

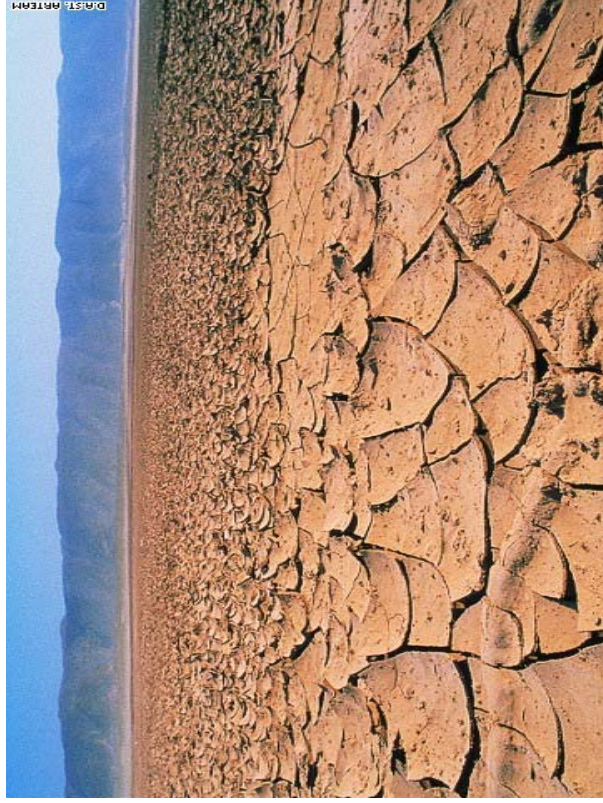
**2017 Water  
Supply Status**  
Palmdale Water District



## 2017 Water Status

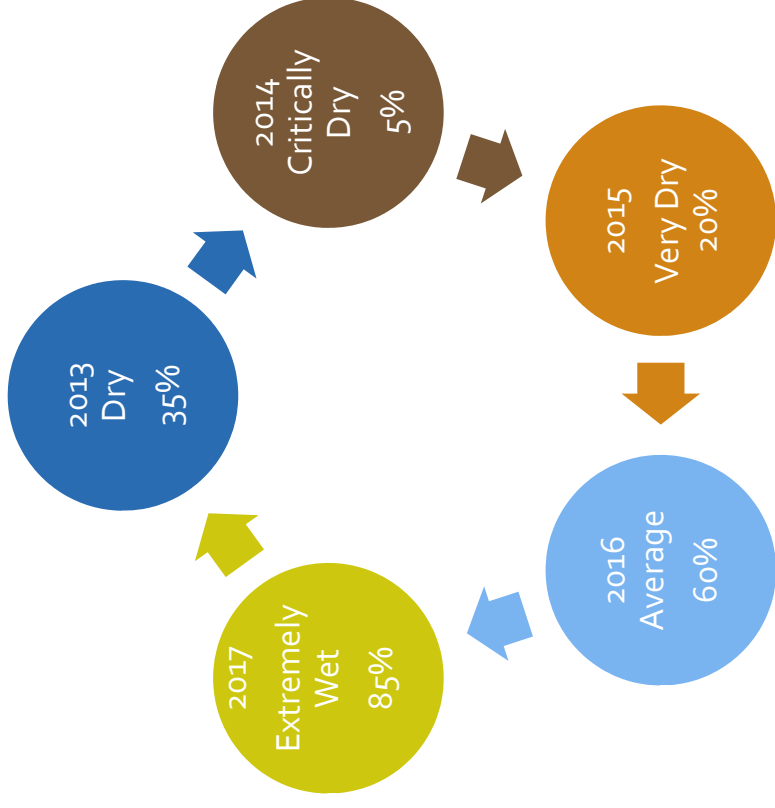
- 2017 State Water Project Allocation is at 85%
- Littlerock Dam is nearly full at elevation 3,262' (spillway is 3,270')
- We will be able to hold 5,000 AF of our State Water Project supplies in Carryover in San Luis Reservoir for use in 2018
- Water consumption demands are slowly increasing but still remain quite low due to conservation efforts
- PWD is currently paying back return water owed to exchange partners to the extent that they are willing to receive additional water in this wet year
- We have increased the normal surface water usage ratio from 60% max to 75% plus to take advantage of abundant water available through the State Water Project
- We have reduced well production to rest and rehabilitate those facilities which have been worked exceedingly hard to carry us through the last five years of drought

