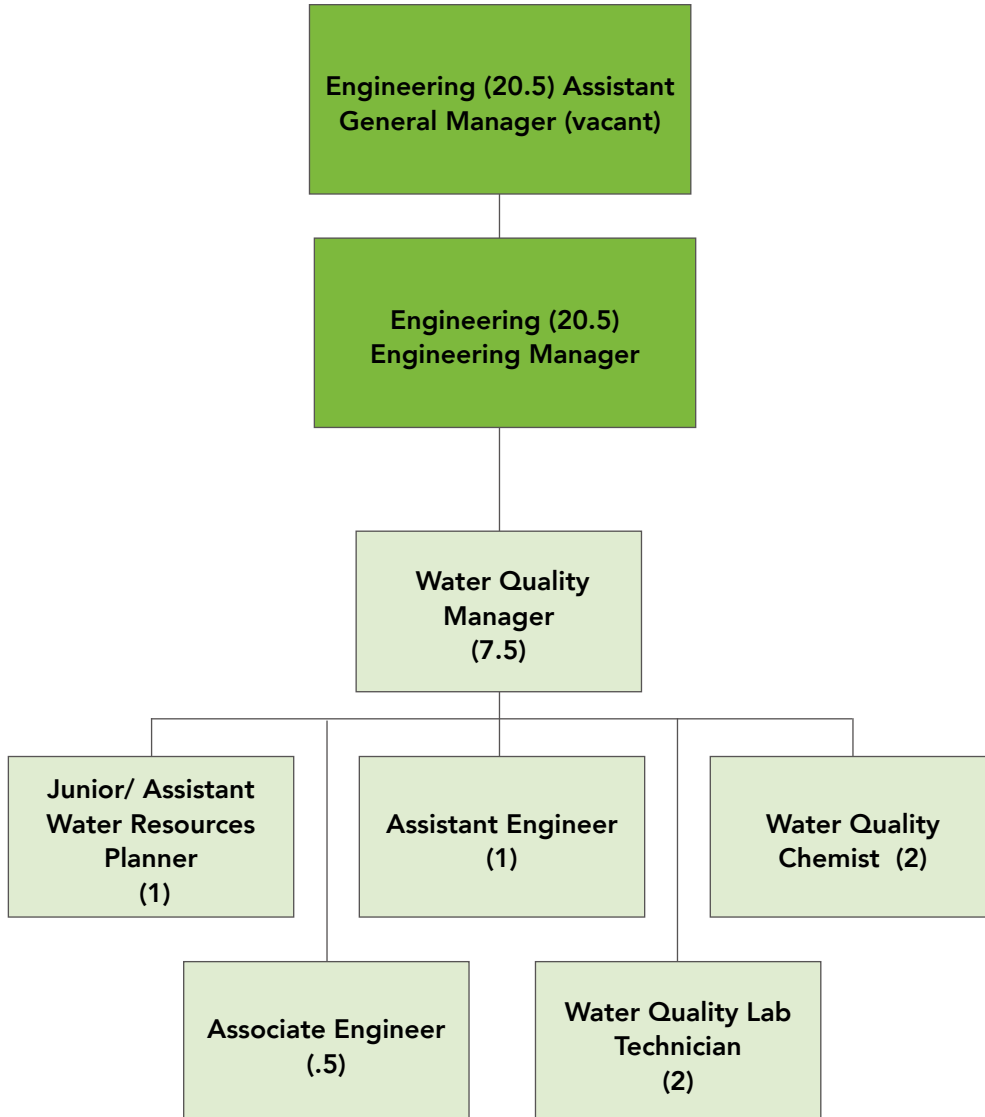
FACILITIES ENGINEERING BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	1,215,492	1,712,293	980,642	1,525,708	1,520,591
Fund 120 - Water Renewal/ Replacement & Systemwide Improvements	4,925,359	18,780,568	49,815,610	35,718,757	6,242,793
Fund 130 - Water Expansion	551,678	2,686,560	928,822	52,725,080	10,833,814
Fund 200 - Flood Control	289,982	1,914,043	293,891	1,794,601	2,382,135
Fund 210 - Flood Protection & Stormwater Drainage	102,112	2,445,566	189,293	2,311,287	2,281,994
Total	\$7,084,622	\$27,539,030	\$52,208,258	\$94,075,433	\$23,261,327

FACILITIES ENGINEERING BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	1,009,217	2,716,018	904,185	1,969,253	2,066,465
Supply Source & Conveyance	46,787	29,139	32,064	33,846	31,046
Water Storage	80,195	38,263	14,844	31,417	40,100
Water Treatment	5,064,151	5,493,442	49,999,827	181,915	233,675
Water Transmission	386,960	327,228	597,196	165,270	165,757
Central Administration	105,218	158,105	176,958	250,513	187,526
Flood Protection	392,093	2,636,311	483,184	1,913,953	2,472,194
Capital Projects	0	16,140,524	0	89,529,266	18,064,564
Total	\$7,084,622	\$27,539,030	\$52,208,258	\$94,075,433	\$23,261,327

Engineering Water Quality FY 2018-19



Water Quality

Provides water quality engineering technical support and laboratory analytical services for regulatory compliance, optimizing treatment plant performance, well and distribution system operation, water quality improvement studies, supporting integrated planning, and supporting groundwater/stream management. WQ also provides technical support to Operations to resolve or understand water quality issues, as well as providing analytical support services to our retailers, as needed.

FY 2018-20 GOALS AND OBJECTIVES

Reliably provide high quality water:

- Continue providing water that meets all DDW and EPA primary (health-related) standards.
- Complete 2018 biennial Water Quality Management Program (WQMP) report.
- Enhance Algal Toxins analysis capabilities by adding Automated Assay System in WQ Laboratory.
- Replace older IC, TOC, and GC analytical systems with newer systems.
- Renew ELAP certification.
- Continue providing operational support, including preparing the EarthTec testing report at PPWTP.
- Continue providing engineering support, including obtaining amended water supply permits for the ozone projects at DVWTP and PPWTP.
- Continue monitoring State and federal regulatory development for drinking water standards.
- Continue to represent Zone 7 and its interests in source water quality collaboration groups, including the Municipal Water Quality Investigation Program (MWQI), the South Bay Contractors Water Quality Task Force, and the Bay Area Regional Consortium for the Coordinated Prevention of Quagga and Zebra Mussels.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Completed 2016 biennial WQMP report.
- Completed assessment of the current corrosion control practices at Zone 7's water treatment plants.
- Completed report for the 2015 Carbon Dioxide testing at DVWTP.
- Joint research project with ACWD and other water utilities for "Optimizing Biofiltration for Improved Manganese Control under Winter Conditions" was approved by the Water Research Foundation (WRF).
- Obtained AWWA Partnership for Safe Water Directors awards for DVWTP in 2016 and 2017.
- Attained certification for EPA method 200.7 for metals analyses.
- Purchased and set up two analytical systems for metals and MIB/Geosmin analyses.

WORKLOAD MEASURES

	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Water quality samples analyzed	1,462	1,519	1,007	1,410	1,180	1,500	1,600
Bacteriology samples analyzed	1,294	1,361	1,450	1,320	1,375	1,400	1,450

WATER QUALITY STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Associate Engineer (Engineer III)	0.50	0.50	0.50	0.50	0.50	0.50	0.00
Assistant Engineer (Engineer II)	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Junior Water Resources Planner	1.00	1.00	1.00	1.00	0	1.00	0.00
Water Quality Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Quality Chemist	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Water Quality Lab Technician	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Total	7.50	7.50	7.50	7.50	7.50	7.50	0.00

Staffing Changes

No changes.

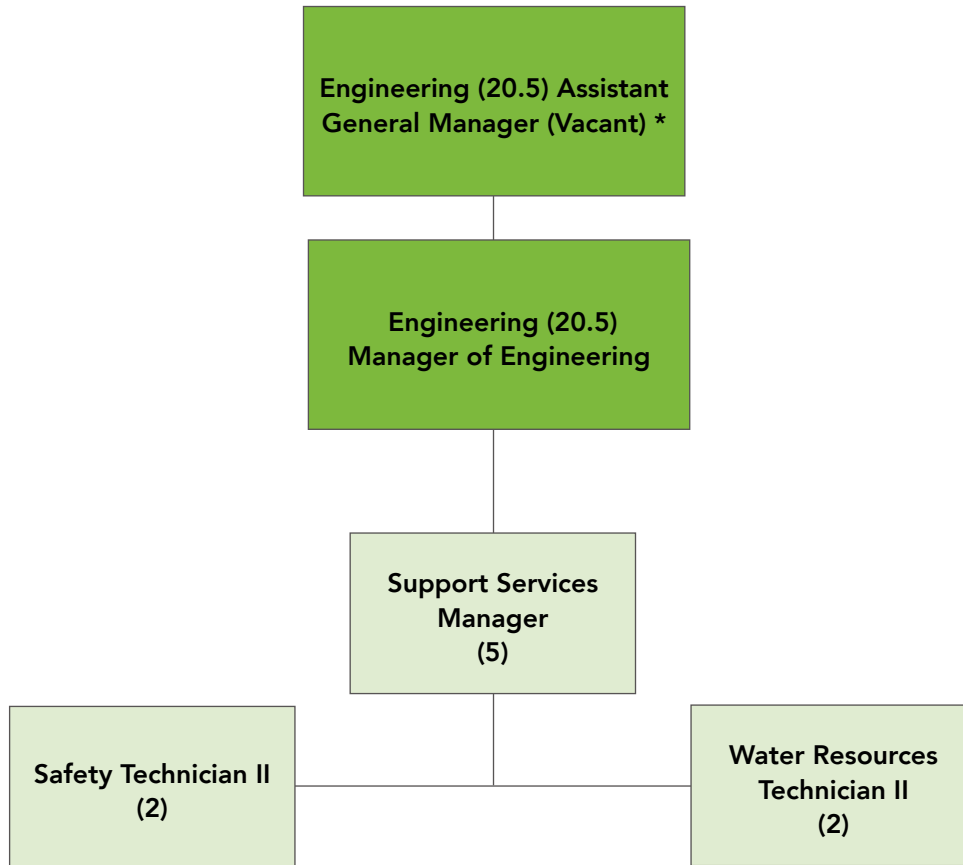
WATER QUALITY BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	\$1,299,895	\$1,203,014	\$1,326,438	\$1,157,293	\$1,186,776
Supply Source & Conveyance	27,659	89,000	74,606	100,067	98,123
Water Storage	80,645	117,817	56,132	201,270	118,375
Water Treatment	190,397	308,630	151,759	240,956	322,739
Central Administration	-	1,809	-	4,543	1,885
Flood Protection	2,306	-	-	-	-
Capital Projects	-	136,768	-	140,000	140,000
Total	\$1,600,902	\$1,857,038	\$1,608,935	\$1,844,129	\$1,867,898

WATER QUALITY BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	\$1,299,895	\$1,203,014	\$1,326,438	\$1,157,293	\$1,186,776
Supply Source & Conveyance	27,659	89,000	74,606	100,067	98,123
Water Storage	80,645	117,817	56,132	201,270	118,375
Water Treatment	190,397	308,630	151,759	240,956	322,739
Central Administration	-	1,809	-	4,543	1,885
Flood Protection	2,306	-	-	-	-
Capital Projects	-	136,768	-	140,000	140,000
Total	\$1,600,902	\$1,857,038	\$1,608,935	\$1,844,129	\$1,867,898

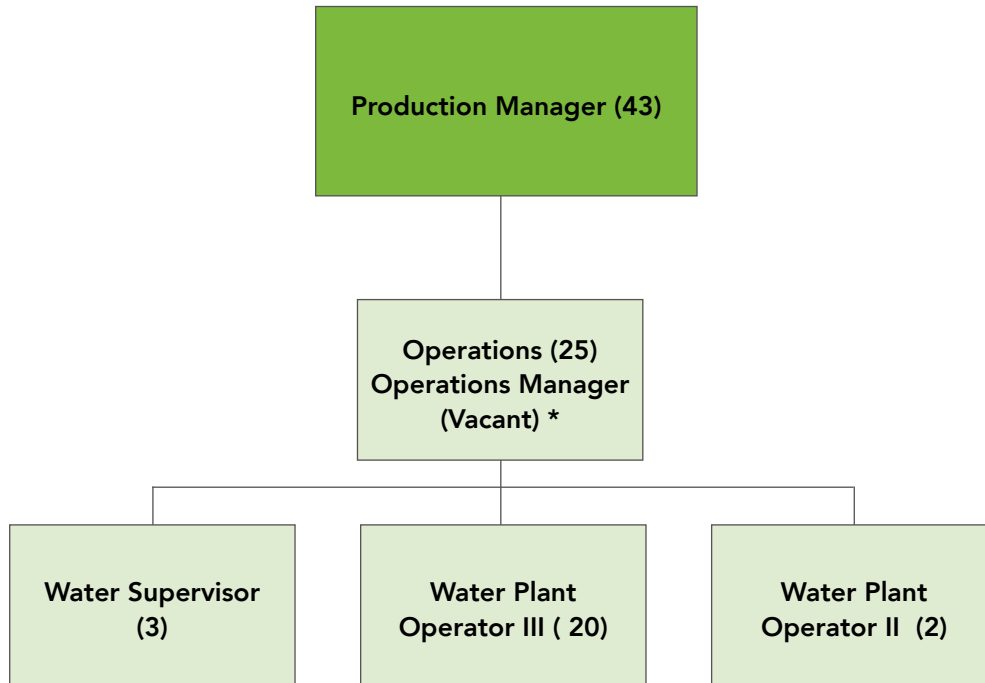
Engineering Support Services FY 2018-19



This Section is part of a pilot study to see if adding such a new section to the organizational structure increases Agency functionality so one can anticipate that the special assignment will be for up to a one-year study period and that it will entail temporary reassignments of other staff from existing sections to the new section or between existing sections to improve the chances for success.

Once it is clear to the General Manager that the pilot study is either a success or a failure, she will review how the overall organization is working and either solidify, adjust or dissolve this Section.

Production Operations FY 2018-19



Operations

Operates two surface water treatment plants (Del Valle conventional Water Treatment Plant (WTP), and Patterson Pass conventional WTP,), ten wells, one groundwater demineralization plant (MGDP), the transmission system to deliver water to retailers, several rate control/pump stations, and numerous metered turnout facilities to the retail water agencies to ensure proper operation of facilities and treatment and delivery of water.

FY 2018-20 GOALS AND OBJECTIVES

Meet service and quality requirements of the Agency's customers:

- Deliver water to treated and untreated customers according to approved water delivery requests and as required in the event of unscheduled or emergency situations.
- Meet and/or exceed all drinking water requirements through diligent operation of the Agency's two water treatment plants, ten wells, demineralization plant, and transmission system.
- Conduct safety and environmental compliance planning and training to ensure the continued health and safety of employees:
- Facilitate safety and environmental compliance program improvements throughout the agency while ensuring all California Regulatory and Preventive Programs are adhered to.
- Update procedures for the addition of ozone treatment at both water treatment plants.
- Update procedures for the addition of filters and pump station at the Patterson Pass Water Treatment Plant.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Delivered high-quality water to treated customers as required.
- Reviewed specifications on Patterson Pass and Del Valle Treatment Plants Ozone Projects, provided comments and commenced design/ construction projects.
- Decommissioned Ultra Filtration water treatment to be replaced by ozone treatment and filtration systems.
- All agency operators trained on new hypochlorite facilities for Stoneridge and Hopyard 6 wells.
- Three new operators on-boarded, trained and working on shift.
- Constructed new centrate recycle system and put into service.
- Began EarthTec test for in-plant algae control at Patterson Pass Treatment Plant.
- Added caustic side stream pump to improve caustic mixing.
- Installed baffles prior to filters to improve sodium hypochlorite mixing.
- Completed several SCADA adjustments to control and improve chemical dosing plant inlet flow.
- Completed repair, flush, disinfection per AWWA Standards and returned Hopyard PL back in service after a long period of being off line.
- Facilitated Certified Unified Program Agency (CUPA) Program Inspections (required to be conducted at least once every three years).
- Purchased new pipeline locator with GPS. More accurate location and depth of pipelines & stations; downloaded all info into Zone 7's GIS system.
- Underground Service Alert - Changed USA alert system by putting our pipelines into USA's GIS with a 200 foot clearance. Anyone who submits a USA ticket, if they are going to work within 200 feet of Zone 7's pipelines we get a notification. We reduced USA notifications from approximately 28,000 USA tickets per year to approximately 5,600 USA tickets.

WORKLOAD MEASURES

	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Water treated (millions of gallons)	12,546	9,064	9,263	10,063	11,000	13,000	13,300

OPERATIONS STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Production Manager	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Operations Manager	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Water Facilities Supervisor	3.00	3.00	3.00	3.00	3.00	3.00	0.00
Secretary	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Safety Technician II	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Water Plant Operator II	0.00	0.00	0.00	0.00	2.00	2.00	0.00
Water Plant Operator III	19.00	19.00	20.00	20.00	20.00	20.00	0.00
Total	24.00	24.00	27.00	27.00	28.00	29.00	1.00

Staffing Changes

1 FTE, Operations Manager is soft hiring freeze position for FY 2018-19 only.

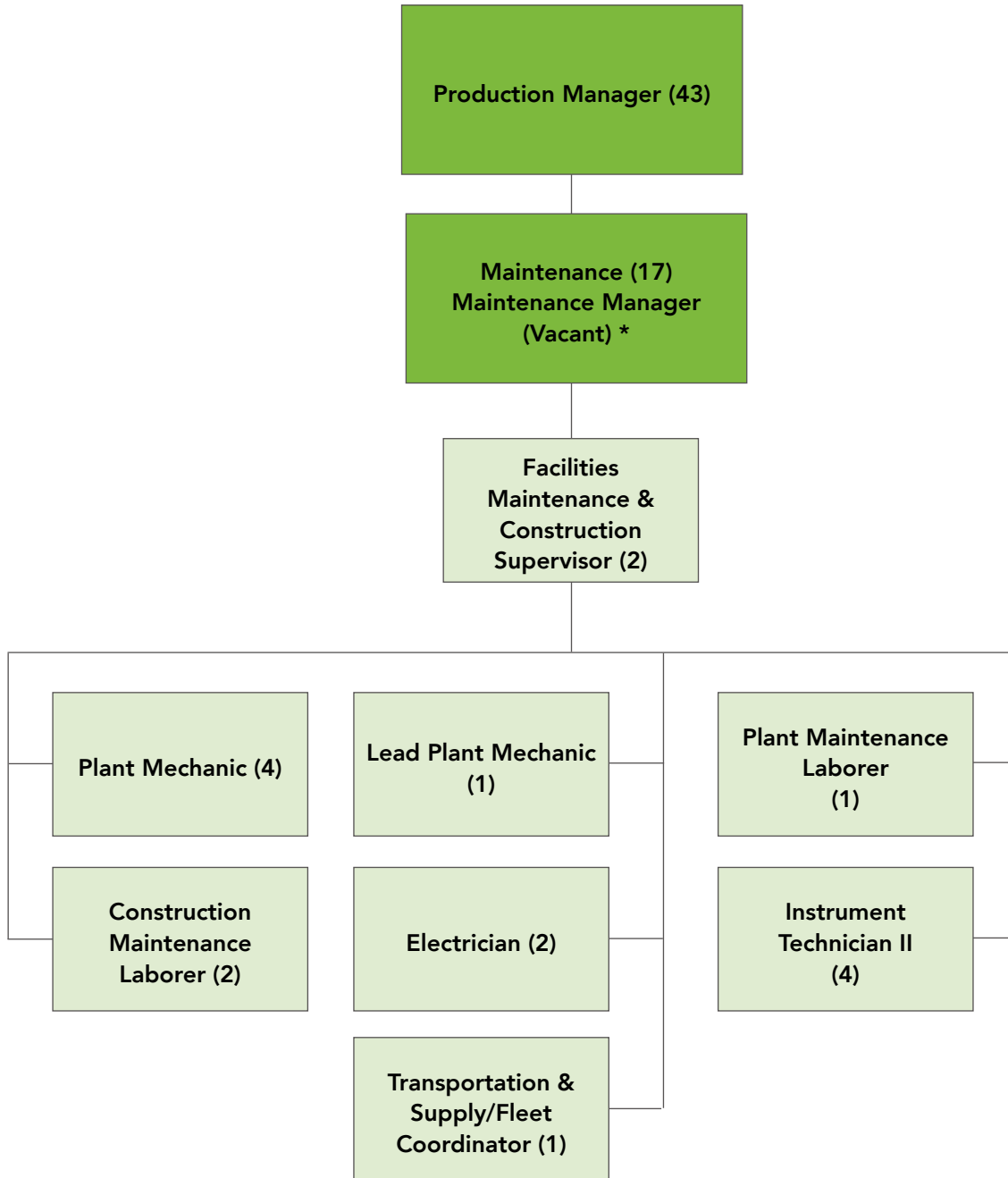
OPERATIONS BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	8,594,514	10,901,649	11,054,819	11,314,450	10,974,827
Fund 120 - Renewal/ Replacement & Systemwide Improvements	23,557	-	35,343	15,420	-
Fund 130 - Expansion	10,719	-	12,347	-	-
Fund 200 - Flood Control	11,597	424	420	437	450
Total	\$8,640,388	\$10,902,073	\$11,102,929	\$11,330,307	\$10,975,277

OPERATIONS BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	1,184	555,350	16,065	581,644	432,782
Supply Source & Conveyance	-	4,479	-	4,613	4,751
Water Storage	-	279	-	287	296
Water Treatment	7,445,550	9,158,338	10,100,063	9,424,567	9,149,519
Water Transmission	979,426	837,079	816,278	936,446	1,001,700
Central Administration	202,631	346,124	170,103	382,313	385,779
Flood Protection	11,597	424	420	437	450
Total	\$8,640,388	\$10,902,073	\$11,102,929	\$11,330,307	\$10,975,277

Production Maintenance FY 2018-19



Maintenance

The section provides maintenance and construction services for the entire treated water system (e.g., water treatment plants, wells, demineralization plant, and rate control/pump stations) including mechanical, electrical, and instrumentation services. In addition the section performs underground pipeline repair and maintenance, solids off-hauling and handling; and incidental maintenance support for other sections within the agency, such as Flood Protection. The Maintenance section also provides fleet management services for all Agency vehicles.

FY 2018-20 GOALS AND OBJECTIVES

Maintenance will continue daily work as stated above and to perform the same types of work on capital projects, including those originating in Maintenance and assisting as requested on larger projects with Engineering. Among these is the replacement of a flow meter and isolation valve at CWS turnout 5 and to continue installation of new hypochlorite and ammonia chemical feed pumps at our production wells. Staff continues working towards a functional inventory and storage system as well.

FY 2016-18 MAJOR ACCOMPLISHMENTS

- Installed an improved centrate drain system which includes a tank and drainline from the centrifuge for centrate recycle to the equalization basin at the Del Valle Water Treatment Plant (DWWTP).
- Installed updated ammonia chemical dosing systems at the Stoneridge and Hopyard 6 production wells.
- Installed electrical and controls for the MGD Concentrate Flush System.
- Installed new Plant Water Pumps at the Patterson Pass Water Treatment Plant.
- Opened, inspected, and descaled the Mocho Groundwater Demineralization Plant Centrate Line.
- Replaced control valve and pressure regulator at DSRSD Turnout 4.
- Installed new Dougherty Tank inlet control valve.
- Major repair of the centrifuge rotating assembly at DWWTP.
- Performed a complete o-ring replacement on the feed side of all RO Pressure Vessels at MGD.
- Replaced anodes on the Patterson Pass Water Treatment Plant (PPWTP) clarifier rake mechanism.
- Replaced Pleasanton Turnout 4 flow control valve.
- Major repair of PPWTP Plant finished treated water line.
- Installed a Caustic Side-stream mixing system at PPWTP to enhance caustic mixing for finished treated water pH control.
- Installed stainless steel valves and piping on the Underdrain Pump Station at DWWTP.

