



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: INTEGRATED PLANNING
CONTACT: SAL SEGURA / AMPARO FLORES

AGENDA DATE: January 16, 2019

ITEM NO. 12

SUBJECT: Preliminary Water Supply Operations Plan for 2019

SUMMARY:

- The State Water Project (SWP) is the main source of incoming water supply for Zone 7. Each year in December, DWR announces an initial State Water Project (SWP) allocation. This year, the initial allocation is 10% or 8,100 acre-feet of new supply for Zone 7.
- Given that the final SWP allocation is typically not issued until April/May, it is imperative to develop a preliminary water supply operations plan to cover a range of water supply conditions to prepare for the upcoming calendar year, particularly under below average conditions.
- The Annual Sustainability Report, presented in April when conditions are well defined, will build on this preliminary plan for 2019, and make projections over the next five years.
- Zone 7 has developed various operations plans to operate with as low as 10% SWP allocation (8,100 AF).
- Additional supplies will consist of SWP Carryover, Lake Del Valle, local groundwater and, if necessary, Kern County groundwater banks. Yuba Accord and other transfers may augment supplies.
- SWP allocations less than 50% will require recovery from Kern County groundwater banks, which increases water supply costs.
- Projected treated and untreated customer demand in 2019 ranges from 39,100 to 43,800 AF.
- In the event of a low SWP allocation, Zone 7's local reserves can provide up to 14,000 AF of groundwater and 2,000 AF from Lake Del Valle. Kern County groundwater banks can provide up to 19,000 AF annually.
- Current storage balance includes 118,000 AF in the Main Basin, 104,000 AF in Kern County groundwater banks, 7,000 AF in SWP Carryover and 1,000 AF in Lake Del Valle.
- The attached tables show that Zone 7 can meet demands under various water supply scenarios from 10% to 60% SWP Table A allocation, with estimated water supply costs ranging from \$3.1M to \$4.7M¹. This range falls within the approved budget for imported water supplies. Estimated costs in 2018 are \$4.2M.

¹ This does not include SWP capital costs, which are funded by property tax revenue.

FUNDING:

Water supply and operations costs are paid from Fund 100 (Water Enterprise).

RECOMMENDATION:

For information only.

ATTACHMENTS:

General Water Supply & Use Plan – 2019
Estimated 2019 Water Supply Costs

**Zone 7 Water Agency: Preliminary Water Operations Plan 2019
General Water Supply & Use Plan**

		10% SWP Allocation	30% SWP Allocation	50% SWP Allocation	60% SWP Allocation	2018 Actuals (35% Alloc.)
	Source	Annual Amt	Annual Amt	Annual Amt	Annual Amt	Annual Amt
Available Supply	SWP - (Table A)	8,100	24,200	40,300	48,400	28,200
	SWP - Carryover (2018 to 2019)	7,000	7,000	7,000	7,000	15,700
	Yuba Transfer	1,000	2,000	1,000	200	2,000
	LDV Local Yield - 2018 Carryover	1,200	1,200	1,200	1,200	0
	Other Water Transfers	1,000	1,000	0	0	650
	GW Production ¹	14,000	13,000	10,800	10,800	5,300
	GW Production Disposal to brine	500	400	400	400	350
	Semitropic-(Pumpback)	9,100	3,000	0	0	0
	Semitropic-(Exchange)	0	1,600	0	0	0
	Cawelo	5,000	0	0	0	0
	LDV Local Yield - 2019	500	3,000	5,000	6,000	1,200
	Total		47,400	56,400	65,700	74,000

		10% SWP Allocation	30% SWP Allocation	50% SWP Allocation	60% SWP Allocation	2018 Actuals (35% Alloc.)
	Water Use	Annual Amt	Annual Amt	Annual Amt	Annual Amt	Annual Amt
Planned Usage	Treated Water Requested	38,300	38,300	38,300	38,300	36,400
	Treated Water (Projected)	34,600	36,700	38,300	38,300	35,000
	Agricultural	4,500	5,000	5,500	5,500	5,400
	A Valle Artificial Stream Recharge	200	2,500	2,000	1,500	3,100
	A Valle Shadow Cliffs Diversion	0	500	500	400	550
	A Mocho Artificial Stream Recharge	0	1,000	2,000	2,000	700
	Demin Concentrate-Brine	500	400	400	400	350
	Cawelo Storage ³	0	0	0	3,000	0
	Semitropic Storage ³	0	0	3,000	8,000	0
	Local Water Carryover	500	3,000	5,000	6,000	1,200
	SWP Carryover (2019 to 2020)	7,000	6,800	8,400	8,200	7,000
	Lake Del Valle Evap Losses	100	500	600	700	100
	Total		47,400	56,400	65,700	74,000

Footnotes: ¹ Local Groundwater Bal is 118 TAF

² Conservation % based on projected vs requested. In 2013, production was 43,200 AF.

³ Kern Groundwater Storage Bal is 104 TAF

Legend:

SWP - State Water Project

LDV - Lake Del Valle

GW - Groundwater

Zone 7 Water Agency

Preliminary Water Operations Plan 2019

Estimated Supply Cost

Water Supply Type	Conveyance Cost, \$/AF	Water Cost, \$/AF	10% SWP Cost, \$	30% SWP Cost, \$	50% SWP Cost, \$	60% SWP Cost, \$	2018 ³ Cost, \$
SWP Water	55	0	\$ 445,500	\$1,342,000	\$ 2,139,500	\$2,596,000	\$2,100,000
Yuba Transfer	55	400	\$ 455,000	\$ 910,000	\$ 455,000	\$ 91,000	\$ 990,000
Other Transfers	55	500	\$ 555,000	\$ 555,000	\$ -	\$ -	\$ 670,000
Semitropic ¹	Recover	200	\$1,730,500	\$1,163,000	\$ -	\$ -	\$ -
	Store	100	\$ -	\$ -	\$ 540,000	\$ 886,000	\$ 430,000
Cawelo ¹	Recover	250	\$1,525,000	\$ -	\$ -	\$ -	\$ -
	Store	120	\$ -	\$ -	\$ -	\$ 450,000	\$ -
LDV Water	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
Total²			\$4,711,000	\$3,970,000	\$ 3,134,500	\$4,023,000	\$4,190,000

¹ Semitropic and Cawelo include SWP conveyance costs, O&M and banking fees.

² Water Supply costs exclude capital costs which are funded by property tax revenue.

³ Actual costs for 2018 are estimated using best available data. Table A allocation was 35% in 2018. Semitropic cost was O&M only, not storage/recovery. Conveyance costs for Yuba and other transfers are included in 'SWP Water' costs.