ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
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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.

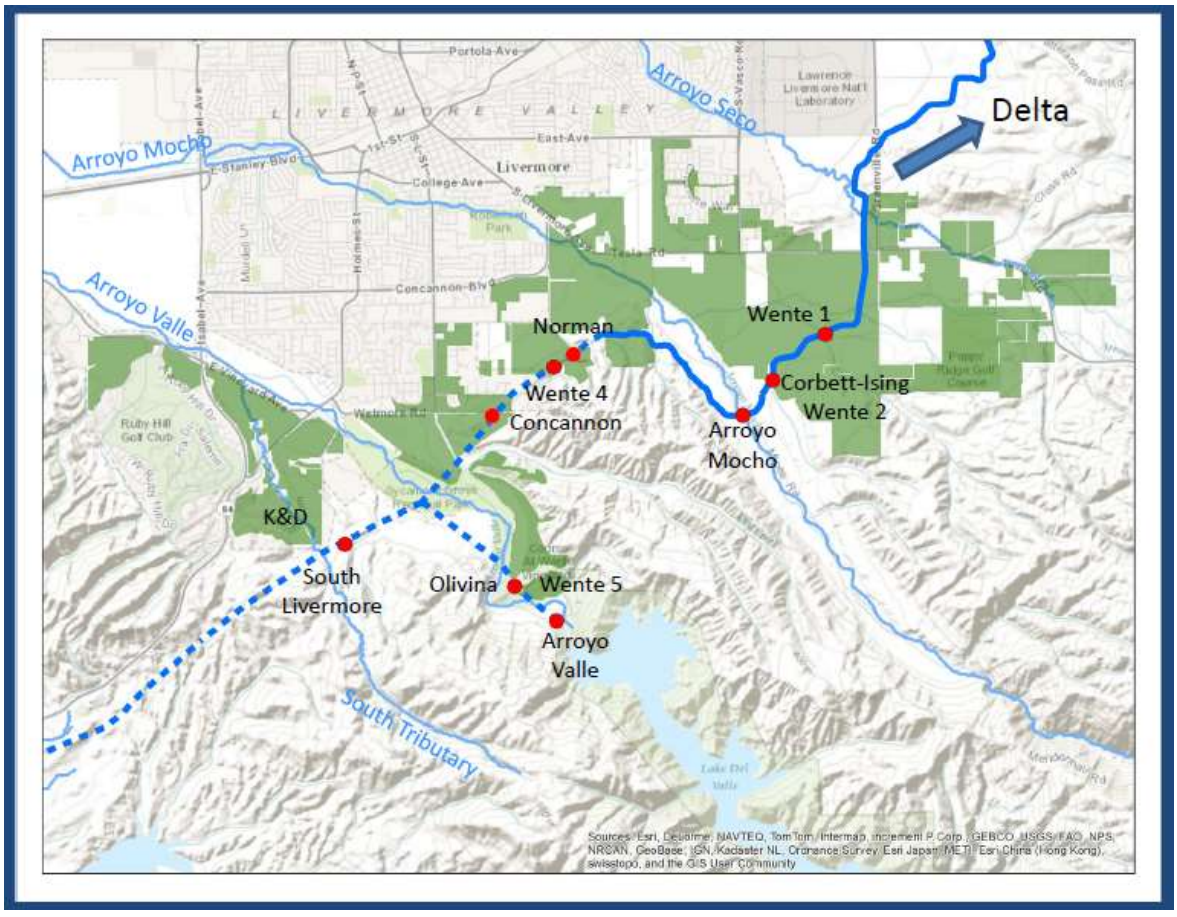
BACKGROUND/DISCUSSION:

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.

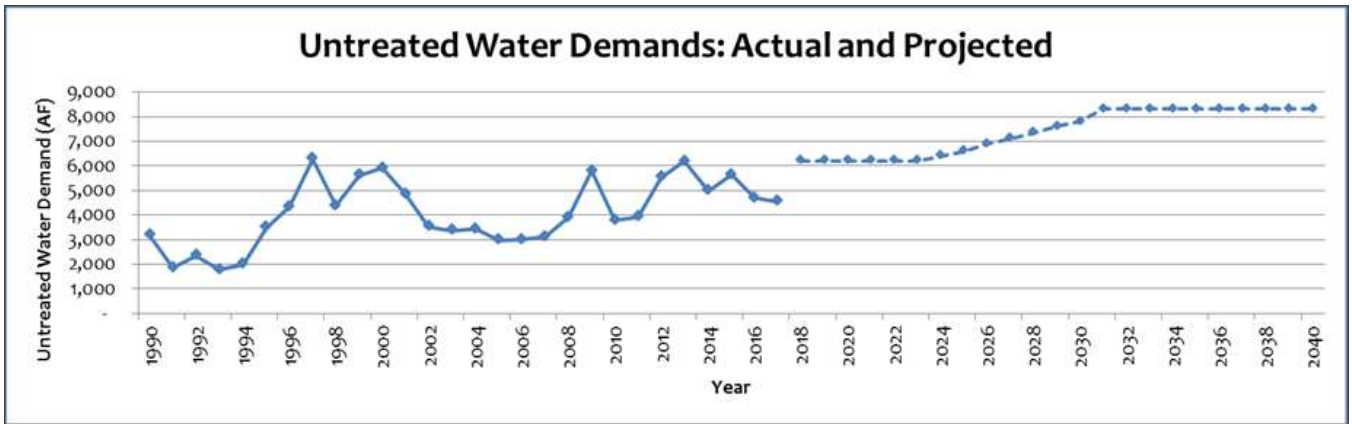
While historically Zone 7 has untreated water contracts with 81 separate water users, only seven of these contractors receive Zone 7 water directly from an SBA turnout. These water users are referred to as "turnout water users." The remaining 74 "remote water users" receive their water deliveries through 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.