WORKLOAD MEASURES

	FY13-14 Actual	FY14-15 Actual	FY15-16 Actual	FY16-17 Actual	FY17-18 Estimate	FY18-19 Estimate	FY19-20 Estimate
Maintenance jobs completed After consolidation of PM work orders	2,903	3,100	3,300	2,325	2,500	2,500	2,500

MAINTENANCE STAFFING SUMMARY

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Maintenance Manager	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Facilities Maint & Construction Supervisor	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Maintenance Coordinator	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Electrician	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Transportation & Supply/Fleet Coordinator	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Instrument Technician II	4.00	4.00	4.00	4.00	4.00	4.00	0.00
Lead Plant Mechanic	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Plant Mechanic	4.00	4.00	4.00	4.00	4.00	4.00	0.00
Plant Maint Laborer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Resources Tech. II	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Construction Maintenance Laborers	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Total	19.00	20.00	20.00	20.00	18.00	19.00	-2.00

Staffing Changes

1 FTE Maintenance Manager is soft hiring freeze for FY 2018-19 only. 1FTE Maintenance Coordinator moved funding to Buyer 1.

MAINTENANCE BUDGET BY FUND

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Fund 100 - Water Enterprise	4,313,801	4,676,528	3,790,267	4,806,990	4,918,173
Fund 120 - Water Renewal/ Replacement & Systemwide Improvements	69,993	784,679	14,763	799,596	828,645
Fund 130 - Expansion	-	-	-	-	-
Fund 200 - Flood Protection	28,314	30,192	38,114	31,098	32,031
Total	\$4,412,108	\$5,491,399	\$3,843,144	\$5,637,684	\$5,778,849

MAINTENANCE BUDGET BY PROGRAM

Fund	FY 16-17 Actual	FY 17-18 Amended Budget	FY 17-18 End-of-Year Projection	FY 18-19 Proposed Budget	FY 19-20 Proposed Budget
Water Utility Support Services	1,814,814	1,974,469	1,332,753	1,597,645	2,064,988
Water Storage	34,677	101,066	13,215	49,428	108,772
Water Treatment	2,286,371	2,460,998	2,270,469	2,465,738	2,510,462
Water Transmission	202,662	488,168	133,948	658,011	514,710
Central Administration	45,270	73,416	54,645	415,764	77,886
Flood Protection	28,314	30,192	38,114	31,098	32,031
Capital Projects	-	363,090	-	420,000	470,000
Total	\$4,412,108	\$5,491,399	\$3,843,144	\$5,637,684	\$5,778,849



WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

APPENDIX A FINANCIAL MANAGEMENT FRAMEWORK

Financial Management Framework

1. PURPOSE

To direct staff to prudently manage Zone 7's funds and to maintain financial and accounting records of all transactions in accordance with generally accepted accounting principles.

To adequately plan for the funding of current and future operational requirements and capital resources necessary to achieve the Agency's mission.

To provide staff with a framework to develop policies and procedures to ensure Zone 7's mission by providing financial health and stability to the Agency.

To direct staff that the assessment, levy and collection of taxes, the adoption of the Agency budget, and the appropriation, accounting, and transfer of funds shall be governed by general law and in accordance with generally accepted accounting principles and practices.

2. ADMINISTRATION OF THE SYSTEM

In keeping with Resolution No. 09-3266, which states that "The Agency's General Manager has full charge and control of the day-to-day management, operation and administration of the Agency," the General Manager shall retain primary jurisdiction, responsibility, and authority for all matters pertaining to the day-to-day financial management of the Agency. To direct, control, supervise, and manage the development, preparation, organization, administration, operation, implementation, and maintenance of a comprehensive financial management program for Zone 7 Water Agency, the General Manager shall be designated as the fiscal officer of the Agency.

The General Manager may delegate any of the powers and duties conferred upon him or her as fiscal officer to any other employee of the Agency or may recommend that such powers and duties or any part of them be performed under contract.

3. SECURITY OF THE SYSTEM

The General Manager shall cause an audit of the financial transactions and records of the Agency to be made at least annually by a third party certified public accountant (i.e., one not employed by the Agency). As soon as possible at the end of each fiscal year a final audit and report shall be completed and submitted to the Board of Directors. Copies shall be placed on file in the office of the General Manager and be available for public inspection.

The General Manager shall also prepare such additional reports as the Board of Directors may from time to time request for information and use in setting financial policies for the Agency.



WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

APPENDIX B

RESERVE POLICY

Reserve Policy

1. POLICY STATEMENT

Zone 7's mission is to provide a reliable supply of high-quality water and effective flood control in a fiscally-responsible way. A key element of prudent financial management is to ensure that sufficient funding is available for current operating, capital, and debt service needs. Additionally, fiscal responsibility requires anticipating the likelihood of, and preparing for, unforeseen events. Zone 7 Water Agency ("Zone 7" or the "Agency") will at all times strive to have sufficient funding available to meet its operating, capital, and debt service obligations. Reserve Funds ("Funds") will be accumulated, designated and maintained to allow Zone 7 to fund operating expenses and capital expenditures in a manner consistent with its budget and capital improvement plan, respectively, and avoid significant customer rate fluctuations due to changes in cash flow requirements. Further, Zone 7 will endeavor to designate funds for all forms of potential disasters, emergencies and unforeseen events to ensure that funds are available to cover the costs associated therewith.

The Zone 7 Board of Directors (the "Board") adopted a Financial Management Framework (the "Framework") on November 16, 2011 (Resolution Number 11-4137) which includes planning for current operating and capital resource needs to ensure it can achieve its mission by providing for financial stability and health of the Agency. This Final Reserve Policy has been developed in keeping with the Framework after evaluating the efficacy of an Interim Reserve Policy adopted in 2013. One of the Framework's goals is to be able to respond to changes in the economic environment and service demands with minimal impact on its customers while maintaining the financial integrity of Zone 7. A fundamental purpose of this policy is to link what must be accomplished with the necessary resources to successfully do so.

The Policy directives outlined in this document are intended to ensure Zone 7 has sufficient funds to meet current and future needs. The Board shall designate specific funds and maintain minimum fund balances consistent with definitions and funding levels outlined in the Policy.

2. FUNDS

Zone 7 maintains financial assets in separate funds that are clearly identifiable, and segregated for specific purposes in accordance with laws and regulations. The Agency shall not commingle funds that are established under different functions of the Agency nor shall it commingle developer fees with operational funding.

This Policy establishes Reserve Funds for each of the following major funding areas.

Water Enterprise Operations and Capital Projects Fund (Funds 100 and 120)

These funds account for enterprise operation and administration, emergency and support services, variable State water charges, water facilities maintenance and operation, water facilities, water resources and water supply planning, and renewal, replacement and system-wide improvement types of capital projects.

State Water Project Fund (Fund 110)

This fund is used for fixed State Water Project charges, including State Water Project bonded indebtedness.

Water Enterprise Capital Expansion Fund (Fund 130)

Expansion is funded by water connection fee revenue imposed on new development to fund new development's fair share of capital projects necessary to accommodate growth. These water connection fees are subject to the provisions contained in the California Mitigation Fee Act (Government Code § 66000 et seq.)

Flood Protection Operations Fund (Fund 200)

This fund provides for general administration and regional flood control services, including renewal, replacement and system-wide improvement types of capital projects to ensure the controlled runoff of the Valley's excess stormwater runoff.

Flood Protection Development Impact Fee Fund (Fund 210)

Expansion is funded by development impact fees imposed on new development to pay for new development's fair share of the acquisition, construction, engineering and improvement of the flood protection and/or storm water drainage elements of the Stream Management Master Plan of Zone 7, or to reduce the principal or interest of any bonded indebtedness thereof. Development fees are collected in accordance with the California Mitigation Fee Act (Government Code § 66000 et seq.)

3. RESERVE FUND DEFINITIONS

Restricted Reserves: Restrictions on the use of these funds are imposed by an outside source such as creditors, grantors, contributors, laws, or regulations, for example water connection fees or flood protection developer impact fees per the California Mitigation Fee Act.

Designated Reserves: Funds set aside for a specific purpose determined by Zone 7's Board of Directors as documented by minute order, resolution or ordinance. The Board of Directors has the authority to redirect the use of these funds as needs of the Agency change.

Unrestricted Reserves: Have no imposed restrictions as to their use.

4. GENERAL PROVISIONS

Purpose of Reserve Funds

Reserves are established to:

- Comply with applicable statutory requirements
- Finance future capital facilities, finance improvements, and repair and replacement of existing assets
- Assure cash flow requirements are met
- Provide for economic uncertainties, local disasters, and other financial hardships or downturns in the local or national economy
- Provide for contingencies, emergencies or unforeseen operating or capital needs
- Meet bond covenant requirements

Segregation of Funds

The Agency will not transfer moneys between reserve funds that are established under different functions of the Agency. The Agency may complete interfund borrowing between reserves of different functions of the Agency at current market rates. The Board shall approve any reallocation of funds or any transfers among Reserve Funds.

Periodic Review Dates for Balances

Fund balances and target levels will be reviewed by staff, the Board and the public during the development and approval of each budget, annual financial audit and periodic water rate discussions.

5. POLICY COMPLIANCE

The Minimum established for each reserve represents the target that is acceptable from both risk and long-range financial planning perspectives, as well as demonstrating financial stability to the rating agencies and lending institutions. Maintaining fund balances at appropriate levels is a prudent, ongoing business process that consists of an iterative, dynamic assessment and application of various revenue generating alternatives and cost management measures. To ensure reliable service to its ratepayers and to maintain fiscal responsibility, in every fiscal year Zone 7 will maintain balances in its Reserve Funds that are financially prudent.

Upon Board adoption of this policy, necessary actions will be taken to comply with this policy. Periodic reviews will ensure that reserves are in compliance with policy. In the event that a reserve has fallen below the minimum, and other reserves are above minimum and/or maximum, a transfer(s) shall be made from other reserve(s) within that fund to bring the non-compliant reserve to the minimum level. If reserves are depleted, the reserves shall be replenished within the two (2) year budget period to the established or re-established target through revenue generating alternatives and/or cost management measures. If cumulative reserves within a fund exceed maximum levels, a report will be made to the Board and alternative solutions considered.

Revenue-generating alternatives and cost management measures (either alone or in combination with each other) include, but are not limited to:

- rates, fees and charges
- capital financing
- investment of funds
- grants
- energy efficiencies
- pooled services/equipment agreements
- chemical purchase consortiums
- deferral or acceleration of capital projects, as appropriate

6. RESERVE FUND TARGET LEVELS AND MANAGEMENT

The following section describes Zone 7 reserves, target levels and management of funds.

WATER ENTERPRISE OPERATIONS FUND RESERVES

The Water Enterprise Operations fund has four reserve categories:

- A. Operating Reserve
- B. Emergency Reserve
- C. Drought Contingency Reserve
- D. Rate Stabilization Reserve

A. OPERATING RESERVE

The Operating Reserve is designated by the Board to maintain a reserve for current operations and to meet routine cash flow needs. The amounts in this reserve will fluctuate depending on the annual operating expenses of Zone 7. Money on deposit in this reserve may be used for unanticipated operating expenses, daily cash flow requirements and minor emergencies such as unanticipated infrastructure failures.

Minimum Level Funding shall be targeted at a minimum amount equal to sixty (60) days of the Agency's budgeted total operating expenses.

Target Level Zone 7 shall strive to maintain a target balance equal to ninety (90) days of Agency's budgeted total operating expenses.

Maximum Level The maximum amount shall not exceed one hundred twenty (120) days of the total budgeted operating expenses.

Events or Conditions Prompting the Use of the Fund This reserve may be routinely utilized to cover temporary cash flow deficiencies caused by timing differences between the receipt of revenue and actual expenses or extraordinary decreases in revenues and unexpected increases in expenses.

B. EMERGENCY RESERVE

Funds in the Emergency Reserve can be used for any operating or capital purpose (i) to begin repair of the water enterprise system after a catastrophic event or disaster, such as, but not limited to, an earthquake, fire, terrorist event, or storm while insurance claims are being processed or (ii) in the event of severe financial events that impact the financial soundness of Zone 7. The Federal Emergency Management Agency (FEMA) may provide reimbursement to utilities after a catastrophic event; however, the reimbursement may take up to three years. It is important to have immediate funding available for the repairs, especially given the seismic vulnerability of the region and potential multi-year delays in reimbursement.

Minimum Level Funding shall be targeted at a minimum equal to two percent (2%) of the capital assets of the Agency's water enterprise system to provide cash on hand for emergency repairs, particularly due to the seismically-active location of the Agency.

Target Level Zone 7 shall strive to maintain a target balance equal to two and one half percent (2.5%) of the capital assets of the Agency's water enterprise system to provide cash on hand for emergency repairs, particularly due to the seismically-active location of the Agency.

Maximum Level The maximum amount shall not exceed three percent (3%) of the capital assets of the enterprise system to provide cash on hand for emergency repairs, particularly due to the seismically-active location of the Agency.

Events or Conditions Prompting the Use of the Fund The Board may designate use of this reserve after establishing that conditions exist as called out in the definition and purpose of the fund and declaring a local state of emergency. Funds will be transferred to the appropriate capital or operating fund as necessary.

C. DROUGHT CONTINGENCY

The Drought Contingency Reserve supplements losses to water sales revenue resulting from impacts of drought conditions due to hydrologic, regulatory or State and Federal mandated reductions in supply. On March 16, 2016, the Zone 7 Board adopted the 2015 Urban Water Management Plan (UWMP), including the Water Shortage Contingency Plan (Resolution Number 16-122). The plan established four stages of action for the purposes of water supply shortage contingency planning, ranging from minimal shortage to critical shortage. It identifies actions to be taken upon declaration of a shortage, including consumption reduction and financial recovery measures. In the event that a declared water shortage stage generates a reduction in water usage and corresponding sales, Zone 7 will use this reserve (and the Rate Stabilization Reserve, as needed) and water shortage surcharges as needed to maintain fiscal health. This reserve will cover a percentage of the revenue loss and the remainder of loss not covered through reserves will be generated through a water shortage surcharge.

Minimum Level Funding shall be targeted at a minimum balance equal to five percent (5%) of the budgeted amount of water sales revenue. This reserve may be fully depleted during a drought.

Target Level Zone 7 shall strive to maintain a target balance equal ten percent (10%) of the budgeted amount of water sales revenue.

Maximum Level The maximum amount shall not exceed twenty percent (20%) of the budgeted amount of water sales revenue.

Events or Conditions Prompting the Use of the Fund Funds may be utilized to cover operating expenses when revenue does not cover the cost of providing services (operating expenses and Asset Management Program transfer) due to losses resulting from the aforementioned conditions. The need for funding drought contingency measures may be reviewed at any time during the course of any fiscal year should the need arise. Use of this reserve requires Board approval.

D. RATE STABILIZATION RESERVE

The Rate Stabilization Reserve will serve as a means to temper the need for significant water rate increases and to meet debt service coverage requirements. The reserve will accumulate revenues for use during periods of unanticipated fluctuations in treated water rate revenues and cost of service in order to offset significant increases in water rates. This reserve would be used in any year when revenues are not sufficient to meet debt service coverage ratios as required by bond covenants. Funds on deposit within this reserve may be treated as revenues for the purpose of computing debt service coverage ratios. This reserve may also be used in conjunction with the Drought Contingency Reserve during a water shortage as specified in the 2015 UWMP Water Shortage Contingency Plan (Resolution Number 16-122).

Minimum Level Funding shall be targeted at a minimum balance equal to ten percent (10%) of the budgeted amount of water sales revenue.

Target Level The Agency will strive for target balance equal to fifteen percent (15%) of the budgeted amount of water sales revenue.

Maximum Level The maximum amount shall not exceed twenty percent (20%) of the budgeted amount of water sales revenue. Any amount above the minimum, target and/or maximum level may be drawn down to smooth rate increases as authorized by the Board during the rate-setting/budget process and treated as revenues for the purpose of computing debt service coverage ratios.

Events or Conditions Prompting the Use of the Fund To determine whether and in what amount money from this reserve should be used to offset any proposed water rate increase in excess of two times the CPI for the San Francisco Bay Area, Zone 7 will consider and analyze the following factors:

1. the annual CPI for the San Francisco Bay Area;
2. the annual increase in construction costs as provided by the Engineering New Record or alternative source for such data;
3. the projected rate increases for the next succeeding five fiscal years of the Agency;
4. the actual rate increases for the previous five fiscal years of the Agency;
5. the projected capital expenditures for the next succeeding five fiscal years of the Agency;
6. the funds on hand to spend on capital projects over the next succeeding five fiscal years of the Agency;
7. the amounts on deposit in each of the other Reserve Funds covered under this policy; and
8. bond covenant requirements

WATER ENTERPRISE RENEWAL & REPLACEMENT AND SYSTEM-WIDE IMPROVEMENTS RESERVE

The Agency has employed a pay-as-you-go funding strategy to minimize debt borrowing and interest expenses. Therefore capital reserve funds are accumulated to provide for current and future funding needs of the various capital programs and to facilitate completion of multi-year projects. The amount on deposit in the Water Enterprise Renewal & Replacement and System-Wide Improvements Reserve is earmarked by the Board of Directors for capital projects to meet regulatory requirements, replacement needs and system reliability of Zone 7's water enterprise. These capital projects are included in the ten (10)-year Water System Capital Improvement Program and the Asset Management Program (AMP), both of which are reviewed and approved by the Board of Directors periodically.

Within this fund is a separate reserve to be used for a portion of the acquisition of the Agency's administrative-engineering building (the "Building Sinking Fund"). Contributions are made to the Water Enterprise Renewal & Replacement and System-Wide Improvement Sinking Fund at the discretion of the Agency and money therein is designated for the purpose of acquiring the Agency's future administrative-engineering building. At such time that the administrative-engineering building is acquired by Zone 7, the Building Sinking Fund may be closed at the discretion of the Agency. The Renewal & Replacement System-Wide Improvements Reserve funds capital projects, including the renewal or replacement of water system infrastructure as it reaches the end of its useful life and system-wide improvements and upgrades such as those related to regulatory changes.

Minimum Level Funding for the Water Enterprise Renewal & Replacement and System-Wide Improvement Reserve shall be targeted at a minimum amount equal to 100% of the estimated capital budget for the fiscal year immediately succeeding the then-current budgeted fiscal year.

Target Level Not applicable

Maximum Level Zone 7 will not have a maximum target for this reserve, but rather the fund shall accumulate sufficient reserves to pay for future projects set forth in the AMP and the reserve balance shall be consistent with the reserve balances forecast in the most recent Asset Management Plan and the current Capital Improvement Plan. Funds on deposit in the Building Sinking Fund shall not be considered in connection with the calculation of minimum levels.

Events or Conditions Prompting the Use of the Fund Staff will recommend that assets be constructed, replaced, upgraded and/or repaired during the development and approval of the annual budget. Funds will be appropriated from the Water Enterprise Renewal & Replacement and System-Wide Improvement Reserve for renewal, replacement, or system-wide improvement capital projects.

WATER ENTERPRISE CAPITAL EXPANSION RESERVE

The Agency has employed a pay-as-you-go funding strategy to minimize debt borrowing and interest expenses, therefore capital reserve funds are accumulated to provide for current and future funding needs. Money in the Water Enterprise Capital Expansion Reserve is earmarked by the Board of Directors for capital projects to meet additional demands created by development. In furtherance of meeting such needs the Agency incurred certain non-discretionary financial obligations associated with capital expansion projects. Within this fund are three separate reserves to be used for:

1. A portion of the acquisition costs for the Agency's administrative-engineering building, (the "Building Sinking Fund");
2. The construction of improvements and enlargements to the South Bay Aqueduct (the "SBA Sinking Fund"); and
3. The Future Contractors' share of the South Bay Aqueduct construction (the "FCSBA Sinking Fund").

Contributions are made to the Building Sinking Fund at the discretion of the Agency and moneys therein are designated for the sole use of acquiring the Agency's administrative-engineering building.

At such time that the administrative-engineering building is acquired by Zone 7, the Building Sinking Fund may be closed at the discretion of the Agency. The Water Enterprise Capital Expansion Reserve is used for the funding of capital projects to accommodate development.

Minimum Level Funding for the Water Enterprise Capital Expansion Reserve shall be targeted at a minimum amount equal to 60% of the estimated non-discretionary amount budgeted annually.

Target Level Not applicable

Maximum Level Zone 7 will not have a maximum limitation for this fund, but rather the fund shall accumulate sufficient reserves to pay for future capital expansion projects as set forth in the capital improvement plan. The Agency may satisfy the minimum amount through the use of lines of credit, interim inter-fund borrowings or other financing arrangements. Funds on deposit in the Building Sinking Fund, SBA Sinking Fund and FCSBA Sinking Fund shall not be considered in connection with the calculation of minimum or maximum levels of the Water Enterprise Capital Expansion Reserve.

Events or Conditions Prompting the Use of the Fund Staff will recommend new assets to be constructed during the development and approval of the annual budget. Funds will be appropriated from the Water Enterprise Capital Expansion Reserve for expansion capital projects.

Periodic Review Dates for Balances Fund balances and projected capital projects will be reviewed by staff, the Board and the public during the development and approval of each budget.

FLOOD PROTECTION OPERATING RESERVE

The amounts in the Flood Protection Operating Reserve Fund will fluctuate depending on the receipt of property taxes and the annual operating expenses of Zone 7. The Flood Protection Operating Reserve is designated by the Board to maintain a reserve for current operations and to meet routine cash flow needs.

Money on deposit in this fund may be used for unanticipated operating expenses, daily cash flow requirements and emergencies.

Minimum Level Funding shall be targeted at a minimum amount equal to twenty percent (20%) of the Agency's budgeted total annual flood protection operating expenses, excluding capital.

Target Level Not-applicable

Maximum Level The maximum amount shall not exceed 50% of the total budgeted operating expenses, excluding capital.

Events or Conditions Prompting the Use of the Fund This fund may be routinely utilized by staff to cover temporary cash flow deficiencies caused by timing differences between revenue and expenses and/or shifts in the allocation of property taxes to Zone 7.

FLOOD PROTECTION CAPITAL PROJECT RESERVE

The Flood Protection Capital Project Reserve holds the balance of funds once the Flood Protection Operating Reserve Fund achieves levels that are consistent with this Policy on an annual basis. The amount on deposit in the Flood Protection Capital Project Reserve is earmarked by the Board of Directors for capital projects to meet Zone 7's flood protection needs. These capital projects are included in the current Flood Protection Capital Improvement Plan and in the Stream Management Master Plan and any related updates. Within the Flood Protection Project Reserve is a separate reserve to be used for a portion of the acquisition of the Agency's administrative-engineering building (the "Building Sinking Fund"). Contributions are made to this fund at the discretion of the Agency and money therein is designated for the purpose of acquiring the Agency's administrative-engineering building.

At such time that the administrative-engineering building is acquired by Zone 7, the Building Sinking Fund may be closed at the discretion of the Agency.

Minimum and Maximum Levels This Reserve will not be required to have a minimum or maximum balance.

Target Level Not applicable

Events or Conditions Prompting the Use of the Fund The Flood Protection Project Reserve may be used at any time for flood protection maintenance or improvement projects not related to development.

FLOOD PROTECTION AND STORM WATER DRAINAGE DEVELOPMENT IMPACT FEE PROJECT RESERVE

The purpose of the Flood Protection and Storm Water Drainage Development Impact Fee (DIF) Project Reserve is to ensure that Zone 7 is able to meet current and future needs for Flood Protection facilities and is intended to provide funding for any Flood Protection facilities required to mitigate the impacts of new development. This Reserve will hold development impact fees in connection with Flood Protection improvements related to development. Within this fund is a separate reserve to be used for a portion of the acquisition of the Agency's administrative-engineering building (the "Building Sinking Fund"). Contributions to the Building Sinking Fund are made at the discretion of the Agency and money therein is designated for the sole use of acquiring the Agency's administrative-engineering building. At such time that the administrative-engineering building is acquired by Zone 7 the Building Sinking Fund may be closed at the discretion of the Agency.

