

Zone 7 Water Agency Three-Year Drought Delivery Analysis Based on SWRCB Guidelines (Acre-Feet)

ACTUAL TREATED WATER DELIVERIES

URBAN WATER SUPPLIER	YEAR	UNITS	ACTUAL DELIVERY	% DISTRIBUTION
CWS	2013	AF	8,753	20%
DSRSD	2013	AF	11,248	26%
LIVERMORE	2013	AF	6,732	16%
OTHER	2013	AF	186	0.4%
PLEASANTON	2013	AF	14,564	34%
UAFW	2013	AF	1,673	4%
TOTAL	2013	AF	43,156	100%

PROJECTED TREATED WATER DELIVERIES

URBAN WATER SUPPLIER	YEAR	UNITS	PROJECTED DELIVERY	% DISTRIBUTION
CWS	2017	AF	7,079	19%
DSRSD	2017	AF	9,899	27%
LIVERMORE	2017	AF	5,898	16%
OTHER	2017	AF	191	0.5%
PLEASANTON	2017	AF	12,107	33%
UAFW	2017	AF	1,482	4%
TOTAL	2017	AF	36,700	100%

CWS	2014	AF	5,405	18%
DSRSD	2014	AF	8,550	28%
LIVERMORE	2014	AF	5,064	17%
OTHER	2014	AF	195	0.6%
PLEASANTON	2014	AF	9,650	32%
UAFW	2014	AF	1,291	4%
TOTAL	2014	AF	30,155	100%

CWS	2018	AF	7,079	19%
DSRSD	2018	AF	9,899	27%
LIVERMORE	2018	AF	5,898	16%
OTHER	2018	AF	191	0.5%
PLEASANTON	2018	AF	12,107	33%
UAFW	2018	AF	1,482	4%
TOTAL	2018	AF	36,700	100%

CWS	2013-14 AVG	AF	7,079	19%
DSRSD	2013-14 AVG	AF	9,899	27%
LIVERMORE	2013-14 AVG	AF	5,898	16%
OTHER	2013-14 AVG	AF	191	0.5%
PLEASANTON	2013-14 AVG	AF	12,107	33%
UAFW	2013-14 AVG	AF	1,482	4%
TOTAL	2013-14 AVG	AF	36,700	100%

CWS	2019	AF	7,079	19%
DSRSD	2019	AF	9,899	27%
LIVERMORE	2019	AF	5,898	16%
OTHER	2019	AF	191	0.5%
PLEASANTON	2019	AF	12,107	33%
UAFW	2019	AF	1,482	4%
TOTAL	2019	AF	36,700	100%

Notes: UAFW = unaccounted-for water. Other = direct retail customers. Distribution of projected supplies is based on average deliveries in 2013-2014 to match expected demand. Based on these projected deliveries, Zone 7 expects to have surplus supply, which will be placed in storage.

DEMANDS AND SUPPLIES
Zone 7 Three-Year Drought Analysis Based on SWRCB Guidelines
(Acre-Feet)
2016 - 2019

Actual Demand

Year	2013	2014	2015	2016
Potable Demand	43,200	30,200	25,400	34,500

Demand Projections

Year	2016	2017	2018	2019
Potable Demand	34,500	36,700	36,700	36,700
Non-Potable Demand	5,000	5,000	5,000	5,000

Supply Sources

Water Year Type/SWP Allocation	(2016) 60%	(2013) 35%	(2014) 5%	(2015) 20%
Table A	48,400	28,200	4,000	16,100
SWP Carryover	13,400	6,200	15,900	5,100
Water Banks	300	0	14,000	19,000
Local Surface Water	9,100	12,500	500	3,000
Groundwater	4,500	5,000	12,000	8,000
Yuba Accord, BBID, etc	1,500	5,700	400	400
Total	77,200	57,600	46,800	51,600

Supply - Demand (Excess Supply)	37,700	15,900	5,100	9,900
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CONCLUSION: *No shortage ==> no mandatory conservation target.*

Information: Potable demands include deliveries to retailers, direct retail, and unaccounted-for water. Zone 7 Max Table A amount - 80,619 AF, SWP Carryover - 13,400 AF, Groundwater Bank Storage (Water Banks): Semitropic - 59,200 AF, Cawelo - 15,200 AF, Local Surface Water Storage - 9,100 AF, Local Groundwater Storage - 90,000 AF (Est). BBID = Byron Bethany Irrigation District transfer

Assumptions: SWP Allocation remains at 60%. Demand Calculation (2017-2019) is based on 2013 and 2014 average. Supply is based on current conditions for 2016, 2013 conditions for 2017, 2014 conditions for 2018, etc. Recovery capacity from water banks in drought years is 15,000 AF the first year of recovery and 19,000 AF the second year. Local Surface Water can be accessed throughout the year. Groundwater pumping capacity is 12,000 AF per year. Conservation during drought period (2017-2019) is about 15% of the 2013 production. Conservation in 2016 is 20% of 2013 production.

STORAGE ANALYSIS

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Zone 7 will plan to meet both potable and untreated demands. See example scenario below: no shortage expected.

BEGINNING OF YEAR STORAGE				
YEAR	2016	2017	2018	2019
Semitropic Bal.	59,200	63,400	63,400	54,400
Cawelo Bal.	15,200	18,700	18,700	13,700
Local GW Strg Bal.	92,000	96,950	91,950	79,950

DIRECT DEMANDS				
Potable Demand	34,500	36,700	36,700	36,700
Nonpotable Demand	5,000	5,000	5,000	5,000
Excess Supply	37,700	15,900	5,100	9,900
TO STORAGE				
GW Recharge	10,500			
SWP Carryover into Next Year	6,200	15,900	5,100	9,900
Semitropic Storage	5,000			
Cawelo Storage	7,000			
Lake Del Valle Carryover	9,000			