# California Water Extremes Not enough or too much!

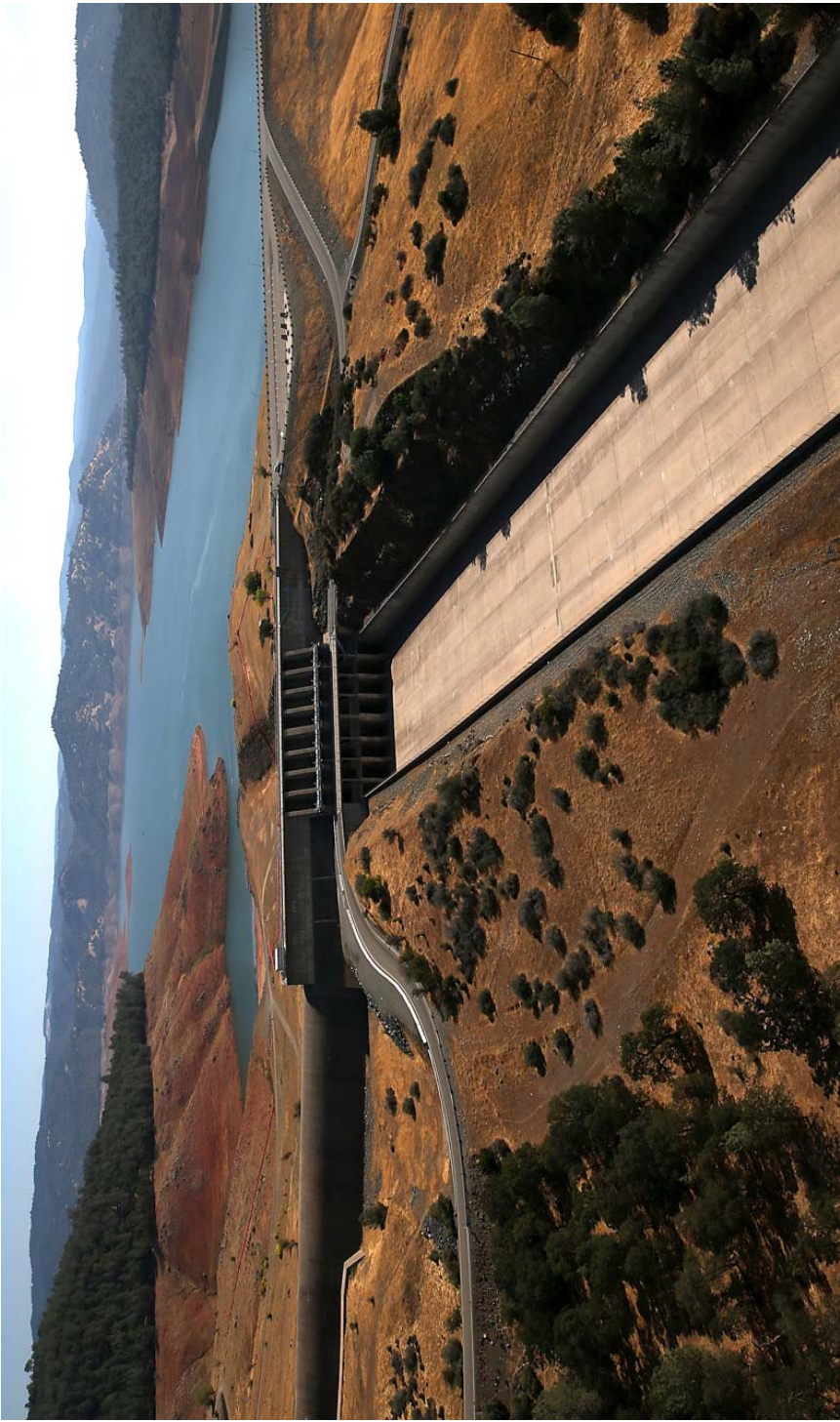


# Drought to Drenched the California State Water Project Water Picture in Five Years

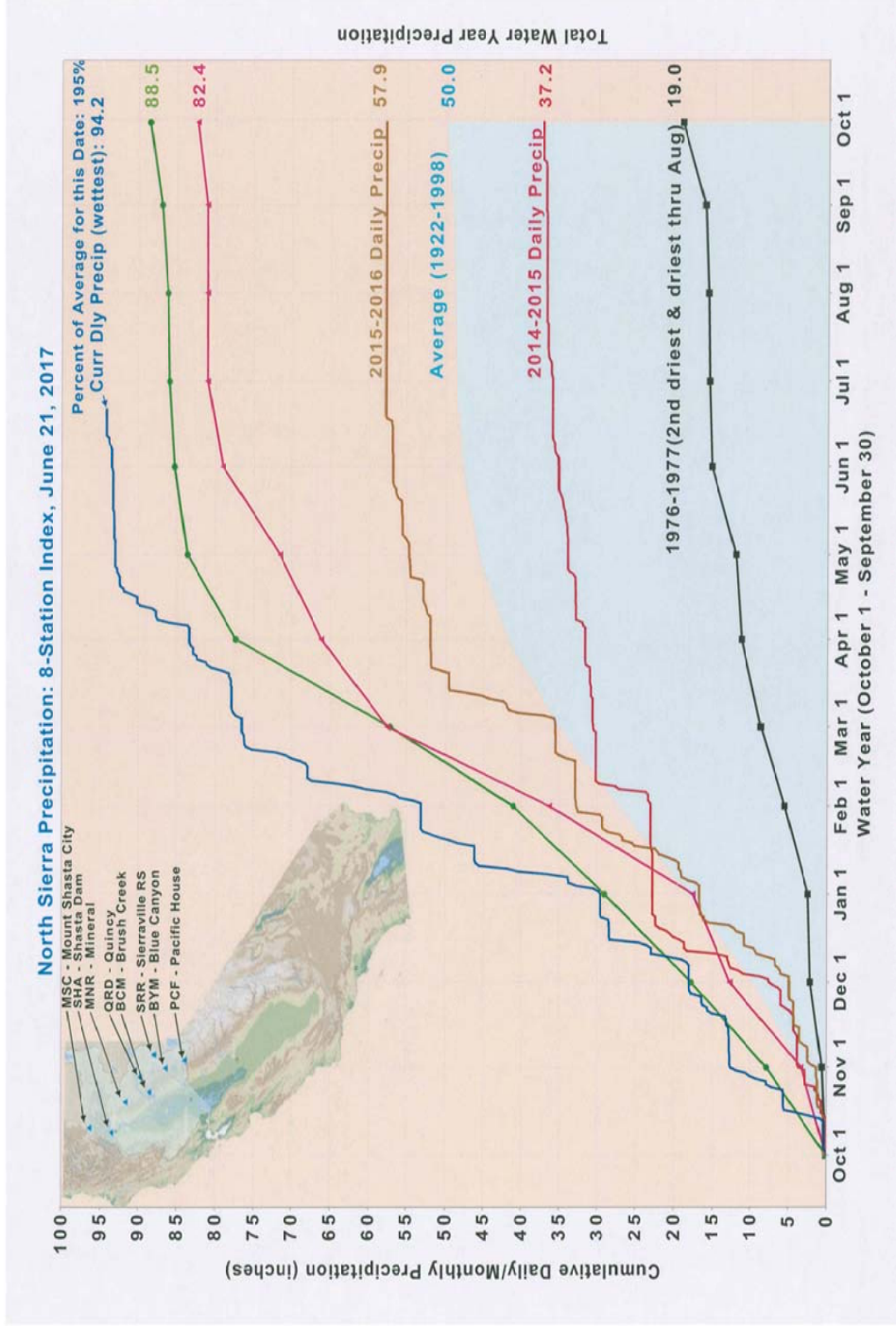
- In the last five years we have experienced both the wettest year and the driest year on record in California
- Palmdale Water Districts future reliance on the SWP necessitates the utilization of water banking in wet years to supplement anticipated dry year demands
- California experiences the most extreme variability in yearly precipitation in the nation