Minimum and Maximum Levels This Reserve will not be required to have a minimum or maximum balance.

Target Level Not-applicable

Events or Conditions Prompting the Use of the Fund This Reserve may be used at any time for flood protection projects required to mitigate the impacts of new development.

STATE WATER FACILITIES OPERATING RESERVE

The amounts in the State Water Facilities Operating Reserve Fund will fluctuate depending on the receipt of property taxes and the annual expenses of Zone 7 related to fixed charges for the State Water Project. The State Water Facilities Operating Reserve Fund is designated by the Board to maintain a reserve for fixed costs related to the State Water Project that are not tied to development and to meet routine cash flow needs. This fund may be used for unanticipated operating expenses, daily cash flow requirements and emergencies related to State Water Project fixed costs.

Minimum Level Funding shall be targeted at a minimum amount equal to fifty percent (50%) of the following year's projected annual operating expenses.

Target Level Not applicable

Maximum Level The maximum amount shall not exceed 100% of the following year's projected annual operating expenses.

Events or Conditions Prompting the Use of the Fund This fund may be routinely utilized by staff to cover temporary cash flow deficiencies caused by timing differences between revenue and expenses and extraordinary decreases unexpected increases in expenses.

VEHICLE REPLACEMENT RESERVE

The purpose of this reserve is to fund planned replacement of vehicles and equipment that have reached the end of their useful lives. This reserve is funded by direct charges to departments for actual maintenance and operation costs, interest earnings and net proceeds from the sale of replaced vehicles and equipment. The reserve will be drawn down as replacement vehicles and equipment are purchased. This reserve shall have no minimum, maximum or target.



WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

APPENDIX C
FINANCIAL
INVESTMENT POLICY

In Memoriam, Jim McGrail

Investment Policy

This policy is intended to provide guidelines for the prudent investment of surplus cash, reserves, trust funds and restricted monies and to outline a policy for maximizing the efficiency of the Agency's cash management system.

1.0 POLICY

It is the policy of the Board of Directors of the Zone 7 Water Agency ("Agency") to invest public funds in a manner which conforms to the four fundamental criteria in order of importance, as listed:

- Safety of Principal
- Liquidity
- Return on Investment, or Yield
- Diversity

2.0 INVESTMENT AUTHORITY

In accordance with Section 53600, et. seq., of the Government Code of the State of California, the authority to invest Agency public funds has been delegated to the Agency Treasurer/Assistant General Manager – Finance.

3.0 DELEGATION OF AUTHORITY

Responsibility for the investment program is specifically delegated by the Board to the Board-appointed Treasurer or, if no such appointment has been made, to the General Manager, hereafter referred to as Treasurer who will establish procedures for the investment program, consistent with this Investment Policy. The Treasurer shall be responsible for all transactions undertaken and shall establish a system of controls to regulate the activities, including procedures to execute investment transactions in the absence of the Treasurer.

4.0 STATEMENT OF OBJECTIVES

Per Section 53600.5 of the California Government Code, the primary objective of the Treasurer shall be to safeguard the principal of the funds under his or her control when investing public funds. The secondary objective will be to maintain liquidity as required by the Agency and the third objective is to obtain a return on investment of these funds.

In order of priority, the four fundamental criteria shall be followed in the investment of funds:

4.1 Safety of Principal – Investments shall be undertaken in a manner which first seeks to ensure the preservation of principal in the portfolio. Each investment transaction shall be entered only after taking into consideration the quality of the issuer, the underlying security or collateral, and diversification of the portfolio. Cash flow analysis will be conducted and utilized to avoid the need to sell securities prior to maturity. The Agency shall seek to preserve principal by mitigating both credit and market risk.

4.2 Liquidity – Every effort shall be made to ensure that the Agency's portfolio is sufficiently liquid to meet current and anticipated operating requirements. Cash flow analysis should be performed on an ongoing basis. Investments shall be made to ensure maturities are compatible with anticipated cash flow requirements.

4.3 Return on Investment, or Yield – Investments shall be undertaken to produce an investment return consistent with the primary objectives of Safety of Principal and Liquidity, and the Prudent Investor Standard.

4.4 Diversity – The objective is to avoid over concentration or exposure to any one issuer, instrument or maturity sector as specified in the Summary Table of Investment Guidelines and Eligible Securities herein, so that no single investment or class of investments can have a disproportionate impact on the total portfolio. This restriction does not apply to U.S. Treasury securities.

The investment portfolio shall be diversified and designed to attain a market average rate of return, taking into account cash flow requirements, striving to maintain an average portfolio maturity of approximately twenty-four (24) months. The Treasurer shall have an overall investment objective of holding investments to maturity and not investing with the objective of actively trading or trading for speculative purposes. However, the Treasurer may, from time to time, swap or sell securities in order to re-position securities to current coupon issues, maintain proper asset allocation limits, or to realize profits from market value appreciation.

The Treasurer may sell securities in order to protect the overall quality of the portfolio under the following circumstances:

- i) To raise cash to meet unanticipated cash-flow requirements
- ii) To swap old securities for current coupon securities
- iii) Maintain portfolio allocation limits
- iv) To avoid further erosion and loss of investment principal due to deterioration in credit-worthiness, as well as to respond to rapidly changing interest rate environments

5.0 SCOPE

The Investment Policy applies to all funds of the Agency including Water Enterprise Operations Funds, Renewal/ Replacement & System-Wide Improvement Fund, State Water Facilities Fund, Water Enterprise Capital Expansion Fund, Flood Control Operations Fund, Flood Protection Development Impact Fee Fund, Water Facilities Fund, Water Supply and Reliability Fund, Vehicle/Equipment Replacement Reserve Fund, Endowments, and all other funds held by the Agency. This investment policy does not apply to proceeds of notes, bonds or similar external financings which would be invested pursuant to bond indentures or State of California Government Code Section 53600, et. seq., as applicable.

6.0 PRUDENT INVESTOR STANDARD

All investments and evaluation of such investments shall be made with the Prudent Investor Standard as set forth in the California Government Code, Sections 53600.3 and 27000.3, which is defined as a standard of conduct whereby any person authorized to make investment decisions on behalf of the Agency acts with care, skill, prudence and diligence under the circumstances then prevailing, including but not limited to, the general economic conditions and the anticipated needs of the Agency with the aim to safeguard principal and meet the liquidity needs of the Agency.

7.0 PORTFOLIO ADJUSTMENTS Portfolio percentage limitations for each category of investment are applicable only at the date of purchase. Should an investment percentage be exceeded due to instances such as the fluctuation in overall portfolio size, or market valuation changes, the Treasurer is not required to sell the affected securities.

Should a security held in the portfolio be downgraded below the minimum rating criteria specified in this Investment Policy, the Treasurer shall sell such security in a manner designed to minimize losses. If the security is downgraded to a level that is less than investment grade, the Treasurer shall perform a credit analysis of such security to determine whether hold or sell the security. The Treasurer may elect to sell the security immediately to minimize losses in the event that an orderly disposition with minimal losses cannot be achieved. If the security matures within sixty (60) days of the rating decline, the Treasurer may choose not to sell the affected security.

The Treasurer shall note in a quarterly report securities which have been downgraded below investment grade and the status of disposition.

8.0 SAFEKEEPING AND CUSTODY

All securities transactions entered into by the Agency shall be conducted on a delivery-versus-payment (DVP) basis pursuant to a custodial safekeeping agreement. All securities owned by the Agency shall be held in safekeeping by an independent custodian designated by the Treasurer. Financial institutions providing safekeeping services shall provide reports or receipts which verify securities held in safekeeping.

9.0 REPORTING

The Treasurer shall submit a quarterly report within 30 days following the end of the quarter covered by the report to the Agency Board of Directors pursuant to California Government Code Section 53646 (b)(1). The report shall at a minimum provide information on compliance to this policy and on the composition of the portfolio for each fund with:

- Types of investment
- Issuer
- Maturity dates
- Par and dollar amount
- Market values including source of the valuation
- Rates of Interest
- Expected yields to maturity

In addition, the quarterly report shall also include a statement denoting the ability to meet the Agency's expenditure requirements for the next six (6) months.

10.0 INVESTMENT GUIDELINES AND ELIGIBLE SECURITIES

Section 53600, et seq., of the Government Code of the State of California prescribes the statutory requirement relating to investments by local treasurers, providing guidance on:

- i) Allowable Investments
- ii) Portfolio diversification requirements including proportional limits on investment types, maximum maturity, and minimum credit rating criteria.

The maximum maturity of any investment in the portfolios shall not exceed five (5) years except when specifically authorized by the Agency Board of Directors through resolution. When practical, the Treasurer shall solicit more than one quotation on each trade for the purpose of awarding investment trades on a competitive basis. The Agency will conform to the legal provisions set forth in the Government Code with further and more specific requirements about allowable investments and restrictions as detailed below:

10.1 US Treasury Bonds, Bills and Notes

Bills, notes and bonds issued by the U.S. Treasury which are direct obligations of the federal government.

- Maximum limit: 100% of the portfolio
- Maximum maturity of five (5) years
- Credit Requirement: N.A.

10.2 Federal Agency Bonds and Notes

Notes and bonds of federal agencies, government-sponsored enterprises and international institutions. Not all are direct obligations of the U. S. Treasury but may involve federal sponsorship and/or guarantees, in some instances.

- Maximum limit: 100% of the portfolio
- Maximum maturity of five (5) years
- Credit Requirement: N.A.

10.3 Banker's Acceptances

Bills of exchange or time drafts drawn on and accepted by a commercial bank, typically created from a letter of credit issued in a foreign trade transaction.

- Maximum limit: forty percent (40%) of the portfolio
- Issued by banks with total deposits of over one billion dollars (\$1,000,000,000)
- Maximum maturity of one-hundred eighty (180) days
- Twenty-five percent (25%) limitation to any one issuer
- Credit requirement: Ratings of A1, P1 or F1 or better by two of the three nationally-recognized rating agencies: S&P, Moody's, or Fitch, respectively. No rating may be lower than any of the rating listed above.
- Issued by banks from offices in the USA.

10.4 Commercial Paper

Commercial paper is defined as short-term, unsecured promissory notes issued by financial and non-financial companies to raise short-term cash. Financial companies issue commercial paper to support their consumer and/or business lending; non-financial companies issue for operating funds.

- Maximum limit: Twenty-five percent (25%) of the portfolio
- Maximum Maturity of two hundred seventy (270) days
- Maximum Issuer Exposure: Ten percent (10%) limitation on outstanding commercial paper to any one issuer
- Credit requirement: Ratings of A1, P1 or F1 or better by two of the three nationally-recognized rating agencies: S&P, Moody's, or Fitch, respectively. No rating may be lower than any of the rating listed above.
- Limited to paper issued by corporations organized and operating in the U.S. with total assets in excess of five hundred million (\$500,000,000), and having "A" or higher ratings for the issuer's debt, other than commercial paper, if any, as provided by national recognized rating agency.

10.5 Medium Term Corporate Notes

Corporate Bonds, Corporate Notes and Deposit Notes. Issuers are banks and bank holding companies, thrifts, finance companies, insurance companies and industrial corporations. These debt obligations that are generally unsecured.

- Maximum limit: Thirty percent (30%) of the portfolio
- Maximum maturity of five (5) years
- Maximum Issuer Exposure: No more than 5% of the portfolio shall be invested in any single issuer
- Credit Requirement: Must be rated A3, A- or AA or better by two of the three nationally-recognized rating agencies: S&P, Moody's, or Fitch, respectively. No rating may be lower than any of the ratings listed above.
- Eligibility: Limited to corporations organized and operating within the United States or depository institutions licensed by the United States or any State and operating within the United States.

10.6 Negotiable Certificates of Deposit

Issued by commercial banks and thrifts, and foreign banks (Yankee CD's).

- Maximum limit: Thirty percent (30%) of the portfolio, with five percent (5%) per issuer
- Maximum maturity of five (5) years
- Credit Requirement: Rated A, A2 or A (S&P, Moody's or Fitch, respectively)
- Issued by banks with total deposits of one billion dollars (\$1,000,000,000) or more

10.7 Certificates of Time Deposit

Time deposits, which are non-negotiable, are issued most commonly by commercial banks, savings and loans and credit unions with federal deposit insurance available for amounts up to two hundred-fifty thousand (\$250,000).

- Maximum limit: Thirty percent (30%) of the portfolio for all deposits
- Maximum maturity five (5) years
- On uncollateralized deposits, limited to FDIC insured amount of two hundred-fifty thousand (\$250,000)
- Amounts over FDIC insured amount must be fully collateralized
- Credit Requirement: For federally-insured deposits of two hundred-fifty thousand (\$250,000) or less, no minimum credit rating required. For deposits over two hundred-fifty thousand (\$250,000): Ratings of A, A2, or A or better by two of the three nationally-recognized rating agencies: S&P, Moody's, or Fitch, respectively.

Pursuant to Government Code 53637, the Agency is prohibited from investing in certificate of deposits of a state or federal credit union if a member of the legislative body or decision-making authority serves on the board of directors or committee.

10.8 Money Market Mutual Funds

Regulated by the SEC, these funds operate under strict maturity and diversification guidelines. These funds have no federal guarantee but are viewed as a very safe short-term cash investment.

- Maximum Maturity: N/A
- Maximum limit: Twenty percent (20%) of the portfolio
- Rating Requirement: Top ranking or highest letter and numerical rating provided by at least two nationally recognized statistical rating organizations
- Daily liquidity
- Net Asset Value (NAV) requirement: one dollar (\$1.00)
- Funds must be invested in securities and obligations permitted under the California Government Code

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

LAIF is a pooled investment fund overseen by the State Treasurer, which operates like a money market fund, but is for the exclusive benefit of governmental entities within the state. The maximum investment amount currently authorized by Local Agency Investment Fund (LAIF) is sixty-five million (\$65 million), which is subject to change. The LAIF is in trust in the custody of the State of California Treasurer. The Agency's right to withdraw its deposited monies from LAIF is not contingent upon the State's failure to adopt a State Budget.

- Maximum limit: 100% of the portfolio
- Maximum Maturity: N/A

10.10 Municipal Bonds and Notes

Municipal obligations issued by a municipality within the State of California and any other of the states in the union. This may include bonds, notes, warrants, or other evidences of indebtedness of a local agency within the state.

- Maximum limit: Forty percent (40%) of the portfolio
- Maximum maturity of five (5) years
- Must be issued by State of California or California local agency
- Credit Requirement: Prudent person standard applies

10.11 Repurchase Agreement

A repurchase agreement is a purchase of authorized securities with terms including a written agreement by the seller to repurchase the securities on a future date and price.

- Maximum limit: Twenty percent (20%) of the portfolio
- Maximum maturity of two hundred seventy (270) days
- Master Repurchase Agreement must be on file
- Limited to primary dealers or financial institutions rated "A" or better by Moody's or equivalent.
- Fully collateralized at market value of at least one hundred two percent (102%) with US government or federal agency securities

10.12 California Asset Management Program (CAMP)

- Maximum limit: Ten percent (10%) of the portfolio
- Rated highest short term rating by largest nationally recognized rating services

11.0 CREDIT RATING

Credit rating requirements for eligible securities as specified in this policy shall mean alpha numeric designations assigned by the following rating agencies:

- Moody's Investors Service
- Standard & Poor's Rating Services
- Fitch IBCA, Inc.
- Thompson Bank Watch

Please see Rating Description table herein, below.

12.0 MONITORING SAFETY AND LIQUIDITY

The Treasurer shall monitor on an ongoing basis investments for exposure to risk and credit deterioration to ensure primary objectives of safety of principal and liquidity are adhered to. Such matters shall be reported to the Agency Board of Directors as part of the Treasurer's quarterly and/or annual report.

13.0 ADMINISTRATION

The Treasurer may, at any time, establish more restrictive requirements for securities approved for investment as deemed appropriate in this Investment Policy. These restrictions may include, but are not limited to, higher credit ratings, lower percentage limits by security type or issuer, shorter maturities and additional collateral requirements for collateralized investments.

14.0 PURCHASING ENTITIES

Investments not purchased directly from the issuer will be purchased from institutions licensed by the State of California as a broker/dealer, including:

- National or California State Chartered Banks
- Federal or California Chartered Savings Institutions
- Brokerage firms designated as a primary government dealer by the Federal Reserve Bank
- Member of a federally-regulated securities exchange
- Institutions licensed by the State of California as a broker/dealer
- Federal or state savings institutions or associations as defined in Finance Code Section 5102

The Treasurer or designee will maintain a current and eligible list of reputable primary and regional dealers, brokers and financial institutions with whom securities trading and placement of funds are authorized. A strong capital base credit worthiness, and, where applicable, a broker/dealer staff experienced in transactions with California local governments are the primary criteria for inclusion on the Agency's approved list.

Approved dealers and brokers shall be limited to primary dealers or regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule) and which provide: proof of Financial Industry Regulatory Authority (FINRA) certification; proof of California State registration; and a completed Agency broker/dealer questionnaire. In addition, prior to approval and for every two years thereafter, approved dealers and brokers must provide: an audited financial statement; certification of receipt, review of and willingness to comply with the current Investment Policy; and certification of compliance with Rule G-37 of the Municipal Securities Rulemaking Board regarding limitations on political contributions to the Board of Directors of the Agency or to any candidate for these offices.

The Treasurer may remove a firm from the approved list at any time due to: any failure to comply with any of the above criteria; any failure to successfully execute a transaction; any change in broker/dealer staff; or any other action, event or failure to act which, in the sole discretion of the Treasurer is materially adverse to the best interests of the Agency.

15.0 INVESTMENT SECURITY

To ensure a high degree of internal control, the Agency shall comply with the following;

- All securities purchased from dealers and brokers shall be held in safekeeping by the Agency's custodial bank, a national bank, a State chartered bank or trust company, established for this purpose as someone other than the selling party of the security. Securities purchased will be covered by a trust or safekeeping receipt in a manner that establishes the Agency's ownership. All transactions completed on a delivery versus pay basis (DVP).
- All trade confirmation shall be received directly and reviewed for conformity to the original transaction by an individual other than the person originating the transaction. All trade confirmation must be an original; copies of confirmations are not allowed. Any discrepancies will be brought to the attention of the Treasurer.

16.0 FUND WIRE PROCEDURES

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

17.0 PERFORMANCE REVIEW AND INTERNAL CONTROL

The Treasurer or designee shall maintain a system of internal controls designed to ensure compliance with the Investment Policy and to prevent losses due to fraud, employee error, and misrepresentations by third parties or unanticipated changes in financial markets. The internal control includes; the activities of any subordinate officials acting on behalf of the Agency. Procedures should include references to individuals authorized to execute transactions or transfers, safekeeping agreements, repurchase agreements, wire transfer agreements, collateral/ depository agreements and banking services contracts, as appropriate. As part of the Comprehensive Annual Financial Report (CAFR) audit, the Agency's external auditor will perform a review of investment transactions to verify compliance with policies and procedures.

18.0 ETHICS AND CONFLICT OF INTEREST

All officers and employees involved in the investment process shall refrain from engaging in any personal business activity which could conflict with proper execution of investments subject to this Policy. Any material financial interests in financial institutions which do business with the Agency should be disclosed to the General Manager of the Agency. All individuals involved in the investment process are required to report all gifts and income in accordance with California State Law.

Summary Table of Investment Guidelines and Eligible Securities

Authorized Investments	Maximum % Holdings	Purchase Restrictions	Maximum Maturity	Credit Quality
US Treasury Bonds, Bills and Notes	100%	N/A	5 Years	N/A
Federal Agency Bonds & Notes	100%	N/A	5 Years	Full backing by the federal government of the United States of America
Bankers Acceptance	40%	25% limitation to a single issuer	180 days	"A-1/P-1" rated by S&P and Moody's or equivalent for domestic banks
Commercial Paper	25%	10% limitation to single issuer	270 days	"A-1/P-1" rated by S&P and Moody's or equivalent "AA" rated by S&P or equivalent for US branch of foreign banks
Medium Term Corporate Notes	30%	5% limitation to a single issuer. Limited to US licensed and operating corporations	5 years	"A3" rated by at least one nationally recognized rating service
Negotiable CD	30%	National or state chartered bank, S&L, or branch of foreign bank	5 years	"A" rated by one or more nationally rated credit rating agencies
Certificates of Time Deposit	30%	See California Government Code Section 53637	5 Years	Limit to FDIC Insured amount \$250,000, Fully collateralized on amounts over the insured amount in accordance with California Government Code
Money Market Mutual Funds	20%	Must maintain constant NAV of \$1.00	Daily Liquidity	Top ranking or highest letter and numerical by 2 of the 3 nationally recognized rating services Fund must be invested in securities and obligation permitted under Government Code
State of California, Local Agency Investment Fund ("LAIF")	100%	None	N/A	Subject to California Government Code Section 16429.1 limitations
Municipal Bonds & Notes	40%	State of California or California agencies	5 Years	Prudent person standard
Repurchase Agreements ("REPO")	20%	Limited to primary dealers or financial institutions rated "A" or better by Moody's	270 days	Fully collateralized (min 102% of funds borrowed with daily mark to market) with US Government or federal agency securities with maximum 5 year maturities
California Asset Management Program ("CAMP")	10%	N/A	Daily Liquidity	Highest short term rating by S&P, Moody's and/or Fitch

Rating Description Table

LONG TERM DEBT RATINGS			
Credit Quality	Moody's	S&P	Fitch
Strongest Quality	Aaa	AAA	AAA
Strong Quality	Aa1/Aa2/Aa3	AA+/AA/AA-	AA
Good Quality	A1/A2/A3	A+/A/A-	A
Medium Quality	Baa1/Baa2/Baa3	BBB+/BBB/BBB-	BBB
Speculative	Ba1/Ba2/Ba3	BB+/BB/BB-	BB
Low	B1/B2/B3	B+/B/B-	B
Poor	Caa	CCC+	CCC
Highly Speculative	Ca/C	CCC/CCC-/CC	CC

SHORT DEBT RATINGS			
Credit Quality	Moody's	S&P	Fitch
Strongest Quality	P-1	A-1+	F1
Strong Quality		A-1	
Good Quality	P-2	A-2	F2
Medium Quality	P-3	A-3	F3

Note: Investment Grade ratings applies to securities with at least a medium credit quality or higher by one of the nationally recognize rating organization, anything below the medium credit quality is non-investment grade.



APPENDIX D

DEBT POLICY

Debt Policy

1. STATEMENT OF CAPITAL FINANCING AND DEBT POLICY

On a biennial basis, Zone 7 Water Agency prepares a Capital Improvement Program Plan. The Plan is a 10-year Capital Plan for the Water System and historically a 5-year Capital Plan for Flood Protection, although the intent is to expand the planning horizon to ten years in the near future, as well. This Debt Policy provides the guidelines under which specific projects outlined in this biennial planning process and documented in the Capital Improvement Program Plan may be best financed. Debt issuance should be evaluated on a case-by-case basis as well as within the Agency's general debt management program. The Agency recognizes that changes in the capital markets and other unforeseen circumstances may require action deviating from this Debt Management Policy. In cases requiring any exception to this policy, approval from the Board will be required. The Debt Management Policy is not applicable to intra-agency borrowing.