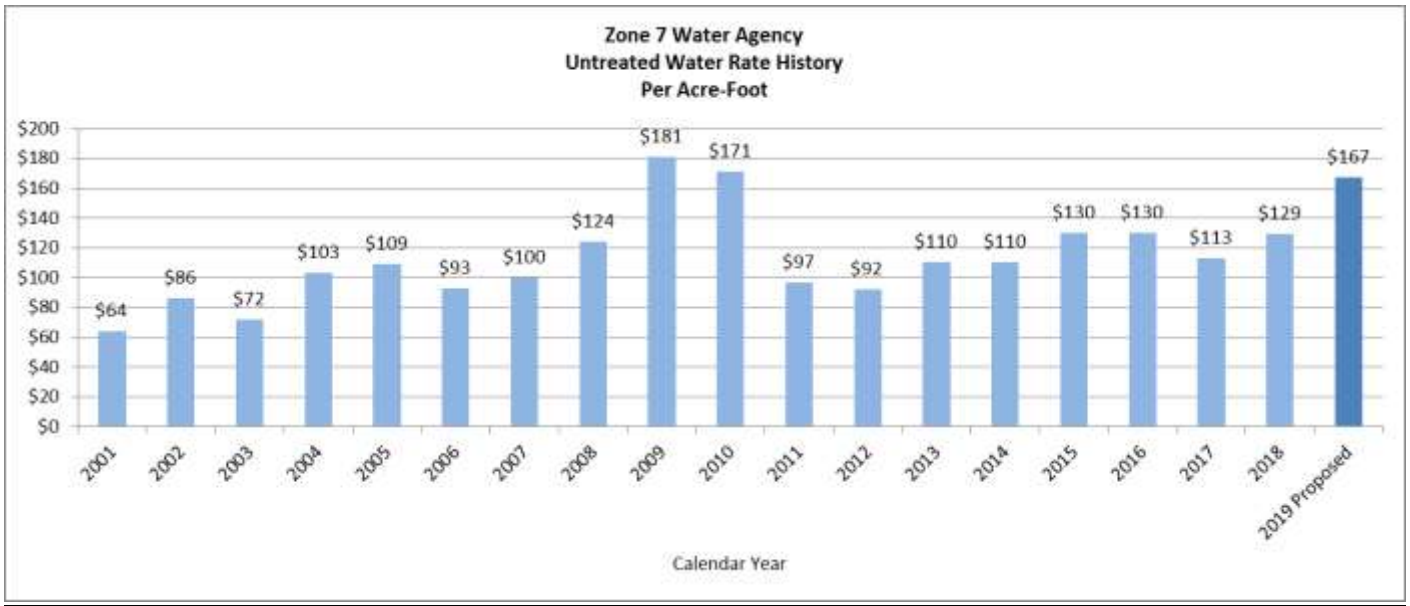
In 2011, Zone 7 transitioned from individual contracts with separate users to Rules and Regulations Governing Water Service. The Rules and Regulations Governing Untreated Water Service reflect Zone 7's actual relationship with the untreated water users, and allows Zone 7 to efficiently administer the 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.

<u>Zone 7 Water Supply Portfolio</u>

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.
Water Utility Planning	Operational planning of water supply and the water utility and day-to-day water supply management activities.
Supply Source & Conveyance Administration	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.
Bay Delta	*Administration related to the Bay Delta, including Bay Delta Conservation Plan , Delta Habitat 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, BBID, and Bay Delta.
Water Storage Administration	*General administration and support related to the Water Storage Program.*
Groundwater Basin Management and Monitoring	*Groundwater and Storm water monitoring, including toxic site monitoring. Groundwater management, including artificial recharge management.*
Semitropic	*Administration, operation, and maintenance of Semitropic.*
Cawelo	*Administration, operation, and maintenance of Cawelo.*

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
Estimated Expenses	***Amount***
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	-
f) Cawelo Storage	$370,000
g) Semitropic Storage	$200,000
h) Semitropic O&M	$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. Zone 7 Staff costs per AF (derived from Untreated Water Calculation)	$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.