# OROVILLE DAM 2015



# 2017 PRECIPITATION TO DATE



# OROVILLE DAM 2017



SWP ALLOCATIONS AND DELIVERED QUANTITIES BY YEAR					
Year	Contractual Table A	Allocation %	ac/ft allocated	ac/ft delivered	% allocation taken
2007	21,300	60%	12,780.00	17,492.00	137%
2008	21,300	35%	7,455.00	11,272.00	151%
2009	21,300	40%	8,520.00	15,387.00	181%
2010	21,300	50%	10,650.00	10,989.00	103%
2011	21,300	80%	17,040.00	14,333.00	84%
2012	21,300	65%	13,845.00	19,056.00	138%
2013	21,300	35%	7,455.00	10,567.00	142%
2014	21,300	5%	1,065.00	8,406.00	789%
2015	21,300	20%	4,260.00	5,854.00	137%
2016	21,300	60%	12,780.00	11,155.00	87%
2017	21,300	85%	18,105.00	4,163.00	23%
TOTALS	NA	NA	113,955.00	128,674.00	NA
AVG.	21300	49%	10,359.00	11,697.00	179%

SWP delivered quantities exceeded contractual Table A allocation in 8 out of the last 10 years

Additional Surface Water Supply was supplemented by the following

- Butte County Lease Agreement
- Yuba Accord
- Dry Year Transfer Water
- Creative exchanges
- Minimally by Banked Water



2014 water demands exceeded typical supply sources and required acquiring and utilizing 9 different resources to meet minimum demands

Some components were supplemented by water exchanges

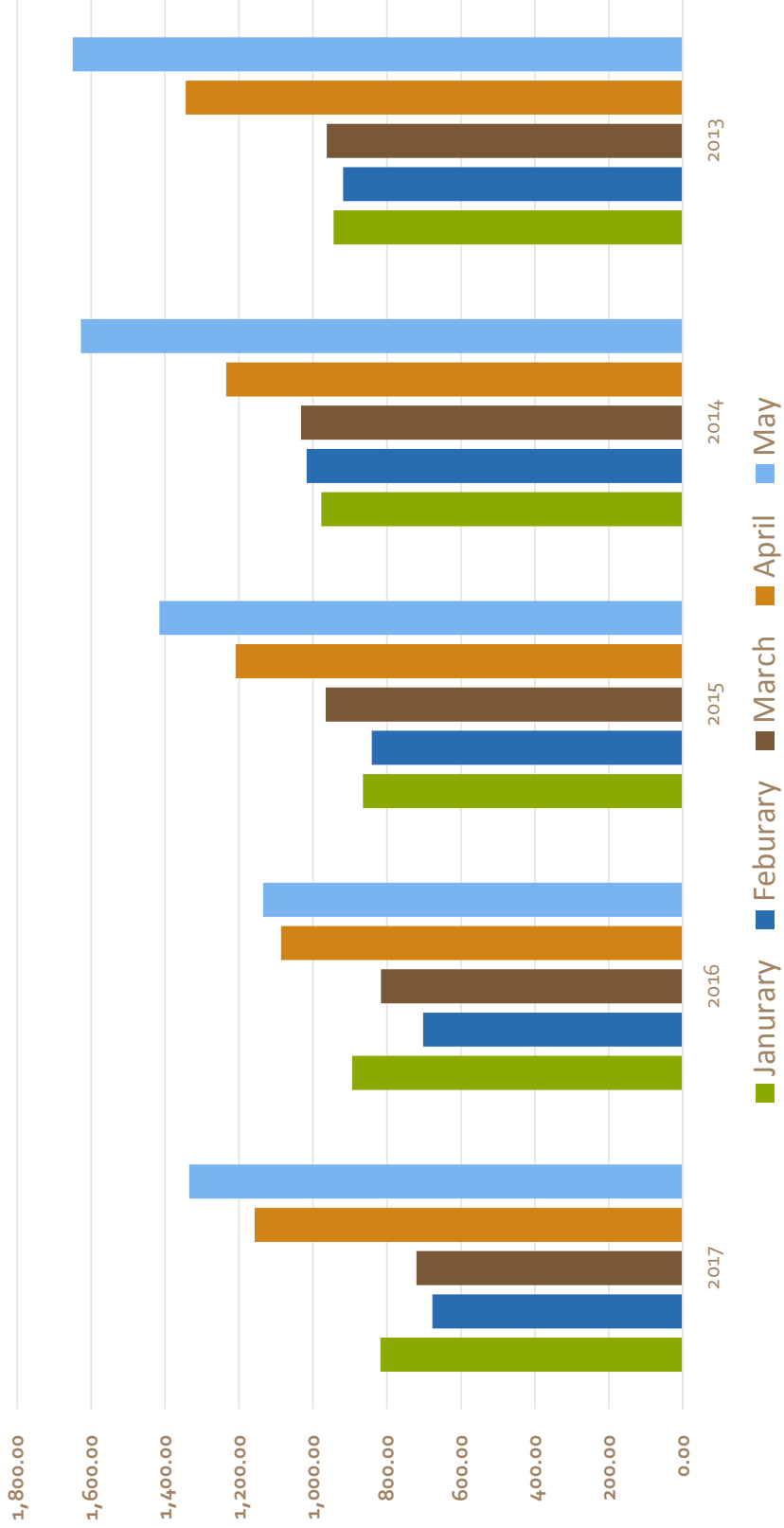
21,500 AF Needed Absent Conservation					Conservation % Required With Each Component
2014					
RESOURCE COMPONENT	Shortage	ACRE FEET	CUMULATIVE		
Groundwater	9,000	12,500	12,500		42%
Health and Safety Needs DWR	7,150	1,850	14,350		33%
Banked Groundwater AV	4,679	2,471	16,821		22%
Littlerock Dam	3,679	1,000	17,821		17%
PWD TA	2,614	1,065	18,886		12%
Butte TA Allocation	2,044	570	19,456		10%
Yuba Accord	1,544	500	19,956		7%
additional PWD GW (a)	544	1000	20,956		3%
additional PWD GW (b)	44	500	21,456		0%
New exchange Water	-1,456	1500	22,956		-7%
CLWA	-2,456	1000	23,956		-11%
MWA	-3,456	1000	24,956		-16%