2. GOALS AND OBJECTIVES

This Debt Policy formally establishes parameters for issuing debt and managing a debt portfolio, which encompasses the Agency's specific capital improvement needs, its ability to repay financial obligations, and the existing legal, economic, financial and debt market conditions. The policies outlined in the Debt Policy are not goals nor a list of rules to be applied toward the Agency's debt issuance; rather, these policies should be utilized as tools to ensure that adequate financial resources are available to support the Agency's long-term capital needs including:

- Evaluating critical debt issuance options
- Promoting sound financial management
- Providing accurate and timely financial disclosure
- Maintaining appropriate capital assets for present and future needs
- Ensuring best possible credit ratings for the debt issuance program

3. SCOPE

The guidelines established by this policy will govern the issuance and management of all debt incurred for short-term and long-term capital financing needs and cash flow needs. Staff recognizes that changes in the capital markets and other unforeseen circumstances may require exception(s) to this Policy, for which approval from the Board will be required. The Policy may be amended by the Board as it deems appropriate from time to time in the prudent management of the debt of the Agency. Any approval of debt by the Board that is not consistent with this Policy shall constitute a waiver of this Policy.

4. PAY AS YOU GO – VS – DEBT FINANCING

The Agency has historically relied on Water System and Flood Protection Reserves to fund capital projects on a pay-as-you-go basis. This approach can work well during periods in which net revenues are strong and capital funding needs are modest. The recent drought related drop in reserve levels, combined with an increased need for capital projects has created the need for external funding. The Agency, under the direction of the Board of Directors will retain full flexibility in determining the best funding approach on a case-by-case basis.

5. GOVERNING LAW

The Agency shall comply with all legal constraints and conditions imposed by federal, state and local law. The following section highlights the governing laws for the Agency debt administration:

A. DISTRICT ACT:

The Agency is authorized by the laws of the State of California to incur indebtedness, including Section 55-5 of the Alameda County Flood Control and Water Conservation District ("District Act"), created in 1957 pursuant to Section 36 of Act 205 of the California Uncodified Water Code. Act 205, the Alameda County Flood Control and Water Conservation District Act ("the District Act") was originally, adopted in 1949, which authorizes the Agency to acquire certain improvements ("the project") to the Agency's water system (the "Enterprise") and to finance the construction of such facilities through entering into installment sale agreements.

B. STATE OF CALIFORNIA LAW:

State law dictates certain requirements when issuing debt and certain statutes must be followed for any issuance or refunding.

C. FEDERAL TAX LAW:

The Agency shall issue and manage debt in accordance with the limitations and constraints imposed by federal tax law to maximize its ability to sell tax-exempt debt. Such constraints include, but are not limited to, private activity tests, power to acquire projects as in Section 55-5 of the District Act, spend-down tests and arbitrage rebate limitations.

D. SECURITIES LAW:

The Agency shall comply with the requirements of federal and state securities laws in offering Agency debt and the Agency shall comply with securities law requirements in providing ongoing disclosure to the securities markets.

6. PERMITTED DEBT BY TYPE

The Agency may legally issue both short-term and long-term debt, using the debt instruments described below. The Agency in consultation with the Agency Counsel, Bond Counsel and Financial Advisors, shall determine the most appropriate instrument for a proposed bond sale.

A. GENERAL OBLIGATION BONDS:

The Agency is empowered, under its District Act; to levy taxes on all taxable property within its boundaries for the purpose of paying its voter approved general obligation bonds, subject to certain limitations in the District Act, the California Revenue and Taxation Code and the California Constitution. The Agency is authorized to sell general obligation bonds under Section 55-13 of the District Act, subject to the approval of a two-thirds majority of those voters in a local election.

B. INSTALLMENT SALE AGREEMENT ("ISA"):

The Agency is authorized by the laws of the State of California, including Section 55-13 of the Alameda County Flood Control and Water Conservation District ("District Act"), to acquire certain improvements ("the project") to the Agency's water system (the "Enterprise") and to finance the construction of such facilities through the entering into installment sale agreements. An installment sale agreement can be a vehicle for public borrowing in one of two ways:

I. Joint Exercise of Powers Authority Revenue Bonds

In an installment sale revenue bond financing, a public entity (the "agency") enters into an installment sale agreement with a Joint Exercise of Agency Powers (a "JPA"), which in turn issues bonds payable solely from the installment sale payments the agency makes to the financing entity pursuant to the installment sale agreement. JPAs are authorized by California's Marks-Roos Local Bond Pooling Act of 1985 to issue revenue bonds and to lease and sell property, all in furtherance of the financing of public capital improvements.

II. Certificate of Participations

Certificates of Participation (“COPs”) provide debt financing through a lease or installment sale agreement. In a certificate of participation financing, a financing entity (a JPA, a nonprofit corporation or a for-profit corporation) enters into an installment sale agreement with the agency. Board action is sufficient to legally authorize a COP issue.

C. LOANS, LETTERS OF CREDIT, LINES OF CREDIT - STATE LOANS

The Agency may from time to time borrow through a loan with a commercial bank, Letter of Credit, Lines of Credit with a commercial bank, state revolving loan program (“SRF”) or other governmental agency. Each loan will have a specific purpose. Voter approval is not required for obtaining a loan if such loan is structured as an Installment Sale Agreement through a COP or JPA.

D. REFUNDING BONDS:

Refunding outstanding bonds that will provide a net economic benefit to the Agency is allowable within the federal tax law constraints.

7. METHODS OF SALE

The Agency will strive to maximize credit ratings, minimize financing costs, utilize best practices, while maintaining required flexibility in funding capital needs. The Agency will evaluate the use of all financial methods available including but not limited to structures listed above utilizing the most cost advantageous structures available while minimizing risk exposure and the Agency’s best interest at the time of the issuance of the debt:

A. COMPETITIVE SALE

The Agency may elect to sell bonds in the public market on a competitive basis depending on market conditions, required size of issuance and relative complexity of structure. The Bonds are marketed to a wide audience of investment banking (underwriting) firms. The underwriter is selected based on its bid for the securities. The Agency will award the sale of the competitively sold bonds on the basis of the lowest true interest cost basis. Pursuant to this policy, Agency staff are authorized to sign the bid form on behalf of the Agency fixing the interest rates on bonds sold on a competitive basis.

B. NEGOTIATED SALE

The Agency may elect to sell bonds in the public market on a negotiated basis depending on market conditions, required size of issuance and relative complexity of structure. The Agency staff selects the underwriter, or team of underwriters, of its securities in advance of the bond sale on the basis of responses to a competitive proposal process. Agency staff works with the underwriter to bring the issue to market and negotiates all rates and terms of the sale. In advance of the sale, Agency staff will determine compensation for and liability of each underwriter employed and the designation rules and priority of orders under which the sale itself will be conducted. Pursuant to this policy, the General Manager or designee (Treasurer/Assistant General Manager – Finance) will be authorized to sign the bond purchase agreement on behalf of the Agency, fixing the interest rates on bonds sold on a negotiated basis.

C. PRIVATE PLACEMENT

The Agency may elect to issue debt on a private placement basis. Such method shall be considered if it is demonstrated to result in cost savings or provide other advantages relative to other methods of debt issuance, or if it is determined that access to the public market is unavailable and timing considerations require that a financing be completed

8. TERMS AND CONDITIONS OF BONDS

The Agency will establish terms and conditions relating to the issuance of bonds and will direct the trustee in the management and investment of bond proceeds. General terms will be as follows:

A. TERM

All capital improvements as outlined in the Capital Improvement Program Plan will be financed for a period consistent with the useful life of the project, but in no event greater than forty years.

B. CAPITALIZED INTEREST

Certain types of financings will require interest be capitalized or funded from bond proceeds from the issuance date to the date at which the Agency has beneficial use and occupancy of the financed project. The Agency will comply with the requisite federal tax laws in the use of capitalized interest.

C. DEBT SERVICE RESERVE

The Agency may use, as needed, a debt service reserve fund to enhance the credit structure of the bonds and provide added security for bondholders. Debt service reserve funds are generally funded from bond proceeds and are limited in size by federal tax regulations.

D. DEBT SERVICE STRUCTURE

Debt service structures should be consistent with the useful life of the project financed generally, provide for overall level debt structure for the Agency on an aggregate basis, and consider the budgetary impact of incremental debt service.

E. CALL PROVISIONS

In general, the Agency's securities will include a call feature, which is no later than ten (10) years from the date of delivery of the bonds. The Agency will avoid the sale of non-callable bonds absent careful evaluation by the Agency of the value of the call option.

9. CREDIT CONSIDERATIONS

In order to ensure the highest possible credit rating the Agency may implement the following:

A. RATE COVENANT

The Agency will covenant to maintain rates at a minimum coverage level on outstanding debt required to ensure strong ratings. To the extent coverage ratios on outstanding debt fall below this minimum level, the Agency will use rate stabilization or other reserves to bring coverage to the minimum covenant level or implement necessary rate increases to bring coverage levels back to this minimum level. This minimum level can be determined based on rating considerations and market standards which may prevail at the time of issuance of the bonds.

B. ADDITIONAL BONDS TEST

The Agency will require a net revenue to annual debt service coverage level, among other tests, for the sale of additional bonds to ensure strong ratings.

C. RATE STABILIZATION FUND

The Agency will create and/or augment a rate stabilization fund in order to meet coverage ratios, address revenue volatility, avoid rate volatility to rate payers and ensure best credit outcome.

D. FINANCING STRUCTURES

The Agency will maintain a relatively straightforward debt structure which would result in best possible credit ratings, taking into consideration revenue volatility, capital needs and development cycles.

E. DEBT SERVICE RESERVE

When required a reserve fund equal to the least of ten percent (10%) of the original principal amount of the bonds, one hundred percent (100%) of the maximum annual debt service, and one hundred and twenty five percent (125%) of average annual debt service, or, if permitted, 10 % of the par value of bonds outstanding (the "Reserve Requirement") shall be funded from the proceeds of each series of bonds, subject to federal tax regulations and in accordance with the requirements of credit enhancement providers and/or rating agencies. The Agency may purchase reserve equivalents (i.e., the use of a reserve fund surety) when such purchase is deemed prudent and advantageous. Such equivalents shall be evaluated in comparison to cash funding of reserves on a net present value basis.

10. CREDIT ENHANCEMENTS

The Agency will consider the use of credit enhancement on a case-by-case basis, evaluating the economic benefit. Credit enhancement will only be used to the extent that the cost savings from the enhanced credit and improved pricing levels exceeds the cost of this enhancement on a net present value basis. Credit enhancements which may be used include but are not limited to the following: bond insurance and bank letters of credit.

A. BOND INSURANCE

The Agency shall have the authority to purchase bond insurance when such purchase is deemed prudent and advantageous. The predominant determination shall be based on such insurance being less costly than the present value of the difference in the interest on insured bonds versus uninsured bonds. The General Manager or designee will solicit quotes for bond insurance from interested providers, or in the case of a competitive sale submit an application for pre-qualification on insurance. In a negotiated sale, the General Manager, and/or Assistant General Manager – Finance or designee shall have the authority to select a provider whose bid is most cost effective and whose terms and conditions governing the guarantee are satisfactory for the Agency. The winning bidder in a competitive sale will determine whether it chooses to purchase bond insurance for the issue.

B. LETTER OF CREDIT

The Agency may enter into a letter of credit ("LOC") or liquidity agreement when such an agreement is deemed prudent and advantageous.

11. REFINANCING OUTSTANDING DEBT

The Agency will analyze outstanding bond issues for refunding opportunities as well as consider refunding opportunities presented by underwriters or financial advisors with the goal of reducing debt service payments and obtaining net present value savings on outstanding debt. The General Manager and/or designee will consider the following when analyzing refunding opportunities:

A. DEBT SERVICE SAVINGS

A minimum savings threshold goal of three percent (3%) of net present value savings as a percent of refunded bond principal amount must be obtained, unless specifically directed otherwise by the Board of Directors of the Agency or unless there are legal or restructuring reasons for defeasance. Refunding which produce a net savings of less than three percent (3%) will be considered on a case-by-case basis. The present value savings will be the net of all costs related to the refinancing.

B. RESTRUCTURING

The Agency may restructure debt without meeting the 3% savings threshold in order to:

- Address unanticipated revenue changes
- Mitigate irregular debt service payments
- Release reserve funds
- Remove unwanted bond covenants
- Achieve cost savings

C. TERM OF REFUNDING ISSUES

The Agency may refund bonds within the term of the originally issued debt. However, the Agency may consider maturity extension, when necessary to achieve a desired outcome, provided that such extension is legally permissible. The Agency may also consider shortening the term of the originally issued debt to realize greater savings. The remaining useful life of the financed facility and the concept of inter-generational equity should guide this decision.

D. ESCROW STRUCTURING

The Agency shall utilize the least costly securities available in structuring refunding escrows. The Agency will examine the viability of an economic versus legal defeasance on a net present value basis. A certificate will be required from a third party agent who is not a broker-dealer, stating that the securities were procured through an arms-length, competitive bid process (in the case of open market securities), that such securities were more cost effective than State and Local Government Obligations (SLGS), and that the price paid for the securities was reasonable within Federal guidelines. Under no circumstances shall an underwriter, agent or financial advisor sell escrow securities to the Agency from its own account.

E. ARBITRAGE

Arbitrage regulations apply to all of the Agency's tax exempt financings. The Agency shall take all necessary steps to optimize escrows and to avoid negative arbitrage in its refunding. Any resulting positive arbitrage will be rebated as necessary according to Federal guidelines.

12. CONTINUING DISCLOSURE COMPLIANCE

The Agency shall remain in compliance with SEC Rule 15c2-12 by filing its annual financial statements and other financial and operating data for the benefits of its bondholders within nine (9) months of the close of the fiscal year. The General Manager, or his designee (Treasurer/Assistant General Manager – Finance), shall be responsible for providing ongoing disclosure information to the Municipal Securities Rulemaking Board's ("MSRB") Electronic Municipal Market Access system ("EMMA"), the central depository designated by the SEC for ongoing disclosures by municipal issuers. The Agency will keep current with any changes to the administrative aspects of its filing requirements and the national repositories responsible for ensuring issuer compliance with the continuing disclosure regulations. In the event of a 'material event' requiring immediate disclosure, the Agency will work with its Dissemination Agent to ensure dissemination of the information to the appropriate disclosure notification parties.

This policy is intended to comply with Senate Bill 1029 codified as Government Code Section 8855 ("SB 1029"). SB 1029, signed by Governor Brown on September 12, 2016, requires California public agencies that issue debt to provide certain initial and ongoing disclosures to the California Debt and Investment Advisory Commission ("CDIAC") including:

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

13. COMPLIANCE WITH BOND CONVENANTS

Once the bonds are issued, the Agency, in addition to financial disclosure and arbitrage compliance, is responsible for verifying compliance with, all undertakings, covenants, and agreements of each bond issuance on an ongoing basis. This typically includes ensuring:

- Annual appropriation of revenues to meet debt service payments,
- Timely transfer of debt service payments to the trustee or paying agent,
- Compliance with insurance requirements,
- Compliance with rate covenants, where applicable,
- Compliance with all other bond covenants.

On an annual basis, all required debt-related schedules and footnotes shall be included in the Agency's Comprehensive Annual Financial Report (CAFR).

14. PROFESSIONAL SERVICES

The Agency will use a competitive process through a Request for Proposal (RFP) in the retention of professional services, however, if there are unforeseen events that necessitate immediate action including but not limited to redemption, defeasance, or restructuring to prevent the Agency from experiencing further losses, the General Manager or designee can select a consultant without using the competitive process or RFP process. The Agency will seek to retain the best possible financing professionals to ensure a high quality financing experience and result. The professional service selected by the Agency will help to develop a credit strategy, issue debt and ensure compliance with federal and state statutes, and Internal Revenue Code at the time of issuance as well as on a continuing basis:

A. RATING AGENCIES

The Agency will maintain an effective relationship with the one or more of the national statistical rating agencies, Moody's Investors Service, Standard & Poor's, Fitch Ratings, or Kroll Bond Rating Agency, in the issuance of debt as well as in the on-going monitoring of outstanding debt.

B. FINANCIAL OR MUNICIPAL ADVISORS

The Agency will comply with the Municipal Advisor Rule, ensuring the use of external Advisors in the sale of debt as well in managing relationships with the underwriting community. The Financial advisory services provided to the Agency shall include, but not limited to the following:

- Evaluation of risks and opportunities associated with debt issuance;
- Monitoring marketing opportunities;
- Evaluation of proposals submitted to the Agency by investment banking firms;
- Structuring and pricing;
- Preparation of request for proposals for other financial services (trustee and paying agent services, printing, credit facilities, remarketing agent services, etc.);
- Advice, assistance and preparation for presentations with rating agencies and investors;
- Assist in the preparation and review of legal and financing documents in coordination with the financing team in connection with the financing.

C. UNDERWRITERS

The Agency will utilize an underwriter in the sale of bonds on a competitive, negotiated or private placement basis. For a negotiated sale, the Agency will select an underwriter through a request for proposal process; basing the selection on best value for the Agency including capital structure, underwriting capabilities, demonstrated expertise and experience as well as proposed fees.

D. DISCLOSURE COUNSEL

The Agency will ensure complete and accurate disclosure of financial and legal condition in the issuance of debt. The Agency will also ensure full compliance with continuing disclosure requirements. The Agency will select, through a request for proposal process, and retain qualified and experienced counsel in achieving this objective of accurate, comprehensive and complete disclosure.

E. BOND COUNSEL

The Agency will select through a request for proposal process, and retain qualified and experienced legal counsel as representation for Bondholders as well as the Agency in structuring debt and ensuring legal accuracy and enforceability of bond documents, as well as compliance with all federal and state laws and the Internal Revenue Code.

F. TRUSTEE

The Agency will select through a request for proposal process the services of an external trustee to hold and invest and disburse financing proceeds. The trustee or fiscal agent will provide for debt service payments of all debt issued by the Agency. The Agency Treasurer or designee shall monitor the services rendered by the fiscal agent to ensure prompt and efficient service to bondholders.

15. INTERNAL CONTROL PROCEDURES

All debt transactions must be approved by the Board of Directors. The proceeds of bond sales will be invested until used for the intended project(s) in order to maximize utilization of the public funds. The investments will be made to obtain the highest level of 1) safety of principal, 2) liquidity, 3) diversity and 4) return on investment or yield, and may be held as cash. The Agency's investment guidelines and bond indentures will govern objectives and criteria for investment of bond proceeds. The Treasurer will oversee the investment of bond proceeds in a manner to avoid, if possible, and minimize any potential negative arbitrage over the life of the bond issuance, while complying with arbitrage and tax provisions.

Bond proceeds will be deposited and recorded in separate accounts to ensure funds are not comingled with other forms of Agency funds. The Agency's Trustee or Fiscal Agent will administer the disbursement of bond proceeds pursuant to each certain Indenture of Trust or Fiscal Agent Agreement, respectively. To ensure proceeds from bond sales are used in accordance with legal requirements invoices are submitted by the Facilities & Engineering Section and approved by the Accounting Section and Agency Treasurer/Assistant General Manager – Finance for payment. Requisition for the disbursement of bonds funds will be approved by the Agency's Treasurer / Assistant General Manager – Finance or designated alternate. Responsibility for general ledger reconciliations and records is segregated from the invoice processing, cash receipting, and cash disbursement functions.

The Finance and/or Accounting Section will be tasked with monitoring the expenditure of bond proceeds to ensure they are used only for the purpose and authority for which the bonds were issued and exercising best efforts to spend bond proceeds in such a manner that the Agency will meet one of the spend-down exemptions from arbitrage rebate. Tax-exempt bonds will not be issued unless it can be demonstrated that 85% of the proceeds can reasonably be expected to be expended within the three-year temporary period.

16. RECORD KEEPING

A copy of all debt-related records shall be retained at the Agency's offices. At minimum, these records shall include all official statements, bid documents, bond documents/transcripts, indentures, resolutions, trustee statements, leases, and title reports for each financing (to the extent available). To the extent possible, the Agency shall retain an electronic copy of each document, preferably in PDF or CD-ROM format.

17. REBATE POLICY AND SYSTEM

The Agency will accurately account for all interest earnings in debt related funds. These records will be designed to ensure compliance with all debt covenants and with State and Federal laws. The Agency will calculate and report interest earnings that relate to Internal Revenue Code rebate yield limits and arbitrage requirements.

18. PUBLIC STATEMENTS REGARDING FINANCIAL INFORMATION

Whenever the Agency makes statements or releases information relating to its finances to the public that are reasonably expected to reach investors and the trading markets, the Agency is obligated to ensure that such statements and information are complete, true, and accurate in all material respects.

19. TRAINING

The General Manager shall ensure that the members of the Agency staff involved in the initial or continuing disclosure process and the Board of Directors and staff are properly trained to understand and perform their responsibilities.

The General Manager shall arrange for disclosure training sessions conducted by the Agency's disclosure counsel which shall include education of these Disclosure Policies, the Agency's disclosure obligations under applicable federal and state securities laws, and the disclosure responsibilities and potential liabilities of members of the Agency's staff and members of the Board of Directors.

20. POLICY REVIEW

The General Manager, or designee (Treasurer/Assistant General Manager – Finance), will be responsible for regularly reviewing and updating this policy, and present any recommended revisions to the Board for adoption.



WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

APPENDIX E

POSITION DETAIL

In Memoriam, Carl Morrison

POSITION DETAIL, FISCAL YEARS 2014/15 - 2019/20

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Office of the General Manager							
General Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Assistant General Mgr, Engineering	1.00	1.00	1.00	1.00	0.00	1.00	-1.00
Assistant General Manager	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assistant General Mgr, Personnel	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Assistant General Mgr, Finance	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Executive Assistant	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Administrative Assistant	2.00	2.00	3.00	3.00	4.00	4.00	1.00
Communications Specialist	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Administrative Student Intern	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Geographic Info Sys Analyst	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Total	7.00	8.00	9.00	9.00	9.00	10.00	0.00
Finance							
Financial & Systems Services Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Accounting Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Auditor/Accountant	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Staff Analyst	1.00	2.00	2.00	2.00	2.00	2.00	0.00
Senior Procurement & Contracts Specialist	0.00	0.00	1.00	1.00	0.00	1.00	-1.00
Buyer I	0.00	1.00	1.00	1.00	2.00	2.00	1.00
Buyer II	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Account Clerk	3.00	2.00	2.00	2.00	2.00	2.00	0.00
Total	9.00	10.00	10.00	10.00	10.00	11.00	0.00
Employee Services							
Employee Services Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Human Resources Officer II	1.00	2.00	2.00	2.00	2.00	2.00	0.00
Communications Specialist	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Safety Technician II	2.00	2.00	0.00	0.00	0.00	0.00	0.00
Employee Services Technician	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Office Assistant	0.00	1.00	1.00	1.00	0.00	0.00	-1.00
Total	7.00	7.00	4.00	4.00	3.00	3.00	-1.00

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Water Quality							
Associate Engineer (Engineer III)	0.50	0.50	0.50	0.50	0.50	0.50	0.00
Assistant Engineer (Engineer II)	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Junior Water Resources Planner	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Quality Manager	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Quality Chemist	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Water Quality Lab Technician	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Total	7.50	7.50	7.50	7.50	7.50	7.50	0.00
Integrated Planning							
Manager of Integrated Water Resources	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Engineer/Geologist	2.00	1.00	1.00	1.00	1.00	1.00	0.00
Associate Engineer (Engineer III)	2.00	3.00	1.00	1.00	0.00	0.00	-1.00
Associate Water Resources Planner	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Junior/Assistant Civil Engineer	0.00	0.00	2.00	2.00	1.00	1.00	-1.00
Geographic Info Sys Analyst	0.00	0.00	1.00	1.00	0.00	1.00	-1.00
Junior Water Resources Planner	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Conservation Coordinator	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Administrative Student Intern	0.50	0.50	0.50	0.50	0.50	0.50	0.00
Total	7.50	8.50	9.50	9.50	6.50	7.50	-3.00
Facilities Engineering							
Manager of Engineering	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Principal Engineer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Engineer/Geologist	2.00	2.00	2.00	2.00	1.00	1.00	-1.00
Associate Engineer- Control System	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Associate Civil Engineer (Engineer III)	5.00	4.00	4.00	4.00	5.00	5.00	1.00
Assistant Civil Engineer	2.00	2.00	2.00	2.00	0.00	0.00	-2.00
Construction Inspector	0.00	0.00	1.00	1.00	0.00	1.00	-1.00
Water Resources Technician II	2.00	1.00	1.00	1.00	1.00	1.00	0.00
Total	14.00	12.00	13.00	13.00	10.00	11.00	-3.00

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Groundwater Protection							
Principal Engineer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Associate Engineer (Engineer III)	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Assistant Engineer (Engineer II)	1.00	1.00	1.00	1.00	0.00	0.00	-1.00
Construction Inspector	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Water Resources Technician II	3.00	4.00	4.00	4.00	4.00	4.00	0.00
Water Resources Engineer Trainee	0.00	0.50	0.50	0.50	0.50	0.50	0.00
Total	7.00	8.50	7.50	7.50	7.50	7.50	0.00
Operations							
Production Manager	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Operations Manager	1.00	1.00	1.00	1.00	0.00	1.00	-1.00
Water Facilities Supervisor	3.00	3.00	3.00	3.00	3.00	3.00	0.00
Secretary	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Safety Technician II	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Water Plant Operator II	0.00	0.00	0.00	0.00	2.00	2.00	2.00
Water Plant Operator III	19.00	19.00	20.00	20.00	20.00	20.00	0.00
Total	24.00	24.00	27.00	27.00	28.00	29.00	1.00
Maintenance							
Maintenance Manager	1.00	1.00	1.00	1.00	0.00	1.00	-1.00
Facilities Maint & Constr Supervisor	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Buyer I	0.00	0.00	0.00	0.00	1.00	1.00	1.00
Maintenance Coordinator	1.00	1.00	1.00	1.00	0.00	0.00	-1.00
Electrician	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Transportation & Supply/ Fleet Coordinator	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Instrument Technician II	4.00	4.00	4.00	4.00	4.00	4.00	0.00
Lead Plant Mechanic	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Plant Mechanic	4.00	4.00	4.00	4.00	4.00	4.00	0.00
Plant Maint Laborer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Water Resources Technician II	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Construction Maintenance Laborers	2.00	2.00	2.00	2.00	2.00	2.00	0.00
Total	19.00	20.00	20.00	20.00	19.00	20.00	-1.00

	FY 14-15 Budget	FY 15-16 Budget	FY 16-17 Budget	FY 17-18 Budget	FY 18-19 Budget	FY 19-20 Budget	Change
Principal Engineer	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Senior Engineer	0.00	1.00	1.00	1.00	0.00	0.00	-1.00
Associate Engineer (Engineer III)	2.00	1.00	1.00	1.00	1.00	1.00	0.00
Assistant Engineer (Engineer II)	1.00	2.00	2.00	2.00	2.00	2.00	0.00
Junior/Assistant Engineer	0.00	0.00	0.00	0.00	2.00	2.00	2.00
Water Resources Technician II	1.00	1.00	2.00	2.00	2.00	2.00	0.00
Flood Protection	5.00	6.00	7.00	7.00	8.00	8.00	1.00
Agency Total	107.00	111.50	114.50	114.50	108.50	114.50	-6.00



WATER SUPPLY • WATER QUALITY • FLOOD PROTECTION

APPENDIX F

ACRONYMS AND GLOSSARY OF TERMS

In Memoriam, Kevin Hulme

Acronyms

This list of acronyms was assembled to provide a more thorough understanding of this publication and to augment the many industry-specific terms and titles employed in the daily work of the Agency.

ACH	Automated Clearing House	DDW	Division of Drinking Water
ACERA	Alameda County Employees Retirement Association	DHCCP	Delta Habitat Conservation and Conveyance Program
ACMEA	Alameda County Management Employees Association	DMS	Document Management System
ACWA	Association of California Water Agencies	DWR	Department of Water Resources
AF	Acre-Foot	DIF	Development Impact Fee
AMP	Asset Management Program	DVWTP	Del Valle Water Treatment Plant
AWWA	American Water Works Association	EAP	Employee Assistance Program
CAD	Computer-Aided Design	EPA	Environmental Protection Agency
CAFR	Comprehensive Annual Financial Report	FCC	Federal Communication Commission
CCF	One Hundred Cubic Feet	FEMA	Federal Emergency Management Agency
CCTV	Closed Circuit Television	FIRMS	Flood Insurance Rate Maps
CEQA	California Environmental Quality Act	FSA	Flexible Spending Account
CIP	Capital Improvement Plan	FTE	Full-Time Equivalent
COLAS	Cost-of-Living Adjustments	GAAP	Generally Accepted Accounting Principles
COP	Certificates of Participation	GASB	Governmental Accounting Standards Board
CPI	Consumer Price Index	GFOA	Government Finance Officers Association
CSMFO	California Society of Municipal Finance Officers	GHG	Green House Gas
CUWA	California Urban Water Agencies	GIS	Geographic Information System
CY	Calendar Year	GPS	Global Positioning System

HMI	Human Machine Interface	PPWTP	Patterson Pass Water Treatment Plant
HP	Horse Power	PVC	Polyvinyl Chloride
HVAC	Heating, Ventilation and Air Conditioning	RAC	Replenishment Assessment Charge
I/O	Input/Output	RDA	Redevelopment Agency
IP	Internet Protocol	RFP	Request for Proposal
IRWMP	Integrated Regional Water Management Plan	ROW	Right-of-Way
IS	Information Systems	RTU	Remote Terminal Unit
IVR	Interactive Voice Response	SCADA	Supervisory Control and Data Acquisition
KW	Kilowatt	SCIF	State Compensation Insurance Fund
LAFCO	Local Agency Formation Commission	SEIU	Service Employees International Union
MOU	Memorandum of Understanding	SWP	State Water Project
MWQI	Municipal Water Quality Investigations	SWSC	Supplemental Water Supply Charge
NEPA	National Environmental Protection Act	UPBR	United States Bureau of Reclamation
NPDES	National Pollutant Discharge Elimination System	USGS	United States Geological Survey
O&M	Operations and Maintenance	UWMP	Urban Water Management Plan
OPEB	Other Post-Employment Benefits	VFD	Variable Frequency Drive
OSHA	Occupational Safety & Health Administration	VMS	Virtual Memory System
PDR	Preliminary Design Report	VOIP	Voice Over Internet Protocol
PEPRA	Public Employee Pension Reform Act	VPN	Virtual Private Network
PLC	Programmable Logic Controller	WAN	Wide Area Network
PPO	Preferred Provider Organization	WTP	Water Treatment Plan
		WQL	Water Quality Laboratory

GLOSSARY OF TERMS

The Zone 7 Two-Year Budget, Fiscal Years 2016-18 contains terminology that is generally unique to the water industry, public finance and budgeting. With this in mind this glossary of terms was assembled for the readers benefit.

ACCRETION: Adjustment of the difference between the prices of a bond bought at an original discount and the par value of the bond.

ACCRUAL BASIS OF

ACCOUNTING: The basis of accounting under which transactions are recognized when they occur, regardless of the timing of cash receipts and disbursements.

ACRE FOOT (AF): The volume of water that will cover one acre to a depth of one foot. One acre foot equals 325,850 gallons. It is estimated that one half an acre foot serves a typical private residence for one year.

ACTIVITIES: The major programs and projects performed by an organizational unit.

AGENCIES: Federal agency securities and/or Government-sponsored enterprises (GSEs), also known as U.S. Government instrumentalities. Securities issued by Government National Mortgage Association (GNMA) are considered true agency securities, backed by the full faith and credit of the U.S. Government. GSEs are financial intermediaries established by the federal government to fund loans to certain groups of borrowers, for example homeowners, farmers and students and are privately owned corporations with a public purpose. The most common GSEs are Federal Farm Credit System Banks, Federal Home Loan Banks, Federal Home Loan Mortgage Association, and Federal National Mortgage Association.

AMORTIZATION: Accounting procedure that gradually reduces the cost value of a limited life or intangible asset through periodic charges to income. For fixed assets, the term used is "depreciation". It is common practice to amortize any premium over par value paid in the purchase of preferred stock or bond investments.

APPRECIATION: Increase in the value of an asset such as a stock bond, commodity or real estate.

APPROPRIATION: An amount of money in the Budget, authorized by the Board of Directors, for expenditure, obligation and reserves within organizational units for specific purposes.

AQUIFER: An underground layer of water bearing permeable rock or unconsolidated materials (gravel, sand, silt) from which groundwater can be extracted.

ARBITRAGE: The difference between the interest paid on the tax-exempt securities and the interest earned by investing the security proceeds in higher-yielding taxable securities. IRS regulations govern arbitrage on the proceeds from issuance of municipal securities.

ASKED PRICE: The price a broker/dealer offers to sell securities.

ASSET: Anything of value such as an area of land, or a building, or an item of plant or equipment or infrastructure that provides service potential or future economic benefits over a period greater than one year and has a cost that is not "immaterial" (at least \$10,000).

Assets are typically classified as either physical, "financial" (e.g., cash, stocks, debt instruments), or "intangible" (e.g., intellectual property, goodwill).

ASSET BACKED: A type of security that is secured by receivables, such as credit card and auto loans. These securities typically pay principal and interest monthly.

ASSET MANAGEMENT: A set of systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems, their associated performance, risks and expenditures over their life cycles for the purpose of achieving its organizational strategic plan.

AUDIT: A comprehensive investigation of the manner in which the government's resources were actually utilized. A financial audit is a review of the accounting system and financial information to determine how government funds were spent and whether expenditures were in compliance with the legislative body's appropriations.

BALANCE SHEET: A financial statement that discloses the assets, liabilities, and fund equity of a specific fund at a specific date.

BANKERS' ACCEPTANCE (BA):

A draft or bill of exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer. This money market instrument is used to finance international trade.

BASIS POINT: One-hundredth of one percent (i.e., 0.01%).

BENCHMARK: A comparative base for measuring the performance or risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio's investment.

BID PRICE: The price a broker/dealer offers to purchase securities.

BOARD OF DIRECTORS: The governing body of Zone 7 Water Agency. The board is made up of seven directors elected at large from the communities of Livermore, Pleasanton, and Dublin.

BOND: A written promise to pay a sum of money on a specific date at a specific interest rate. The interest payments and the repayment of the principal are authorized in a District bond resolution. The most common types of bonds are general obligation bonds and revenue bonds. These are frequently used for construction of large capital projects such as buildings, streets, etc.

BOND: A financial obligation for which the issuers promises to pay the bondholder a specified stream of future cash flows, including periodic interest payments and a principal repayment.

BOOK VALUE: The value at which a debt security is shown on the holder's balance sheet. Book value is acquisition cost less amortization of premium or accretion of discount.

BROKER: A broker acts as an intermediary between a buyer and seller for a commission and does not trade for his/her own risk and account or inventory.

BUDGET: A financial plan for a specific period of time that matches all planned revenues and expenditures with various services. Zone 7 uses a fiscal year beginning each July 1 and ending each June 30 for budgetary and financial reporting purposes.

BUDGETARY CONTROL: The control or management of a governmental unit or enterprises in accordance with an approved budget for the purpose of keeping expenditures within the limitations of available appropriations and available revenues.

BUREAU OF RECLAMATION (USBR), AND FORMERLY THE UNITED STATES RECLAMATION SERVICE: An agency under the U.S. Department of the Interior, which oversees water resource management, specifically as it applies to the oversight and/or operation of numerous diversion, delivery, and storage projects it built throughout the western United States for irrigation, water supply, and attendant hydroelectric power generation.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA): A California statute passed in 1970, shortly after the United States federal government passed the National Environmental Policy Act (NEPA), to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts.

CALIFORNIA STATE WATER PROJECT (SWP): The world's largest publicly built and operated water and power development and conveyance system. The original purpose of the project was to provide water for arid Southern California which lacks adequate local water resources to provide for the growth of that region.

CALIFORNIA WATER FIX: The California Natural Resources Agency has been working with state and federal agencies since 2006 on a plan to secure California's water supplies and improve the Sacramento-San Joaquin Delta's (Delta) ecosystem. In 2015, Governor Jerry Brown announced a major change for the project formerly known as the Bay Delta Conservation Plan (BDCP). The lead state and federal agencies shifted their focus from a habitat conservation plan to permitting, design, and construction of a Delta conveyance facility (California WaterFix), with the majority of ecosystem restoration work now occurring under a separate program, California EcoRestore. California WaterFix maintains the co-equal goals of increasing statewide water supply reliability and, in coordination with California EcoRestore, facilitating increased habitat restoration in the Delta.

CALLABLE SECURITIES: A security that can be redeemed by the issuer before the scheduled maturity date.

CALL PROVISIONS: The terms of the bond contract giving the issuer the right to redeem all or a portion of an outstanding issue of bonds prior to their stated dates of maturity at a specific price, usually at or above par.

CAPITAL EQUIPMENT: Fixed assets such as vehicles, equipment, computers, furniture, technical instruments, etc. which have a life expectancy of more than one year.

CAPITAL IMPROVEMENT

PROGRAM (CIP): A long-range plan of Zone 7 for the construction, rehabilitation and modernization of Zone 7-owned and operated infrastructure.

CAPITAL OUTLAY: Expenditures which result in the acquisition of or in addition to, fixed assets including land, buildings, improvements, machinery and equipment.

CAPITALIZED INTEREST: A portion of the proceeds of an issue which is set aside to pay interest on the securities for a specified period of time. Interest is commonly capitalized for the construction period of the project.

CASH EQUIVALENTS (CE): Highly liquid and safe instruments or investments that can be converted into cash immediately. Examples include bank accounts, money market funds, and Treasury bills.

CASH FLOW: An analysis of all changes that affect the cash account during a specified period.

CERTIFICATE OF DEPOSIT (CD): A time deposit with a specific maturity evidenced by a certificate. Large-denomination CD's are typically negotiable.

CHLORINATION: Chlorination is the process of adding the element chlorine to water for oxidation and disinfection. Chlorine systems can use chlorine gas, hypochlorite solution, or onsite hypochlorite generation.

COLLATERAL: Securities, evidence of deposit or other property which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

COLLATERALIZED MORTGAGE OBLIGATION (CMO):

A type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

COMMERCIAL PAPER: Short-term, unsecured, negotiable promissory notes of corporations.

COMPETITIVE SALE: A sale of securities by an issuer in which underwriters or syndicates of underwriters submit sealed bids to purchase the securities in contrast to a negotiated sale.

COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR):

The official annual financial report for the Agency. It includes combined statements and basic financial statements for each individual fund and account group prepared in conformity with Generally Accepted Accounting Principles (GAAP).

CONTINUING DISCLOSURE:

The principle that accurate and complete information material to the transaction which potential investors would be likely to consider material in making investment decisions with respect to the securities be made available on an ongoing basis.

CONVEYANCE SYSTEM: The combination of assets used to deliver an adequate supply of the selected material (water) from one point to another. The conveyance can include piping, pumps, controls (valves), and storage.

CORPORATE NOTE: Debt instrument issued by a private corporation.

COUPON: The annual rate at which a bond pays interest.

CREDIT ENHANCEMENT: Credit support purchased by the issuer to raise the credit rating of the issue. The most common credit enhancements consist of bond insurance, direct or standby letters of credit, and lines of credit.

CREDIT RATINGS: A grade given to a debt instrument that indicates its credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these

CREDIT RISK: The risk that an obligation will not be paid and a loss will result due to a failure of the issuer of a security.

CUSIP: Stands for Committee on Uniform Securities Identification Procedures. A CUSIP number identifies most securities, including: stocks of all registered U.S. and Canadian companies, and U.S. government and municipal bonds. The CUSIP system—owned by the American Bankers Association and operated by Standard & Poor's—facilitates the clearing and settlement process of securities. The number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security.

CURRENT YIELD: The annual interest on an investment divided by the current market value. Since the calculation relies on the current market value rather than the investor's cost, current yield is unrelated to the actual return the investor will earn if the security is held to maturity.

CUSTODIAN: A bank or other financial institution that keeps custody of stock certificates and other assets.

DEALER: A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his/her own risk and account or inventory.

DEBENTURES: A bond secured only by the general credit of the issuers.

DEBT SERVICE FUND: Established to account for annual property tax levies and certain other revenues, primarily interest on investments, which are used for payment of principal and interest of bond issues.

DEBT SERVICE RESERVE FUND: The fund in which moneys are placed which may be used to pay debt service if pledged revenues are insufficient to satisfy the debt service requirements.

DETENTION BASINS: Shallow "dry" basins are seasonal and dry up in summer. Deeper "wet" basins are ponds that hold water all year round.

DEPRECIATION: The reduction in value of a long lived asset from use or obsolescence. The decline in value is recognized by a periodic allocation of the original cost of the asset to current operations on an income statement.

DELIVERY SYSTEM: The piping, valves, and related assets that convey water from one point in the operation to another. For example, a delivery system can take water from the intake to the plant or from plant to the customer.

DELIVERY VERSUS PAYMENT (DVP): Delivery of securities with a simultaneous exchange of money for the securities.

DERIVATIVES: A financial instrument that is based on, or derived from, some underlying asset, reference date, or index.

DERIVATIVES: A financial product whose value is derived from some underlying asset value.

DIRECT ISSUER: Issuer markets its own paper directly to the investor without use of an intermediary.

DISCOUNT: The difference between the cost of a security and its value at maturity when quoted at lower than face value.

DISTRICT: Refers to the Alameda County Flood Control and Water Conservation District, of which Zone 7 is one of the designated service areas. Zone 7 provides water and flood control services.

DIVERSIFICATION: Dividing investment funds among a variety of securities offering independent returns and risk profiles.

DURATION: A measure of the timing of the cash flows, such as the interest payments and the principal repayment, to be received from a given fixed-income security. This calculation is based on three variables: term to maturity, coupon rate, and yield to maturity. Duration measures the price sensitivity of a bond to changes in interest rates.

ESCROW: A fund established to hold moneys pledged and to be used to pay debt service on an outstanding issue.

FACE VALUE: The principal amount owed on a debt instrument. It is the amount on which interest is computed and represents the amount that the issuer promises to pay at maturity.

FAIR VALUE: The amount at which a security could be exchanged between willing parties, other than in a forced or liquidation sale. If a market price is available, the fair value is equal to the market value.

FANNIE MAE: Trade name for the Federal National Mortgage Association (FNMA), a U.S. Government sponsored enterprise.

FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC): A federal agency that provides insurance on bank deposits, guaranteeing deposits to a set limit per account, currently \$250,000.

FEDERAL FARM CREDIT BANK (FFCB): Government-sponsored enterprise that consolidates the financing activities of the Federal Land Banks, the Federal Intermediate Credit Banks and the Banks for Cooperatives. Its securities do not carry direct U.S. government guarantees.

FEDERAL FUNDS RATE: The rate of interest at which Federal funds are traded. This rate is considered to be the most sensitive indicator of the direction of interest rates, as it is currently pegged by the Federal Reserve through open-market operations.

FEDERAL GOVERNMENT

AGENCY SECURITIES: Federal Agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises.

FEDERAL HOME LOAN BANKS

(FHLB): Government sponsored enterprise (currently made up of 12 regional banks) that regulates and lends funds and provides correspondent banking services to member commercial banks, thrift institutions, credit unions and insurance companies. Although the banks operate under federal charter with government supervision, the securities are not guaranteed by the U. S. Government.

FEDERAL HOME LOAN MORTGAGE CORPORATION

(FHLMC): Government sponsored enterprise that helps maintain the availability of mortgage credit for residential housing. FHLMC finances these operations by marketing guaranteed mortgage certificates and mortgage participation certificates. Its discount notes and bonds do not carry direct U.S. government guarantees.

FEDERAL NATIONAL MORTGAGE ASSOCIATION

(FNMA): Government sponsored enterprise that is the largest single provider of residential mortgage funds in the United States. FNMA is a private stockholder-owned corporation. The corporation's purchases include a variety of adjustable mortgages and second loans, in addition to fixed-rate mortgages. FNMA's securities are also highly liquid and are widely accepted.

FEDERAL OPEN MARKET

COMMITTEE (FOMC): A committee of the Federal Reserve Board, which establishes monetary policy and executes it through temporary and permanent changes to the supply of bank reserves.

FEDERAL RESERVE SYSTEM:

The central bank of the U.S. which consists of a seven member Board of Governors, 12 regional banks and about 5,700 commercial banks that are members.

FED WIRE: A wire transmission service established by the Federal Reserve Bank to facilitate the transfer of funds through debits and credits of funds between participants within the Fed system.

FREDDIE MAC: Trade name for the Federal Home Loan Mortgage Corporation (FHLMC), a U.S. government sponsored enterprise.

FUND: A sum of money or other resources, such as taxes, charges, fees, etc., established for conducting specified operations for attaining certain objectives. Funds are frequently under specific limitations.

FUND ACCOUNTING: A governmental account system which is organized and operated on a fund basis.

FUND BALANCE: Fund balance is the excess of assets over liabilities. It is typically divided into three categories. Fund balance may be categorized as (1) reserved – indicating that there are legal restrictions governing the future expenditures, (2) non-discretionary-indicating that the Board of Directors expects to expend it for certain purposes, or (3) discretionary – indicating it is available for expenditures for general governmental purposes.

FLOCCULATION: A process that applies gentle stirring to bring suspended particles together so that they will form larger, more settleable clumps called floc.

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

(GAAP): Uniform minimum standards of, and guidelines for, external financial accounting and reporting. They govern the form and content of the basic financial statements of an entity. GAAP provides a standard by which to measure financial presentations. The primary authoritative statement on the application of GAAP to the State and local governments are Government Accounting Standards Board (GASB) pronouncements.

GINNIE MAE: Trade name for the Government National Mortgage Association (GNMA), a direct obligation bearing the full faith and credit of the U.S. Government.

GOVERNMENT ACCOUNTING STANDARDS BOARD (GASB):

A standard-setting body, associated with the Financial Accounting Foundation, which prescribes standard accounting practices for governmental units.

GOVERNMENT FINANCE OFFICERS ASSOCIATION

(GFOA): represents public finance officials throughout the United States and Canada. The GFOA's mission is to enhance and promote the professional management of governmental financial resources by identifying, developing, and advancing fiscal strategies, policies, and practices for the public benefit

GRANT: A contribution by a government or other organization to support a particular function. Grants may be classified as either categorical or block depending upon the amount of discretion allowed the grantee.

GUARANTEED INVESTMENT CONTRACTS (GICS): An agreement acknowledging receipt of funds, for deposit, specifying terms for withdrawal, and guaranteeing a rate of interest to be paid.

INTEREST RATE: The annual yield earned on an investment, expressed as a percentage.

INTEREST RATE RISK: The risk of gain or loss in market values of securities due to changes in interest-rate levels. For example, rising interest rates will cause the market value of portfolio securities to decline.

INTERFUND TRANSFERS: Amounts transferred from one fund to another, usually to reimburse the receiving fund for services performed for the transferring fund.

INVESTMENT AGREEMENTS: A contract providing for the lending of issuer funds to a financial institution which agrees to repay the funds with interest under predetermined specifications.

INVESTMENT GRADE (LONG TERM RATINGS): The minimum, high quality ratings for long term debt such as corporate notes. Investment Grade ratings are as follows: A3 (Moody's), A- (S&P), and A- (Fitch).

INVESTMENT PORTFOLIO: A collection of securities held by a bank, individual, institution or government agency for investment purposes.

LETTERS OF CREDIT: A bank credit facility wherein the bank agrees to lend a specified amount of funds for a limited term.

LIABILITIES: Obligations incurred in past or current transactions requiring present or future settlement.

LINE ITEMS: Expenditure classifications established to account for budget appropriations approved.

LIQUIDITY: A liquid asset is one that can be converted easily and rapidly into cash with minimum risk of principal.