PWD's 2017 water demands could theoretically be met by utilizing State Water Project Table A allocations alone

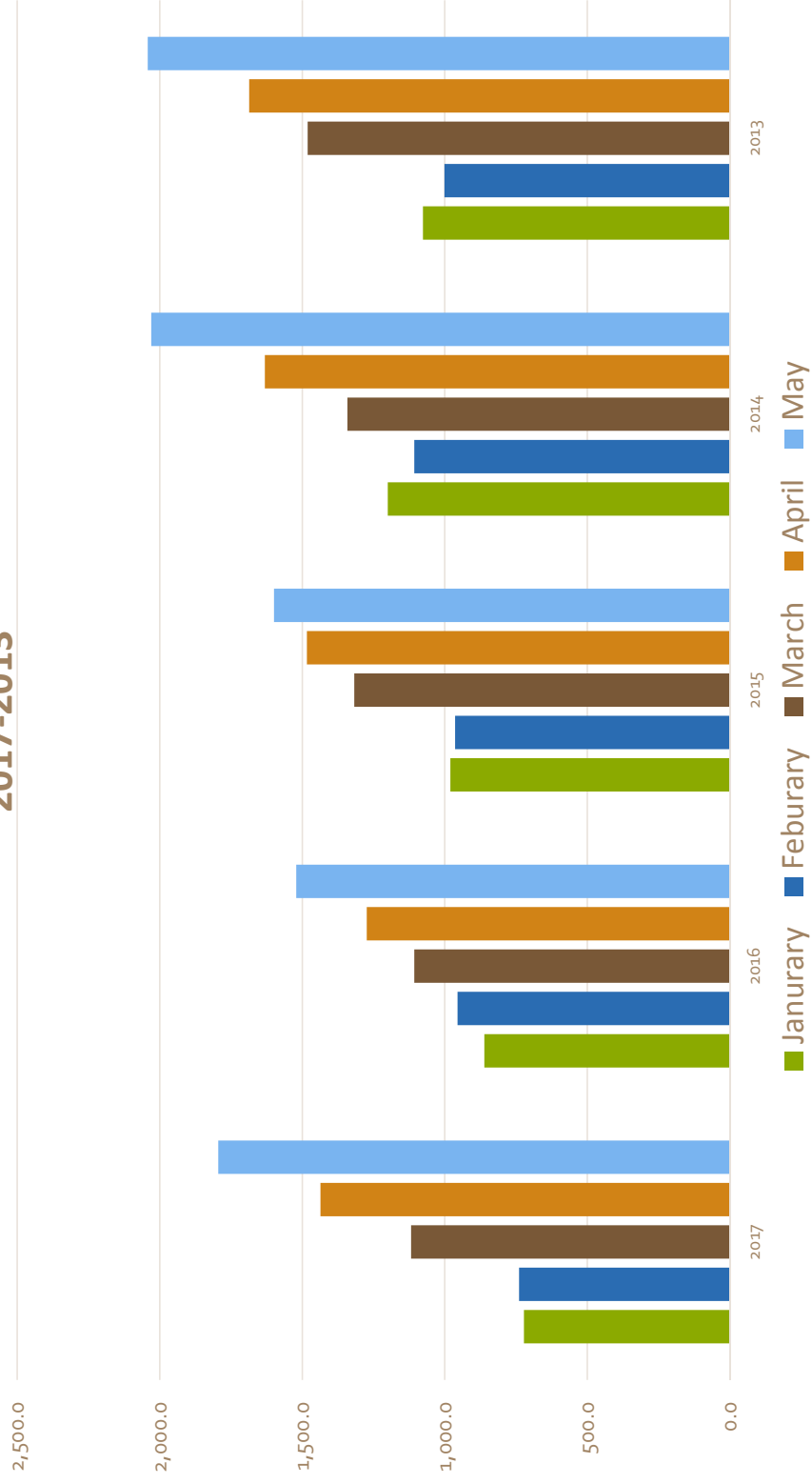
PWD and Butte lease Table A quantities total 26,605 Acre Feet this year