LOCAL AGENCY INVESTMENT FUND (LAIF): An investment pool sponsored by the State of California and administered/managed by the State Treasurer. Local government units, with consent of the governing body of that agency, may voluntarily deposit surplus funds for the purpose of investment. Interest earned is distributed by the State Controller to the participating governmental agencies on a quarterly basis.

LOCAL AGENCY INVESTMENT POOL: A pooled investment vehicle sponsored by a local agency or a group of local agencies for use by other local agencies.

MANDATED COST: Is a cost, responsibility, action or procedure that is imposed by one sphere of government on another by way of a constitutional, legislative, administrative, executive or judicial action as a direct order.

MARKET RISK: The risk that the value of securities will fluctuate with changes in overall market conditions or interest rates. Systematic risk of a security that is common to all securities of the same general class (stocks, bonds, notes, money market instruments) and cannot be eliminated by diversification (which may be used to eliminate non-systematic risk).

MARKET VALUE: The price at which a security is currently being sold in the market. See FAIR VALUE.

MASTER REPURCHASE AGREEMENT: A written contract covering all future transactions between the parties to repurchase agreements and reverse repurchase agreements that establish each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller-borrower.

MATURITY: The date that the principal or stated value of a debt instrument becomes due and payable.

MEDIUM-TERM CORPORATE NOTES (MTNS): Unsecured, investment-grade senior debt securities of major corporations which are sold in relatively small amounts either on a continuous or an intermittent basis. MTNs are highly flexible debt instruments that can be structured to respond to market opportunities or to investor preferences.

MODIFIED ACCRUAL BASIS OF ACCOUNTING: The basis of accounting under which revenues are recognized when measurable and available to pay liabilities and expenditures are recognized when the liability is incurred except for interest on long-term debt which is recognized when due.

MODIFIED DURATION: The percent change in price for a 100 basis point change in yields. This is a measure of a portfolio's or security's exposure to market risk.

MONEY MARKET: The market in which short term debt instruments (Treasury Bills, Discount Notes, Commercial Paper, Banker's Acceptances and Negotiable Certificates of Deposit) are issued and traded.

MORTGAGED BACKED

SECURITIES: A type of security that is secured by a mortgage or collection of mortgages. These securities typically pay principal and interest monthly.

MUNICIPAL BONDS: Debt obligations issued by states and local governments and their agencies, including cities, counties, government retirement plans, school Agencies, state universities, sewer agency, municipally owned utilities and authorities running bridges, airports and other transportation facilities

MUTUAL FUND: An entity that pools money and can invest in a variety of securities which are specifically defined in the fund's prospectus.

NEGOTIABLE CERTIFICATE OF

DEPOSIT: A large denomination certificate of deposit which can be sold in the open market prior to maturity.

NEGOTIATED SALE: A method of sale in which the issuer chooses one underwriter to negotiate terms pursuant to which such underwriter will purchase and market the bonds.

NET PORTFOLIO YIELD:

Calculation in which the 365-day basis equals the annualized percentage of the sum of all Net Earnings during the period divided by the sum of all Average Daily Portfolio Balances.

NATIONALLY RECOGNIZED RATING ORGANIZATION

(NRSRO): is a credit rating agency that issues credit rating that U.S Securities and Exchange Commission permits other financial firms to use for certain regulatory purposes.

OBJECT CLASSIFICATION:

A grouping of expenditures on the basis of goods or services purchased (e.g. personnel, services and supplies, equipment, etc.)

OBLIGATIONS: Amounts which a government may be legally required to meet out of its resources. They include not only actual liabilities, but also encumbrances not yet paid.

ODOR CONTROL: The elimination of odors by aeration, chemical oxidation, adsorption, or other means.

OPERATING BUDGET: The portion of the budget that pertains to daily operations that provide for basic governmental services. The operating budget contains appropriations for such expenditures as personnel, supplies, utilities, materials, travel and fuel, and does not include purchases of major capital plant or equipment which is budgeted for separately in the Capital Budget.

OPEN MARKET OPERATIONS:

Purchases and sales of government and certain other securities in the open market by the New York Federal Reserve Bank as directed by the FOMC in order to influence the volume of money and credit in the economy. Purchases inject reserves into the bank system and stimulate growth of money and credit: Sales have the opposite effect. Open market operations are the Federal Reserve's most important and most flexible monetary policy tool.

ORDINANCE: A bill, resolution or order by means of which appropriations are given legal effect. It is the method by which the appropriation of the annual budget is enacted into law by the District Board of Supervisors.

PAR VALUE: The amount of principal which must be paid at maturity. Also referred to as the face amount of a bond. See FACE VALUE.

PAY-AS-YOU-GO: An issuer elects to finance a project with existing cash flow as opposed to issuing debt obligations.

PORTFOLIO: The collection of securities held by an individual or institution.

PEAK DEMAND: The experienced or calculated maximum requirements for management of wastewater or delivery of water expressed as a unit of time (year, month, day, hour or minute).

PREMIUM: The difference between the par value of a bond and the cost of the bond, when the cost is above par.

PRESENT VALUE: The current value of a future cash flow.

PRESSURE: The amount of force per unit area. In water, this is expressed in pounds per square inch (psi) or an equivalent of the weight of a water column at a specific height (feet) exerted in a confined space.

PRESSURE ZONE: An area within a distribution system in which the pressure is maintained by pumps, tank levels, or regulators independent from any adjacent pressure zone (separated by valves).

PRIMARY DEALER: A group of government securities dealers who submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject to its informal oversight. These dealers are authorized to buy and sell government securities in direct dealing with the Federal Reserve Bank of New York in its execution of market operations to carry out U.S. monetary policy. Such dealers must be qualified in terms of reputation, capacity, and adequacy of staff and facilities.

PRIME (SHORT TERM RATING): High quality ratings for short term debt such as commercial paper. Prime ratings are as follows: P1 (Moody's), A1 (S&P), and F1 (Fitch).

PRINCIPAL: The face value or par value of a debt instrument, or the amount of capital invested in a given security.

PRIVATE PLACEMENTS: Securities that do not have to be registered with the Securities and Exchange Commission because they are offered to a limited number of sophisticated investors.

PROSPECTUS: A legal document that must be provided to any prospective purchaser of a new securities offering registered with the Securities and Exchange Commission that typically includes information on the issuer, the issuer's business, the proposed use of proceeds, the experience of the issuer's management, and certain certified financial statements (also known as an "official statement").

PRUDENT INVESTOR STANDARD: A standard of conduct for fiduciaries. Investments shall be made with judgment and care--under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

PUBLIC DEPOSIT: A bank that is qualified under California law to accept a deposit of public funds.

PURCHASE DATE: The date in which a security is purchased for settlement on that or a later date. Also known as the "trade date".

QUAGGA MUSSEL. A subspecies of freshwater mussel, an aquatic bivalve mollusk. It is one of seven Dreissena species and has an average life span of 3 to 5 years. They are non-native mollusks that wreak havoc on the environment by disrupting the natural food chain. The mussels are filter feeders that can cause a shift in native species and a disruption of the ecological balance of entire bodies of water. The mollusks also pose a dramatic economic threat to California.

RATE OF RETURN: 1) The yield which can be attained on a security based on its purchase price or its current market price. 2) Income earned on an investment, expressed as a percentage of the cost of the investment.

REALIZED GAIN (OR LOSS): Gain or loss resulting from the sale or disposal of a security.

REBATE: A requirement imposed by Tax Reform Act of 1986 whereby the issuer of the bonds must pay the IRS an amount equal to its profit earned from investment of bond proceeds at a yield above the bond yield calculated pursuant to the IRS code together with all income earned on the accumulated profit pending payment.

REGIONAL DEALER: A financial intermediary that buys and sells securities for the benefit of its customers without maintaining substantial inventories of securities and that is not a primary dealer.

REVERSE REPURCHASE AGREEMENT (REVERSE REPO): The opposite of a repurchase agreement. A reverse repo is a transaction in which the Agency sells securities to a counterparty (e.g. investment dealer) and agrees to repurchase the securities from the counterparty at a fixed date. The counterparty in effect lends the seller (e.g. the Agency) money for the period of the agreement with terms of the agreement structured to compensate the buyer.

RISK: Degree of uncertainty of return on an asset.

SAFEKEEPING: A service which banks offer to clients for a fee, where physical securities are held in the bank's vault for protection and book-entry securities are on record with the Federal Reserve Bank or Depository Trust Company in the bank's name for the benefit of the client. As agent for the client, the safekeeping bank settles securities transactions, collects coupon payments, and redeems securities at maturity or on call date, if called.

SECURITIES AND EXCHANGE COMMISSION (SEC):

Agency created by Congress to protect investors in securities transactions by administering securities legislation.

SECONDARY MARKET: A market for the repurchase and resale of outstanding issues following the initial distribution.

SECURITIES: Investment instruments such as notes, bonds, stocks, money market instruments and other instruments of indebtedness or equity.

SETTLEMENT DATE: The date on which a trade is cleared by delivery of securities against funds.

SPREAD: The difference between two figures or percentages. It may be the difference between the bid (price at which a prospective buyer offers to pay) and asked (price at which an owner offers to sell) prices of a quote, or between the amount paid when bought and the amount received when sold.

STRUCTURED NOTE: A complex, fixed income instrument, which pays interest, based on a formula tied to other interest rates, commodities or indices. Examples include "inverse floating rate" notes which have coupons that increase when other interest rates are falling, and which fall when other interest rates are rising and "dual index floaters", which pay interest based on the relationship between two other interest rates, for example, the yield on the ten-year Treasury note minus the Libor rate. Issuers of such notes lock in a reduced cost of borrowing by purchasing interest rate swap agreements.

REPURCHASE AGREEMENT

(RP OR REPO): A transaction in which a counterparty or the holder of securities (e.g. investment dealer) sells these securities to an investor (e.g. the Agency) with a simultaneous agreement to repurchase them at a fixed date. The security "buyer" (e.g. the Agency) in effect lends the "seller" money for the period of the agreement, and the terms of the agreement are structured to compensate the "buyer" for this. Dealers use RP extensively to finance their positions. Exception: When the Fed is said to be doing RP, it is lending money that is, increasing bank reserves.

RESERVE: An account used to indicate that a portion of a fund's balance is set aside for a specific purpose and is, therefore, not available for general appropriation.

REVENUE: Monies received as income. It includes such items as water sales, fees for services, contributions in aid of construction, grants and interest income. Estimated revenues are those expected to be collected during the fiscal year.

SACRAMENTO-SAN JOAQUIN RIVER DELTA OR CALIFORNIA DELTA:

An expansive inland river delta and estuary in Northern California in the United States. The Delta is formed at the western edge of the Central Valley by the confluence of the Sacramento and San Joaquin rivers and lies just east of where the rivers enter Suisun Bay.

SCADA: An acronym that means supervisory control and data acquisition, referring to a system that is a computer monitored alarm, response, control, and data acquisition system used by drinking water facilities to monitor operations.

SUBSIDENCE: The gradual sinking of landforms to a lower level as a result of earth movements.

SUPRANATIONALS: are international institutions that provide development financing, advisory services and/or financial services to their member countries to achieve the overall goal of improving living standards through sustainable economic growth. The Government Code allows local agencies to purchase the United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank.

SYNDICATE POLICIES: The contractual obligations placed on the underwriting group relating to distribution, price limitations and market transactions.

TELEMETRY: Communication technologies that allow the remote measurement and status reporting of information.

TIME DEPOSIT: A deposit with a California bank or savings and loan association for a specific amount and with a specific maturity date and interest rate. Deposits of up to \$250,000 are insured by FDIC. Deposits over \$250,000 are collateralized above the insurance with either government securities (at 110% of par value), first trust deeds (at 150% of par value), or letters of credit (at 105% of par value).

TOTAL RATE OF RETURN:

A measure of a portfolio's performance over time. It is the internal rate of return which equates the beginning value of the portfolio with the ending value, and includes interest earnings and realized and unrealized gains and losses on the portfolio. For bonds held to maturity, total return is the yield to maturity.

TREASURY BILLS: Securities issued at a discount with initial maturities of one year or less. The Treasury currently issues three-month and six-month Treasury bills at regular weekly auctions. It also issues very short-term "cash management" bills as needed to smooth out cash flows.

TREASURY BOND: Long-term coupon-bearing securities with initial maturities of ten years or longer.

TREASURY NOTES: Intermediate-term coupon-bearing securities with initial maturities of one year to ten years.

TRUSTEE OR TRUST COMPANY OR TRUST DEPARTMENT OF A BANK:

A financial institution with trust powers which acts in a fiduciary capacity for the benefit of the bondholders in enforcing the terms of the bond contract.

UNDERWRITER: A dealer which purchases a new issue of municipal securities for resale.

UNDERWRITER: A dealer that purchases new issues of municipal securities from the Issuer and resells them to investors.

UNIFORM NET CAPITAL

RULE: Securities and Exchange Commission requirement that member firms as well as nonmember broker/dealers in securities maintain a maximum ratio of indebtedness to liquid capital of 15 to 1; also called net capital rule and net capital ratio. Indebtedness covers all money owed to a firm, including margin loans and commitments to purchase securities, one reason new public issues are spread among members of underwriting syndicates. Liquid capital includes cash and assets easily converted into cash.

UNREALIZED GAIN (OR LOSS):

Gain or loss that has not become actual. It becomes a realized gain (or loss) when the security in which there is a gain or loss is actually sold. See REALIZED GAIN (OR LOSS).

U.S. GOVERNMENT AGENCY

SECURITIES: Securities issued by U.S. government agencies, most of which are secured only by the credit worthiness of the particular agency. See AGENCIES.

U.S. TREASURY OBLIGATIONS:

Securities issued by the U.S. Treasury and backed by the full faith and credit of the United States. Treasuries are the benchmark for interest rates on all other securities in the U.S. The Treasury issues both discounted securities and fixed coupon notes and bonds. The income from Treasury securities is exempt from state and local, but not federal, taxes.

VOLATILITY: Characteristic of a security, commodity or market to rise or fall sharply in price within a short-term period.

WATER DISTRIBUTION: A network of pipe, pumps, and storage facilities to transport potable water from the source/treatment facility to the consumer.

WEIGHTED AVERAGE MATURITY:

The average maturity of all the securities that comprise a portfolio that is typically expressed in days or years.

YIELD: The annual rate of return on an investment expressed as a percentage of the investment. See CURRENT YIELD; YIELD TO MATURITY.

YIELD CURVE: Graph showing the relationship at a given point in time between yields and maturity for bonds that are identical in every way except maturity.

YIELD TO MATURITY: Concept used to determine the rate of return if an investment is held to maturity. It takes into account purchase price, redemption value, time to maturity, coupon yield, and the time between interest payments. It is the rate of income return on an investment, minus any premium or plus any discount, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond, expressed as a percentage.

ZONE 7

WATER AGENCY

Wholesale Water Rate Study

Final Report / October 2018

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Study Background

Background of the Agency

The Zone 7 Water Agency (Agency) was established in 1957 to provide both untreated water to support agriculture and treated wholesale water to the Livermore-Amador Valley area. In 1961, the Agency contracted for State Water Project (SWP) water deliveries through the South Bay Aqueduct.

The Agency's water resources include imported water from the SWP, local groundwater storage, surface water captured in the Del Valle Reservoir, and offsite groundwater banking in Kern County. Historically, the majority of the Agency's water demand has been met by imported water from the SWP; approximately 80 percent of the current water demand is met through SWP water.

The Agency provides treated water service through its four retail water suppliers (retailers) – the City of Pleasanton, Dublin San Ramon Services District, California Water Service Company, and City of Livermore – to a population of approximately 250,000. The Agency also provides treated wholesale water service to six direct customers – Lawrence Livermore Lab, Livermore Area Recreation and Park District (L.A.R.P.D.), Veterans Hospital, Wente Brothers Vineyard, the State of California Department of Water Resources (California DWR), and the East Bay Regional Park District.

For the untreated water program, the Agency provides untreated water from a variety of sources to 81 separate water users under the Rules and Regulations Governing Untreated Water Service. Untreated water customers may request water deliveries of up to 8,104 acre-feet (AF) per year.

Background of the Study

In 2018, the Agency engaged Raftelis to conduct a Treated and Untreated Water Wholesale Rate Study. The study involved analyzing various financial plan scenarios for treated water rates, reviewing the untreated water rate structure, and developing treated and untreated wholesale water rates.

Raftelis has developed the treated wholesale water rate studies for the Agency for the 2015 and 2018 rate years. This study marks the first cost of service study conducted for the untreated wholesale water enterprise.

The major objectives of the study include the following:

- » Ensure financial sufficiency for the two enterprises to meet operation and maintenance (O&M) costs, fund capital projects, and develop sufficient reserve levels
- » Develop treated wholesale water rates for years 2019 through 2022
- » Develop untreated and temporary untreated wholesale water rates for 2019
- » Increase revenue stability, minimize customer impacts, and maintain fairness and equitability of rates

Treated Water Rates

This section of the report includes the assumptions, analyses, scenarios, and resulting rates for the Agency’s wholesale treated water enterprise.

Background and Objectives

Like many other utilities in California, the Agency is faced with financial challenges stemming from the water usage reductions due to increased conservation. Historically, water usage projections from retailers and direct customers have been higher than actual water usage. The Agency currently relies on a variable charge per unit of water as its main source of rate revenue, encompassing approximately 65 percent of total rate revenue. The discrepancy between projected versus actual usage can cause revenue shortfalls that negatively impact the financial sufficiency of the Agency’s treated wholesale water enterprise.

The major objectives for the treated wholesale water enterprise include the following:

- » Develop a financial plan for the treated wholesale water enterprise to ensure financial sufficiency, meet O&M costs, fund capital projects, and develop sufficient reserve levels
- » Develop a four-year rate structure that increases revenue stability while minimizing customer impacts
- » Develop treated wholesale water rates that are fair and equitable to both the Agency’s retailers and direct customers

Key Assumptions

The study period uses the fiscal year (FY) 2019 budget as the base year. The model projects the financial plan through FY 2022, including calculated rate revenues, projected non-rate revenues and expenses, estimated capital funding, and the resulting cash flow and reserve balance projections. The rates developed in this study will recover the Agency’s required revenue in calendar years (CY) 2019 through 2022 based on the data and assumptions contained in this report. The Agency will periodically review rates and take a measured approach with any potential revenue adjustments hereafter if any changed circumstances arise.

Certain cost escalation assumptions and inputs are incorporated into the study to adequately project future costs. These assumptions are based on industry standards and discussions with and/or direction from Agency staff. The escalation assumptions include inflation factors to project future O&M expenses and a Consumer Price Index (CPI) adjustment to rates. **Table 1** presents all inflationary assumptions; any other cost or revenue not shown in this chart are not inflated (for example, miscellaneous non-rate revenues are not inflated in future years).

Table 1: Inflationary Assumptions

Inflation Factors	FY 2019	FY 2020	FY 2021	FY 2022
General	3%	3%	3%	3%
Salary	3%	3%	3%	3%
Benefits	3%	3%	3%	3%
Utilities	5%	5%	5%	5%
Supplies	3%	3%	3%	3%
Capital	0%	0%	0%	0%
Energy	5%	5%	5%	5%
CPI for Rates	3%	3%	3%	3%

Agency staff worked with retailers and direct customers to determine the projected water demand for the study period. **Table 2** shows the annual water demand projections for all customers in AF; **Table 3** shows the same projections in hundred cubic feet (ccf).

Table 2: Water Demand Projections (AF)

Water Sales Projections (AF)	FY 2019	FY 2020	FY 2021	FY 2022
City of Pleasanton	10,360	10,670	10,990	11,320
Dublin San Ramon Services District	10,090	10,390	10,700	11,020
California Water Service Company	6,390	6,580	6,780	6,980
City of Livermore	5,970	6,150	6,330	6,520
Lawrence Livermore Lab	300	300	300	300
L.A.R.P.D.	3	3	3	3
Veterans Hospital	120	120	120	120
Wente Brothers	32	32	32	32
State of California DWR	0	0	0	0
East Bay Regional Park District	17	17	17	17
Total Water Sales (AF)	33,282	34,262	35,272	36,312

Table 3: Water Demand Projections (ccf)

Water Sales Projections (ccf)	FY 2019	FY 2020	FY 2021	FY 2022
City of Pleasanton	4,512,816	4,647,852	4,787,244	4,930,992
Dublin San Ramon Services District	4,395,204	4,525,884	4,660,920	4,800,312
California Water Service Company	2,783,484	2,866,248	2,953,368	3,040,488
City of Livermore	2,600,532	2,678,940	2,757,348	2,840,112
Lawrence Livermore Lab	130,680	130,680	130,680	130,680
L.A.R.P.D.	1,307	1,307	1,307	1,307
Veterans Hospital	52,272	52,272	52,272	52,272
Wente Brothers	13,939	13,939	13,939	13,939
State of California DWR	0	0	0	0
East Bay Regional Park District	7,405	7,405	7,405	7,405
Total Water Sales (ccf)	14,497,639	14,924,527	15,364,483	15,817,507

Current Water Rates

The Agency's current treated wholesale water rates include a fixed charge per customer based on a two-year rolling average of water usage and a variable charge per ccf of water. The fixed charge recovers approximately 35 percent of rate revenue and the variable charge recovers the remaining 65 percent. **Table 4** shows the Agency's current rate structure for CY 2018 and beyond. The current rates for CY 2018 are increased by the CPI for Rates factor in **Table 1** to determine the water rates used to project revenues under the current rate structure in future years.

Table 4: Current Treated Water Rates with CPI Increase

Current Treated Water Rates	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Variable Charge (\$/ccf)	\$2.04	\$2.10	\$2.16	\$2.22	\$2.29
Annual Fixed Charge (all customers)	\$15,849,610	\$16,325,100	\$16,814,856	\$17,319,300	\$17,838,876

Reserve Policy

The Agency has a current reserve policy for Fund 100 (Operating Fund) that includes minimum, target, and maximum reserve levels. Fund 100 has four reserves: Operating, Drought Contingency, Emergency, and Rate Stabilization reserves. The Operating reserve mitigates against cash flow risks and unanticipated O&M expenses. The Drought Contingency reserve prepares for potential droughts and the revenue shortfalls that come with such conditions. The Emergency reserve helps protect the Agency from asset failures, emergencies, and natural disasters. The Rate Stabilization reserve allows the Agency to stabilize rates during periods of increased expenses.

The current reserve policy in effect is as follows:

Operating Reserve

- » Minimum: 60 days of O&M expenses
- » Target: 90 days of O&M expenses
- » Maximum: 120 days of O&M expenses

Drought Contingency Reserve

- » Minimum: 5 percent of water sales revenue
- » Target: 10 percent of water sales revenue
- » Maximum: 20 percent of water sales revenue

Emergency Reserve

- » Minimum: 2 percent of capital assets
- » Target: 2.5 percent of capital assets
- » Maximum: 3 percent of capital assets

Rate Stabilization Reserve

- » Minimum: 10 percent of water sales revenue
- » Target: 15 percent of water sales revenue
- » Maximum: 20 percent of water sales revenue

Financial Plan Scenarios

The study involved an analysis of three financial plan scenarios, which include the status quo and two additional cost scenarios. All scenarios include projected O&M expenses and capital funding based on input from Agency staff. Projected costs consist of salaries and benefits, purchased water, treatment chemicals, debt service, capital funding, and other miscellaneous expenses. The current rates in all scenarios are increased annually with a 3.0 percent CPI factor.

The two variable factors in each financial plan scenario include water supply reliability project costs and reserve funding. The costs for water supply reliability projects represent costs associated with additional water supply to increase reliability in future years. Water supply reliability project costs are widely variable, given the unpredictable nature of water supply sources, and ultimately results in three differing cost scenarios that are realistic and feasible for the near future.

Status Quo (Base Case)

- » Four-year cost of reliability projects is \$9.0 million
- » No revenue adjustments above the 3.0 percent CPI factor

Reduced Reliability Costs (Board Adopted)

- » Four-year cost of reliability projects is \$3.0 million
- » Funding Operating, Drought Contingency, and Emergency reserves at target levels
- » Revenue adjustments of 3.7 percent each year above 3.0 percent CPI factor

Additional Reliability Costs (Raftelis Recommended)

- » Four-year cost of reliability projects is \$15.2 million
- » Funding Operating, Drought Contingency, and Emergency reserves at target levels
- » Revenue adjustments of 6.6 percent each year above 3.0 percent CPI factor

Scenario 1: Status Quo (Base Case)

Scenario 1 represents the status quo and shows the Agency's financial standing if there were no additional revenue adjustments above the 3.0 percent CPI factor. The water supply reliability project costs total \$9.0 million over the four-year study period. **Table 5** shows the cash flow projections under this scenario.

The rate revenues (Lines 1-4) are calculated using the water demand projections for each FY in **Table 3** and the average of CPI inflated CY rates from **Table 4**. The FY variable charge is equal to the average of the two CY charges¹, equal to \$2.07 per ccf in FY 2019 (average of \$2.04 and \$2.10). The estimated FY 2019 variable charge is multiplied by the projections in **Table 3** to determine the volume-based rate revenue (Line 2). The fixed charge revenue (Line 3) in FY 2019 is equal to \$16,087,355, or the average between CY 2018 and CY 2019 fixed charges in **Table 4** (average of \$15,849,610 and \$16,325,100).

The expenses (Lines 11-16) include the projected O&M expenses from the Agency's budget (Line 12), additional water supply reliability costs (Line 13), and existing and proposed debt service (Lines 14-15). The Agency is not planning to issue debt during the study period.

The net cash flow before capital funding is equal to the total revenues (Line 9) less total expenses (Line 16). The Accumulated Capital Outlay (ACO) transfer and capital funding are derived from data provided by Agency staff. The total net cash flow (Line 22) is equal to the net cash flow before capital funding (Line 18) less capital funding costs (Lines 19-20). The Fund 100 ending balance (Line 25) includes the net cash flow. The Fund 100 reserve targets (excluding Rate Stabilization) are in line with the Agency's current reserve policy.

Under Scenario 1, the Agency will have negative reserve levels in Fund 100 by the end of FY 2022. **Figure 1** shows the projected fund balances (green bars) with target reserve levels (black line), omitting the Rate Stabilization reserve.

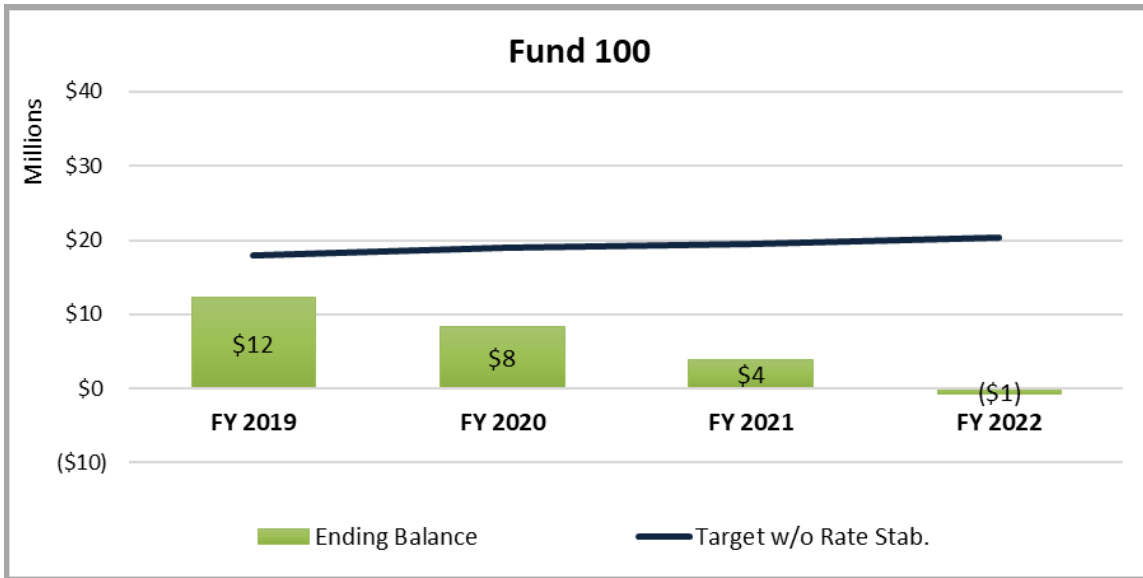
¹ FY 2019 is the period from July 2018 to June 2019, which incorporates half of the months in CY 2018 (July 2018 to December 2018) and half of the months in CY 2019 (January 2019 to June 2019). Therefore, the FY charge is estimated using the average of two CY charges.

Table 5: Cash Flow Projections (Scenario 1)

Line	Cash Flow Projections	FY 2019	FY 2020	FY 2021	FY 2022
1	Revenue				
2	Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
3	Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
4	Total Additional Revenue	\$0	\$0	\$0	\$0
5					
6	Total Rate Revenue	\$46,097,468	\$48,359,221	\$50,715,296	\$53,247,567
7	Investment Earnings	\$127,019	\$102,651	\$60,834	\$15,491
8	Other Revenue ²	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
9	Total Revenue	\$47,370,832	\$49,639,796	\$51,983,797	\$54,501,357
10					
11	Expenses				
12	O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
13	Water Supply & Reliability Projects	\$1,500,000	\$2,000,000	\$2,500,000	\$3,000,000
14	Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
15	Proposed Debt Service	\$0	\$0	\$0	\$0
16	Total Expenses	\$35,842,318	\$40,647,573	\$42,861,183	\$45,146,551
17					
18	Net Cash Flow before Capital Funding	\$11,528,514	\$8,992,223	\$9,122,614	\$9,354,806
19	ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
20	Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
21					
22	Net Cash Flow	(\$968,892)	(\$4,003,105)	(\$4,384,394)	(\$4,684,349)
23					
24	Fund 100				
25	Ending Balance	\$12,278,745	\$8,275,641	\$3,891,247	(\$793,102)
26	Target (no Rate Stabilization)	\$17,974,479	\$18,909,392	\$19,567,781	\$20,260,773

² Other revenues include untreated water revenues at approximately \$1.0 million annually and other miscellaneous revenue (rents, royalties, well permit fees, inspection fees, etc.).

Figure 1: Fund 100 Ending Balances (Scenario 1)



Scenario 2: Reduced Reliability (Board Adopted)

Scenario 2 represents the cost scenario that was adopted by the Agency’s Board of Directors on October 17, 2018. This scenario includes reduced water supply reliability project costs (from Scenario 1), totaling \$3.0 million over the four-year study period. The additional revenue adjustments of 3.7 percent each year over the 3.0 percent CPI factor is included to fund reserve targets for the Operating, Drought Contingency, and Emergency reserves in Fund 100.

Table 6 shows the resulting cash flow projections under this scenario. Compared to **Table 5**, the total additional revenue (Line 4), investment earnings (Line 7), water supply and reliability projects (Line 13), net cash flows before and after capital funding (Lines 18 and 22), and ending balances and reserve targets (Lines 24-26) have changed.

The total additional revenue (Line 4) represents the additional 3.7 percent revenue adjustments. Investment earnings (Line 7) are estimated based on fund balances; since the Fund 100 balances have changed due to the revenue adjustments, the investment earnings differ. Water supply and reliability projects (Line 13) are reduced from \$9.0 million to \$3.0 million in this scenario.

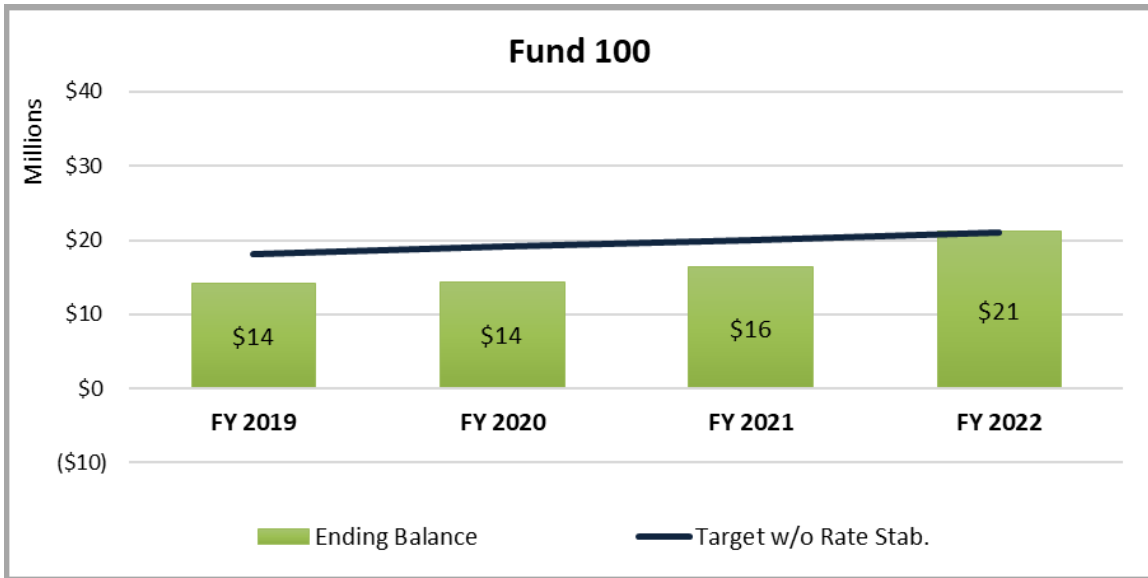
Under Scenario 2, the Agency will fund reserves (omitting the Rate Stabilization reserves) at target levels at the end of the study period in FY 2022. **Figure 2** shows the ending balances for Scenario 2.

Table 6: Cash Flow Projections (Scenario 2)

Line	Cash Flow Projections	FY 2019	FY 2020	FY 2021	FY 2022
1	Revenue				
2	Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
3	Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
4	Total Additional Revenue	\$852,803	\$2,717,039	\$4,831,308	\$7,230,384
5					
6	Total Rate Revenue	\$46,950,271	\$51,076,260	\$55,546,604	\$60,477,951
7	Investment Earnings	\$127,019	\$142,463	\$154,054	\$187,846
8	Other Revenue ³	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
9	Total Revenue	\$48,223,635	\$52,396,647	\$56,908,324	\$61,904,097
10					
11	Expenses				
12	O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
13	Water Supply & Reliability Projects	\$500,000	\$500,000	\$1,000,000	\$1,000,000
14	Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
15	Proposed Debt Service	\$0	\$0	\$0	\$0
16	Total Expenses	\$34,842,318	\$39,147,573	\$41,361,183	\$43,146,551
17					
18	Net Cash Flow before Capital Funding	\$13,381,317	\$13,249,074	\$15,547,141	\$18,757,546
19	ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
20	Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
21					
22	Net Cash Flow	\$883,911	\$253,746	\$2,040,133	\$4,718,391
23					
24	Fund 100				
25	Ending Balance	\$14,131,548	\$14,385,295	\$16,425,428	\$21,143,819
26	Target (no Rate Stabilization)	\$18,059,759	\$19,181,096	\$20,050,911	\$20,983,811

³ Other revenues include untreated water revenues at approximately \$1.0 million annually and other miscellaneous revenue (rents, royalties, well permit fees, inspection fees, etc.).

Figure 2: Fund 100 Ending Balances (Scenario 2)



Scenario 3: Additional Reliability (Raftelis Recommended)

Scenario 3 represents the cost scenario recommended by Raftelis. This scenario includes increased water supply reliability project costs (from Scenario 1), totaling \$15.2 million over the four-year study period. The additional revenue adjustments of 6.6 percent each year over the 3.0 percent CPI factor is included to fund reserve targets for the Operating, Drought Contingency, and Emergency reserves in Fund 100.

The project cost projections of \$15.2 million represent potential additional costs for water supply reliability, as determined by Agency staff. Given the unpredictable and unstable costs that can be associated with obtaining and maintaining additional water supply, Raftelis recommends a more conservative approach in the instance that water supply reliability project costs are higher than anticipated.

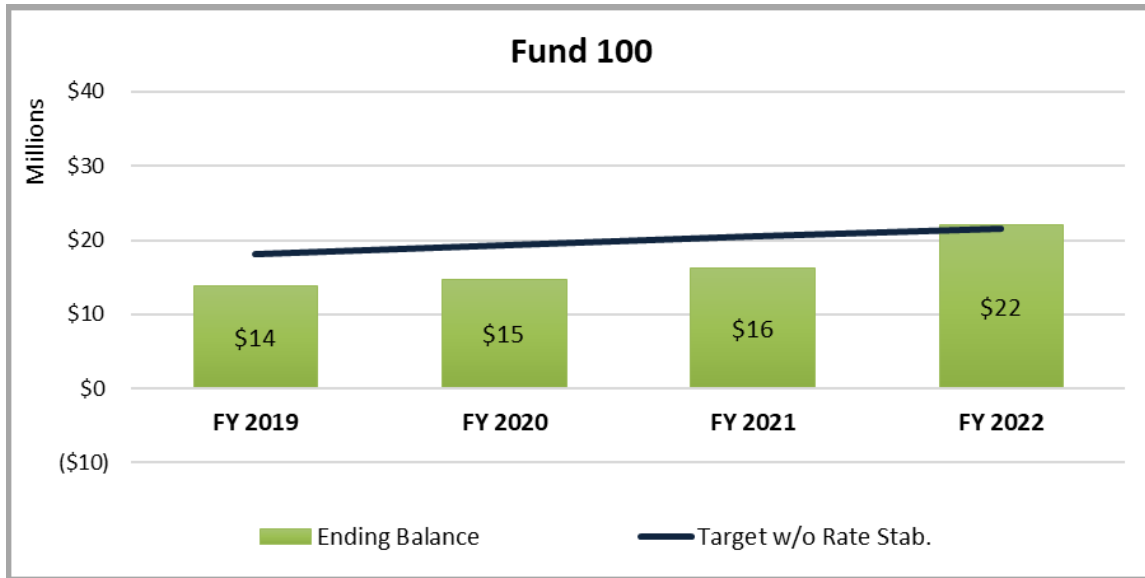
Table 7 shows the resulting cash flow projections for Scenario 3. Under this scenario, the Agency will fund reserves (omitting the Rate Stabilization reserves) at target levels at the end of the study period in FY 2022. **Figure 3** shows the ending balances for Scenario 3.

Table 7: Cash Flow Projections (Scenario 3)

Line	Cash Flow Projections	FY 2019	FY 2020	FY 2021	FY 2022
1	Revenue				
2	Volume-Based Rate Revenue	\$30,010,113	\$31,789,243	\$33,648,218	\$35,668,479
3	Fixed Charge Revenue	\$16,087,355	\$16,569,978	\$17,067,078	\$17,579,088
4	Total Additional Revenue	\$1,521,216	\$4,892,889	\$8,817,146	\$13,382,723
5					
6	Total Rate Revenue	\$47,618,684	\$53,252,110	\$59,532,442	\$66,630,290
7	Investment Earnings	\$127,019	\$142,527	\$154,930	\$191,185
8	Other Revenue ⁴	\$1,146,345	\$1,177,925	\$1,207,666	\$1,238,300
9	Total Revenue	\$48,892,048	\$54,572,562	\$60,895,039	\$68,059,775
10					
11	Expenses				
12	O&M Expenses	\$32,649,908	\$35,524,235	\$37,238,845	\$39,022,338
13	Water Supply & Reliability Projects	\$1,500,000	\$2,000,000	\$5,500,000	\$6,150,000
14	Existing Debt Service	\$1,692,410	\$3,123,338	\$3,122,338	\$3,124,213
15	Proposed Debt Service	\$0	\$0	\$0	\$0
16	Total Expenses	\$35,842,318	\$40,647,573	\$45,861,183	\$48,296,551
17					
18	Net Cash Flow before Capital Funding	\$13,049,730	\$13,924,989	\$15,033,856	\$19,763,224
19	ACO Transfers	\$197,406	\$203,328	\$203,328	\$203,328
20	Capital Funding	\$12,300,000	\$12,792,000	\$13,303,680	\$13,835,827
21					
22	Net Cash Flow	\$552,324	\$929,661	\$1,526,848	\$5,724,069
23					
24	Fund 100				
25	Ending Balance	\$13,799,962	\$14,729,622	\$16,256,470	\$21,980,539
26	Target (no Rate Stabilization)	\$18,126,601	\$19,398,681	\$20,449,495	\$21,599,045

⁴ Other revenues include untreated water revenues at approximately \$1.0 million annually and other miscellaneous revenue (rents, royalties, well permit fees, inspection fees, etc.).

Figure 3: Fund 100 Ending Balances (Scenario 3)



Recommendations

A discussion of the final recommendations and results should begin with reviewing the major objectives set forth in the beginning of the study:

- Develop a financial plan to ensure financial sufficiency, meet O&M costs, fund capital projects, and develop sufficient reserve levels
- Develop a four-year rate structure that increases revenue stability while minimizing customer impacts
- Develop treated wholesale water rates that are fair and equitable

The financial plan scenarios in the previous section were analyzed carefully to determine the resulting financial and rate impacts of each scenario. Based on direction from the Agency’s Board of Directors, Scenario 2 was selected to determine the proposed rates.

Currently, 80 percent of water demand is met through SWP water. However, this demand can only be met if supply conditions for SWP are favorable. During unfavorable conditions, the Agency must purchase water from other sources which may drive up costs considerably. The funds used for additional water supply reliability projects, totaling \$3.0 million over the study period, will increase water supply reliability for the Agency.

The revenue adjustments proposed in Scenario 2 (3.0 percent CPI increase, with an additional 3.7 percent per year) produce sufficient revenues to ensure the utility’s financial sufficiency and cover all costs. The Agency is expected to meet reserve targets without funding the Rate Stabilization reserve. Although this is a reasonable approach to reduce customer impacts during this study period, Raftelis recommends that the Agency fund the Rate Stabilization reserve in the future to have the ability to stabilize rates in case of increased or unexpected expenses.

However, increasing revenues alone does not address another problem the Agency faces: revenue instability. Due to increased conservation over the past few years, fueled mainly by the five-year drought conditions in prior years and conservation mandates, there is a discrepancy between projected sales and actual sales. Agency staff receives projections from its customers, which are ultimately used to determine the variable charge. When actual sales are

less than projected sales, there is a revenue shortfall. The Agency's costs, however, are mostly fixed; in instances of reduced revenue, the Agency must draw from reserves to offset the shortfall.

To address the issue of revenue instability, the proposed fixed revenue recovery percentages increase incrementally each year. The current fixed revenue recovery percentage is equal to 35 percent. Based on discussions with Agency staff, the fixed revenue percentage will increase to 45 percent by the end of the study period, which is an increase of 2.5 percent each year. This incremental change in fixed revenue recovery will increase revenue stability over time and decrease potential customer bill impacts. By recovering a higher proportion of costs through the fixed charge, the Agency is better protected from fluctuations in water demand.

Proposed Water Rates

The final objective involves determining fair and equitable rates for the selected cost scenario, Scenario 2. The resulting rate structure includes a variable charge per ccf of water usage and an annual fixed charge for each retailer and direct customer.

The proposed water rates are based on Scenario 2 costs and include the revenue adjustments of 3.7 percent over the 3.0 percent CPI increase. The revenue requirement, or the revenue to be recovered from rates, is equal to the total rate revenue amount in **Table 6**. The revenue requirement is based on FY, and the resulting rates are for CY.

For example, the calculated rates assume that the revenues recovered in the first half of FY 2019 are determined by CY 2018 rates. The remainder of the FY revenue requirement is used to calculate CY 2019 rates based on a half-year amount of demand. **Table 8** shows the proposed CY 2019 rates that have a 37.5 percent fixed revenue recovery percentage (an increase of 2.5 percent over the current 35 percent).

The variable charge is a uniform rate per ccf of water based on the water sales projections shown in **Table 3**. The fixed charge is distributed to each customer based on their two-year rolling average of water sales. For example, the fixed charge for CY 2019 is determined using the average of FY 2017 and FY 2018 water sales for each customer. Using a two-year rolling average serves to offset any yearly fluctuations in water demand, increase revenue stability for the Agency, and increase rate stability for its customers.

Table 8: Proposed Treated Water Rates (CY 2019)

Proposed Rates	Current CY 2018	Proposed CY 2019
Variable Revenue Recovery	65.0%	62.5%
Variable Charge (\$/ccf)	\$2.04	\$2.01
Fixed Revenue Recovery	35.0%	37.5%
Annual Fixed Charge		
City of Pleasanton	\$4,748,097	\$5,971,854
Dublin San Ramon Services District	\$4,934,327	\$5,811,601
California Water Service Company	\$3,086,763	\$3,672,251
City of Livermore	\$2,917,197	\$3,378,443
Retailers	\$15,686,384	\$18,834,149
Lawrence Livermore Lab	\$127,329	\$465,889
L.A.R.P.D.	\$708	\$1,704
Veterans Hospital	\$20,552	\$41,034
Wente Brothers	\$11,279	\$11,184
State of California DWR	\$18	\$22
East Bay Regional Park District	\$3,340	\$9,116
Direct Customers	\$163,226	\$528,949
Total	\$15,849,610	\$19,363,098

Table 9 shows the proposed water rates for the entire study period. The annual fixed charge amount shown is the total for all customers. The Agency will divide the fixed charge amount by the two-year rolling average as water sales data is updated each year.

Table 9: Proposed Treated Water Rates

Proposed Rates	Current CY 2018	Proposed CY 2019	Proposed CY 2020	Proposed CY 2021	Proposed CY 2022
Fixed Revenue Recovery	35.0%	37.5%	40.0%	42.5%	45.0%
Annual Fixed Charge	\$15,849,610	\$19,363,098	\$21,497,919	\$25,716,705	\$28,713,461
Variable Revenue Recovery	65.0%	62.5%	60.0%	57.5%	55.0%
Variable Charge (\$/ccf)	\$2.04	\$2.01	\$2.10	\$2.06	\$2.15

Customer Impacts

A simple way of determining customer impacts is to identify the total charge per unit of water. The variable charge is already charged on a per ccf basis. The fixed charge can be translated to a to a charge per unit of water by determining the weighted fixed charge per ccf of water from the estimated two-year rolling average.

The number shown in this section of the report are rounded and therefore some numbers will not add up to the exact amount shown in the tables.

Table 10 shows the resulting charges determined in Table 9 as a total charge per ccf of water for the study period.

Table 10: Proposed Treated Water Rates as Variable Charge

Weighted Charges	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Variable Charge (\$/ccf)	\$2.04	\$2.01	\$2.10	\$2.06	\$2.15
Weighted Fixed Charge (\$/ccf)	\$1.14	\$1.32	\$1.43	\$1.67	\$1.81
Total Charge (\$/ccf)	\$3.18	\$3.33	\$3.53	\$3.73	\$3.96

Table 11 shows the proposed approximate dollar amount impact to an average customer at different levels of usage derived from the weighted charges shown in **Table 10**. The actual dollar amount impact to individual customers will be dependent upon their respective retailer.