18,500 AF Needed Absent Conservation					Conservation % Required With Each Component
2017 @ 85 % SWP Allocation					
RESOURCE COMPONENT	SHORTAGE	ACRE FEET	CUMULATIVE		
Groundwater	-9000	4,500	4,500		77%
SWP Table A @85%	-7330	18,105	22,605		-16%
Banked Groundwater AV	1,105	0	22,605		-16%
Littlerock Dam SW	2,105	1,000	23,605		-21%
Butte TA Allocation	10,605	8,500	32,105		-65%
Yuba Accord	10,605	0	32,105		-65%
Dry Year Purchase Prog.	10,605	0	32,105		-65%
MYWP	10,605	0	32,105		-65%
additional PWD GW (b)	10,605	0	32,105		-65%
New exchange Water	10,605	0	32,105		-65%
Butte Additional	10,605	0	32,105		-65%
	10,605	0	32,105		-65%

## 5 MONTH 5 YEARS CONSUMPTION COMPARISONS 2017-2013



## 5 MONTH 5 YEARS PRODUCTION COMPARISON 2017-2013



## Currently available major supply components

- SWP Table A is comprised of PWD's 2017 allocation and available SWP supplies through our Butte County lease
- Littlerock Dam (LRD) quantity shown is the amount of water currently held in the reservoir and does not reflect any additional seasonal inflow
- Ground Water quantity shown is a normal year average extraction quantity

	Max Supply	Planned PWD Use
SWP TA	26,605	14,500
LRD	2,784	500
G W	10,000	4,000

## Excess supply components and their disposition (AF)

- SWP Table A excess supply of 12,105 is scheduled to be dispersed as follows:  
5,000 AF to Carryover, 2,500 AF to SBVMWD exchange return, 850 AF to CCWA exchange return water, 500 AF to evaporation refill Lake Palmdale (Total planned use of excess = 8,850 AF)
- Littlerock Dam (LRD) The stored quantity will be held in the reservoir for future use in 2018 or portions to top off Palmdale Lake in peak demands due to contractual limitations in allowable CFS from the SWP
- Ground Water extractions will be scaled back according to need

	Excess Supply	Unassigned
SWP TA	12,105	3,255
LRD	1,784	0
G W	6,000	0

## We still have 3 to 4 thousand Acre Feet of 2017 water we haven't found a home for

All State Water Project Contractors are faced with the same dilemmas :

1. Overly abundant supplies with reduced demands
2. limitations on recharge capacity in available banking programs
3. Exchanges require a willing taker, supplies are extremely abundant
4. Contractual limitations on moving SWP water outside of the State Water Contract