Table 11: Customer Impacts

Customer Impacts	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022
Monthly Water Usage (ccf)	10	10	10	10	10
Variable Charges	\$20.40	\$20.10	\$21.00	\$20.60	\$21.50
Fixed Charges	\$11.38	\$13.18	\$14.31	\$16.73	\$18.14
Total Charges	\$31.78	\$33.28	\$35.31	\$37.33	\$39.64
Dollar Amount Difference		\$1.50	\$2.03	\$2.02	\$2.31
Monthly Water Usage (ccf)	15	15	15	15	15
Variable Charges	\$30.60	\$30.15	\$31.50	\$30.90	\$32.25
Fixed Charges	\$17.07	\$19.77	\$21.46	\$25.09	\$27.21
Total Charges	\$47.67	\$49.92	\$52.96	\$55.99	\$59.46
Dollar Amount Difference		\$2.24	\$3.04	\$3.03	\$3.47
Monthly Water Usage (ccf)	20	20	20	20	20
Variable Charges	\$40.80	\$40.20	\$42.00	\$41.20	\$43.00
Fixed Charges	\$22.76	\$26.36	\$28.62	\$33.45	\$36.28
Total Charges	\$63.56	\$66.56	\$70.62	\$74.65	\$79.28
Dollar Amount Difference		\$2.99	\$4.06	\$4.03	\$4.63

Table 12 summarizes the information in **Table 11** and provides a quick overview of customer impacts by average level of usage.

Table 12: Customer Impacts Summary

Dollar Amount Difference	CY 2019	CY 2020	CY 2021	CY 2022
10 ccf	\$1.50	\$2.03	\$2.02	\$2.31
15 ccf	\$2.24	\$3.04	\$3.03	\$3.47
20 ccf	\$2.99	\$4.06	\$4.03	\$4.63

Untreated Water Rates

This section of the report includes the cost analysis and resulting rates for the untreated wholesale water enterprise.

Current Water Rates

The Agency’s current untreated wholesale water rates consist of four types of rates: an untreated water rate, a temporary untreated water rate, a non-scheduled untreated water rate, and a surplus untreated water rate.

Table 13 shows the current untreated water rates in dollars per AF for CY 2018.

Table 13: Current Untreated Water Rates

Current Untreated Water Rates	CY 2018
Untreated Water Rate	\$129
Temporary Untreated Water Rate	\$837
Non-Scheduled Untreated Water Rate	\$837
Surplus Untreated Water Rate	\$240

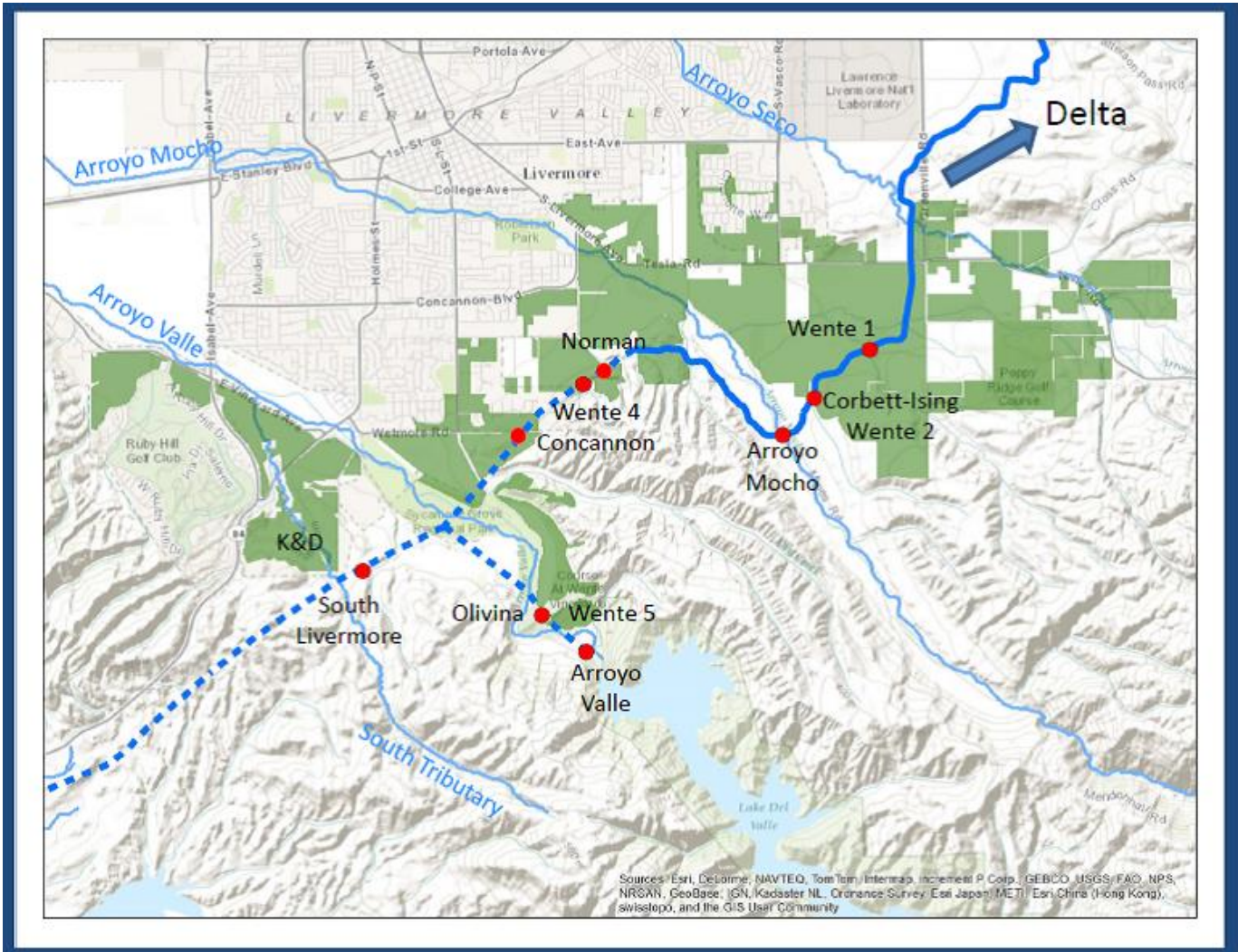
Background

The Agency began delivering untreated water to its service area from the California Department of Water Resources (DWR) via the South Bay Aqueduct in 1962. Over the years, deliveries increased with the agricultural development of South Livermore. The Agency provides untreated water service to 81 untreated water users that may collectively request water deliveries of up to 8,104 AF per year.

Historically, the Agency has had untreated water contracts with 81 separate users, however, only seven of these contractors receive water from the Agency directly from a South Bay Aqueduct turnout. These seven water users are referred to as “turnout water users.” The remaining 74 “remote water users” receive their water deliveries through the turnout water users’ respective conveyance facilities. The Agency’s current practice is to invoice the seven turnout water users for all water delivered through the turnouts, which includes water wheeled, or delivered through their respective facilities, to remote water users. The turnout water users, in turn, invoice the respective individual remote water users.

Figure 4 shows the map of the untreated water turnouts and delivery via the South Bay Aqueduct.

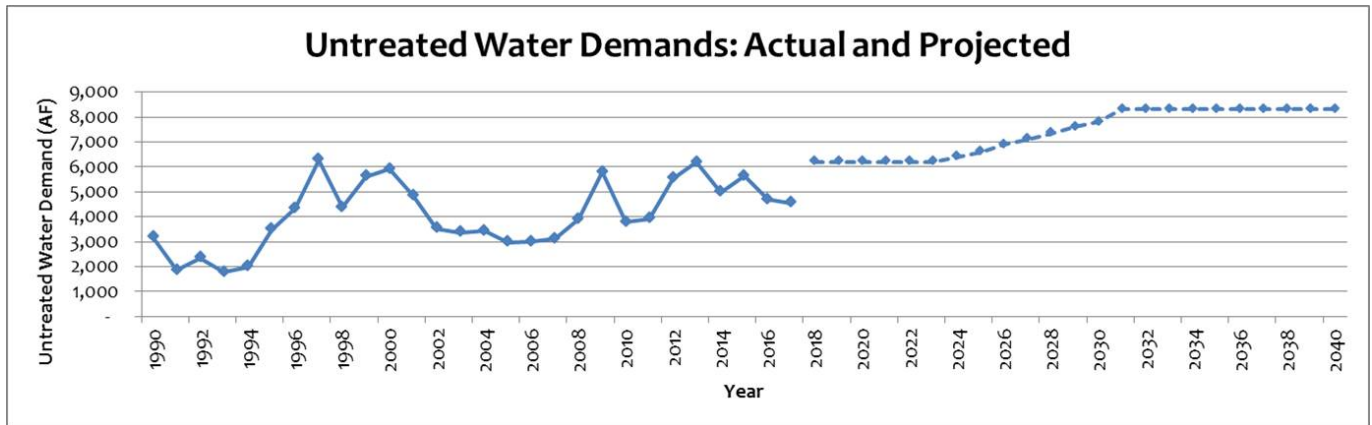
Figure 4: Map of Untreated Water Turnouts



The Agency has historically had contracts with the separate users but transitioned from individual contracts to the Rules and Regulations Governing Water Service in 2011. The Rules and Regulations Governing Water Service reflect the actual relationship that the Agency has with its untreated water customers. This transition allowed the Agency to more effectively administer the untreated water program by clearly documenting and maintaining a maximum annual allocation for each water user and provide a process for water transfers within the service area.

Figure 5 shows a history of the untreated water deliveries and projected future deliveries.

Figure 5: Untreated Water Deliveries



Methodology

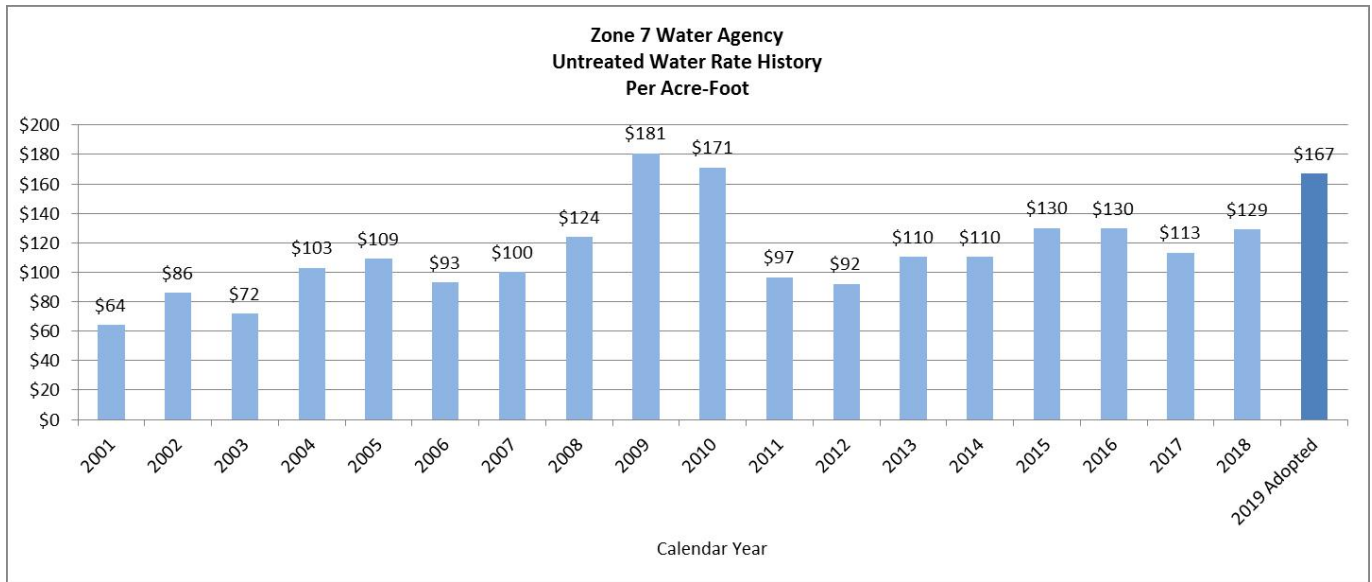
The costs of providing untreated water service are recovered through untreated water rates, shown in **Table 13**. The current rates are based on the cost of imported water, supplemental water purchases, Bay-Delta related costs, and an administrative fee, which is based on actual staff labor for administration of the untreated water program.

To determine the untreated water rates for CY 2019, Raftelis performed a cost of service analysis to verify the ongoing costs of the untreated water program. The current methodology for determining rates, which calculates water rates by dividing the total untreated water costs by expected deliveries in AF, was retained for the updated rates. Several additional cost components were included in this analysis to encompass the Agency’s entire water supply portfolio, which includes local water, SWP water supplies, water transfers, local groundwater, and offsite groundwater banking programs.

Maintaining a diverse water supply portfolio ensures that the Agency has reliable and adequate supplies to meet its customer demands for both the treated and untreated water programs. For example, use of local and offsite groundwater supplies allows the Agency to deliver surface water from the South Bay Aqueduct to untreated water customers during droughts or emergencies while meeting municipal and industrial demands with groundwater. The proposed changes for the CY 2019 rates result from these additional components, which are informed by current water supply conditions, and changes to the operational plan and overhead costs.

Figure 6 shows the history of the untreated water rates and the proposed rate for CY 2019.

Figure 6: Untreated Water Rates



Water Supply Portfolio

The Agency’s water sources are used to meet treated and untreated water demand. Treated water demand is from municipal (retailers) and industrial (direct) customers and untreated water demand is from agricultural customers. Excess surface water supplies are placed into storage locally or remotely for future use. Water supply costs are included in the rate calculation for both treated and untreated water deliveries.

State Water Project/Table A

The Agency’s portion of the annual SWP allocation represents the largest portion of “new” water supply each year. The maximum allocation is 80,619 AF per year. The projected long-term average allocation is 62 percent of the maximum or about 50,000 AF. In the past ten years, the average has been closer to 40,000 AF.

State Water Project/Article 21

SWP surplus water is made available in instances when the San Luis Reservoir is full. This is in addition to Table A water.

Turnback Pool

This water supply source is from other SWP contractors wishing to sell excess supply.

Byron Bethany Irrigation District

Whenever Byron Bethany Irrigation District (BBID), a non-SWP contractor, has surplus supply, water can be made available through a transfer agreement subject to approvals by the DWR and the Bureau of Reclamation. The amount of water varies up to 5,000 AF per year. For planning purposes, this water supply source is presumed to be unavailable for CY 2019. BBID water is subject to a fixed service charge of approximately \$90,000 per year regardless of whether the Agency receives water from this source.

Lake Del Valle/Local Water

The Agency has water rights to Arroyo Valle water captured in Lake Del Valle, which becomes available for use once it has been stored for 30 days. The annual average yield from this source is 7,300 AF. Water captured in Lake Del Valle during the current year needs to be used within the following year.

Yuba Accord

Water from this source is available mainly in dry years through an agreement with the DWR and Yuba County Water Agency. The Agency receives approximately 1 percent of available water.

Dry Year Transfer Program

During dry years, the State Water Contractors negotiate water purchases north of the Delta, which makes additional water available to SWP contractors.

Local Groundwater

The Agency recharges the Livermore Valley groundwater basin with surface water and uses groundwater for peaking conditions, dry years, and emergencies. The Agency only pumps what it has stored; over the last 15 years, the average recharge is 8,000 AF per year and the average pumping rate is 7,300 AF per year. The estimated maximum pumping capacity is 34,000 AF per year. The basin has 126,000 AF of operational storage capacity, which is the storage capacity above historical lows.

State Water Project/Article 56 (Carryover)

SWP Table A water rolls over as carryover for use in future years for individual SWP contractors. In most years, this water remains in the San Luis Reservoir, but in wet years such as 2017 the water is gradually converted to SWP water and can no longer be used by the Agency. When water is converted, SWP Article 21 water is offered as surplus water. Each year, the Agency typically reserves 10,000 to 15,000 AF as carryover to mitigate against fluctuating Table A allocations.

Offsite Groundwater Banks

The Agency has agreements with Semitropic Water Storage District and Cawelo Water District in Kern County for 78,000 AF and 120,000 AF of storage capacity, respectively. The Agency recovers water from these banks as needed during dry years.

Staff Programs

The Agency is committed to providing a reliable supply of high quality water for municipal, industrial, and agricultural customers and spends a considerable amount of time managing the water supply portfolio. Staff program costs are calculated on actual hours worked by Agency staff and an hourly rate of pay. **Table 14** describes the various staff programs in effect.

Table 14: Staff Program Descriptions

Program	Description
Untreated Water Program	Execution, management, and administration of the Untreated Water Program
Water Utility Planning	Operational planning of the water utility and the water supply, day-to-day water supply management activities
Supply Source and Conveyance Administration	General administration and support related to the Supply Source and Conveyance Program
State Water Project	Administration of the State Water Project water supply
Byron Bethany Irrigation District	Administration of the Byron Bethany Irrigation District and associated water purchases
Bay-Delta	Administration related to the Bay-Delta, including the Bay-Delta Conservation Plan, Delta Habit Conveyance and Conservation Program, and now the CalWater Fix
Local Water Rights	Acquisition, maintenance, and renewal of local water rights
Other Water Supplies	Evaluation of water supplies not specific to SWP, Byron Bethany Irrigation District, and Bay-Delta
Water Storage Administration	General administration and support related to the Water Storage Program
Groundwater Basin Management and Monitoring	Groundwater and stormwater monitoring, including toxic site monitoring; groundwater management, including artificial recharge management
Semitropic	Administration, operation, and maintenance of Semitropic water supply, including recovery and storage
Cawelo	Administration, operation, and maintenance of Cawelo water supply, including recovery and storage

Recommendations

The proposed rates developed in this study maintain the current rate structure and are based on the methodologies employed in previous years. However, based on discussion with Agency staff, Raftelis recommends that the Agency eliminate the surplus untreated water rate.

Surplus untreated water deliveries are available only in years when the supplies exceed customer demand. While the rate has been set every year, it has not been utilized in more than 10 years. Water supply conditions have changed, which result in the reduction of available surplus water. The Agency also proactively stores excess water in local and off-site banking programs to bolster supply reliability in dry years or emergencies.

Should the need arise in future years to offer surplus untreated water, Agency staff will determine the rate based on the current water supply and operations plan for discussion and adoption by the Board.

Proposed Water Rates

The proposed untreated water rates include the untreated water rate, the temporary untreated water rate, and non-scheduled untreated water rate. The latter two rates are the same for billing purposes.

The untreated water rate is calculated using the following methodology:

1. Project water deliveries to the untreated and treated water systems based on delivery requests and trends
2. Determine staff costs for different programs that serve one or both of the systems – all overhead costs are shared between treated and untreated water deliveries and untreated water program administration costs are applied directly to untreated water deliveries
3. Apply water supply unit costs per unit of water purchased, factoring in certain supplies such as local Lake Del Valle water that have no or minimal costs
4. Project amount of water purchased from each source
5. Calculate total costs of water supply by multiplying unit costs with amount of water purchased and include all fixed costs (for water rights, etc.)
6. Divide all costs by the water deliveries of each system dependent upon benefit and use
7. Resulting untreated water rate is \$167 per AF for CY 2019

Table 15 shows the proposed untreated water rate calculation. The proposed untreated water rates are based on total planned water deliveries (Line 3) for water supply costs (Line 22) and staff program costs (Line 37). Untreated water program costs (Line 41) are allocated to untreated water deliveries (Line 1).

The total supply and program costs are divided by the planned deliveries in AF to determine the unit cost. All water supply costs, excluding fixed SWP costs, which are paid through property taxes, are used to calculate the untreated water rate. The unit cost for water supply costs is \$128 per AF of water, for treated and untreated water program costs is \$38 per AF, and for untreated water program costs is \$1 per AF. This results in a total proposed rate of \$167 per AF of untreated water.

Table 15: Proposed Untreated Water Rates

Line	Untreated Water Rate Calculation	CY 2018	CY 2019
1	Untreated Water Deliveries (AF)	5,500	5,500
2	Treated Water Deliveries (AF)	31,667	32,784
3	Total Planned Water Deliveries (AF)	37,167	38,284
4			
5	Water Supply Costs		
6	Water Transfers		
7	Byron Bethany Irrigation District	\$90,000	\$90,000
8	Other Water Transfers	\$1,138,000	\$1,000,000
9	Groundwater Banking Programs		
10	Cawelo Recovery	\$0	\$0
11	Semitropic Recovery	\$1,000,000	\$0
12	Cawelo Storage	\$0	\$370,000
13	Semitropic Storage	\$0	\$200,000
14	Semitropic O&M	\$0	\$480,000
15	Local Water Supplies		
16	Del Valle Water Rights	\$3,000	\$3,000
17	State Water Project		
18	Yuba Costs/Dry Year Program	\$10,000	\$80,000
19	Multi-Year Pool Program	\$0	\$0
20	Bay-Delta Related Costs/Water Supply Reliability Projects	\$210,000	\$500,000
21	State Water Project Transportation Variable Cost	\$2,079,122	\$2,170,000
22	Total Water Supply Costs	\$4,530,122	\$4,893,000
23	Water Supply Unit Cost (\$/AF)	\$122	\$128
24			
25	Zone 7 Staff Costs		
26	Treated and Untreated Water		
27	Byron Bethany Irrigation District	\$8,101	\$4,500
28	Cawelo	\$0	\$1,600
29	Groundwater Monitoring and Management	\$0	\$944,000
30	Local Water Rights	\$0	\$23,000
31	Other Water Supplies	\$33,140	\$26,000
32	Semitropic	\$0	\$3,100
33	State Water Project	\$158,335	\$127,000
34	Supply Source and Conveyance Administration	\$0	\$20,800
35	Water Storage Administration	\$0	\$7,200
36	Water Utility Planning	\$0	\$290,000
37	Total Treated and Untreated Water Costs	\$199,576	\$1,447,200
38	Unit Cost (\$/AF)	\$5	\$38
39	Untreated Water		
40	Untreated Water Program	\$10,121	\$8,000
41	Total Untreated Water Costs	\$10,121	\$8,000
42	Unit Cost (\$/AF)	\$2	\$1
43	Zone 7 Staff Unit Cost (\$/AF)	\$7	\$39
44			
45	Total Untreated Water Rate (\$/AF)	\$129	\$167

Table 16 shows the proposed temporary untreated water rates, which is used to determine the temporary and non-scheduled untreated water rates. The costs attributed to these rates include the majority of the cost elements of the untreated water rate, with the addition of SWP supply costs that are paid for by property taxes.

The need for temporary services results from the inability of customers to obtain water in the outlying areas of the valley. The use of these services is limited. Since temporary untreated water customers do not pay property taxes, they are responsible for the portion of the SWP supply that is paid for by these revenues. Non-scheduled untreated water is charged to all deliveries exceeding scheduled deliveries by 10 percent in any year.

The total estimated expenses (Line 16) is divided by the planned water deliveries (Line 1) to determine the unit cost (Line 17), which is then added to the staff program unit cost (Line 19) determined in **Table 14**. The proposed temporary and non-scheduled untreated water rate is \$860 for CY 2019.

Table 16: Proposed Temporary Untreated Water Rates

Line	Temporary Untreated Water Rate Calculation	CY 2019
1	Total Planned Water Deliveries (AF)	38,290
2		
3	Estimated Expenses	
4	State Water Supply	\$26,500,000
5	Off-Aqueduct Power Facilities	\$41,000
6	Variable Transportation Water Charges	\$2,170,000
7	Cawelo Recovery	\$0
8	Semitropic Recovery	\$0
9	Cawelo Storage	\$370,000
10	Semitropic Storage	\$200,000
11	Semitropic O&M	\$480,000
12	Byron Bethany Irrigation District	\$90,000
13	Yuba Dry Year Purchase Program	\$80,000
14	Bay-Delta Related Costs/Water Supply Reliability Projects	\$500,000
15	Other Water Transfers	\$1,000,000
16	Total Estimated Expenses	\$31,431,000
17	Unit Cost (\$/AF)	\$821
18		
19	Zone 7 Staff Unit Cost (\$/AF)	\$39
20		
21	Total Temporary Untreated Water Rate (\$/AF)	\$860

Table 17 shows the proposed untreated water rates in dollars per AF for CY 2019.

Table 17: Proposed Untreated Water Rates

Proposed Untreated Water Rates	CY 2019
Untreated Water Rate	\$167
Temporary Untreated Water Rate	\$860
Non-Scheduled Untreated Water Rate	\$860
Surplus Untreated Water Rate	N/A