

MEMORANDUM

TO: CITY COUNCIL

FROM: GEOFF ENGLISH, DIRECTOR OF PUBLIC WORKS

BY: SHANE TAYLOR, UTILITIES MANAGER

SUBJECT: MONTHLY WATER SUPPLY AND DEMAND UPDATE

DATE: JULY 26, 2016

RECOMMENDATION:

It is recommended the City Council receive and review the monthly Water Supply and Demand Report.

IMPACT ON FINANCIAL AND PERSONNEL RESOURCES:

The cost to provide the report is limited to staff time, which equates to approximately \$350.

BACKGROUND:

The severe drought continues to impact the City's water supply and demand. As a result, the City Council declared a Stage 1 Water Shortage Emergency on May 26, 2015. This monthly update on the current supply and demand statistics will provide the Council with the data required to make decisions related to Emergency Water Shortage Restrictions and Regulations.

ANALYSIS OF ISSUES:

The exceptional drought continues. We have received 13.5" of rain since July 1, 2015 at the Corporation Yard gauge. Lopez Lake is currently at 27.1% capacity (14,170 AF of storage). The Low Reservoir Level Response Plan (LRRP) has been enacted.

At the Zone 3 Advisory Board meeting on May 21, 2015, the Board recommended that the deliveries from the Water Treatment Plant be reduced by 10% starting April 1, 2015. This was in advance of the Lake reaching 15,000 AF of storage, which is the automatic reduction trigger. We are voluntarily reducing deliveries by 20% to keep lake supply above the 10,000 AF level, which mandates an automatic 20% reduction retroactive back to April 1, 2016.

In June, the City's water use was 38% below June 2013. The reduction requirement imposed by the State Water Resources Control Board for Arroyo Grande is 28%.

**CITY COUNCIL
MONTHLY WATER SUPPLY AND DEMAND UPDATE
JULY 26, 2016
PAGE 2**

Based on current use and weather patterns, Lopez Lake, as predicted, reached the 15,000 AF storage level around November 1, 2015. The Lopez supply for water year 2016/17, which began April 1, 2016, for Arroyo Grande is 2,998 AF, which includes 936 AF of carry-over water. Based on the projected water demand of 2,300 AF, we will meet the demand in water year 2016/17.

ADVANTAGES:

No advantages noted at this time.

DISADVANTAGES:

No disadvantages noted at this time.

ALTERNATIVES:

Not applicable at this time.

ENVIRONMENTAL REVIEW:

No environmental review is required for this item.

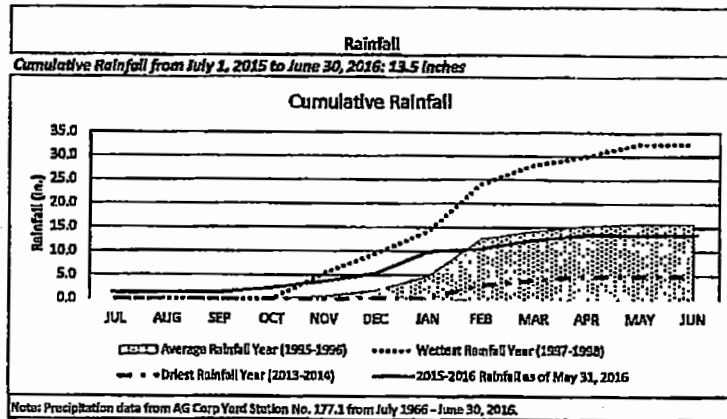
PUBLIC NOTIFICATION AND COMMENTS:

The Agenda was posted in front of City Hall on Thursday, July 21, 2016. The Agenda and staff report were posted on the City's website on Friday, July 22, 2016.

Attachments:

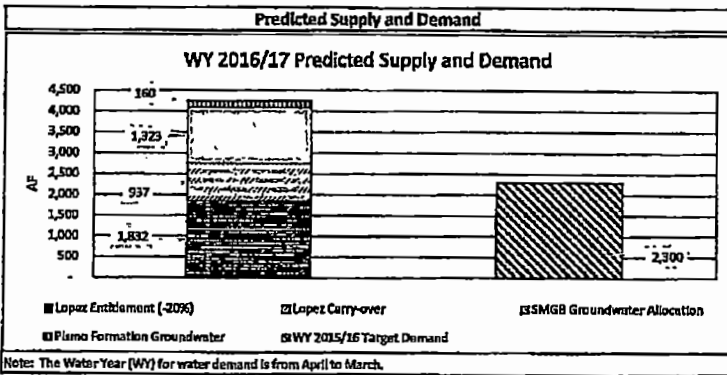
1. June 2016 Water Supply and Demand Charts
2. Lopez Reservoir Storage Projections

City of Arroyo Grande Water Supply and Demand Update-June 2016



Water Demand

<i>Total City Demand (AF)</i>	
June 2013	304.8
June 2016	188.0
% Difference from 2013	-38%
WY 2013/14 YTD	773.9
WY 2015/16 YTD	504.5
% Difference from WY 2013/14	-35%



Water Supply

Lopez Lake

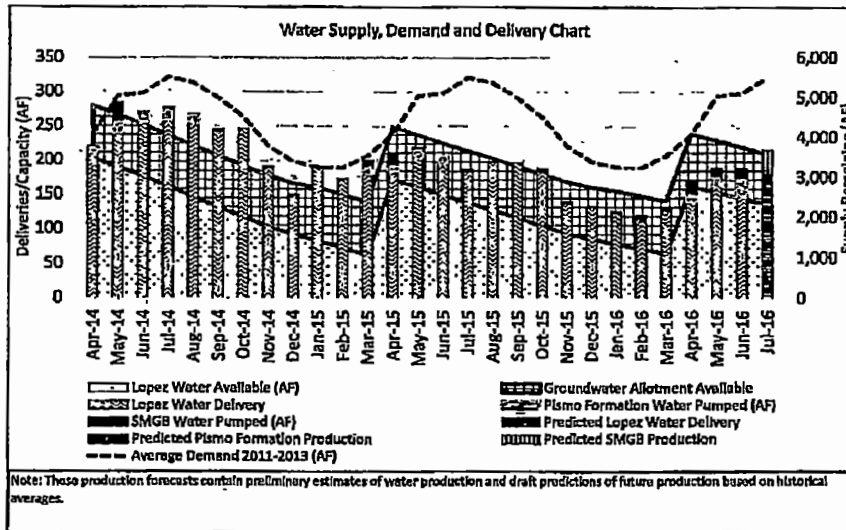
	<i>Jun-16</i>	<i>WY 15/16 Year to Date</i>	<i>Remaining Allocated Supply</i>
Lake Elevation (full at 522.37 ft)	465.44		
Storage (full at 49,200 AF)	13,614.1		
Storage - Percent Full	28%		
Status	Enacted		
Current Entitlement Reduction	20%		
Deliveries (AF)	149.20	449.36	2,319.24

Note: The Water Year (WY) for Lopez Lake is from April to March. The actual amount of storage in Lopez at the end of May 2016 was 13,678 AF; however, the storage amount and storage percentage above were adjusted to account for the 63.94 AF of stored Santa Water Project water in the lake.

Groundwater

	<i>Jun-16</i>	<i>Calendar Year to Date</i>	<i>Remaining Entitlement</i>
SMGB Production (AF)	23.8	72.8	1,250.2
Pismo Formation Production (AF)	15.0	38.3	NA

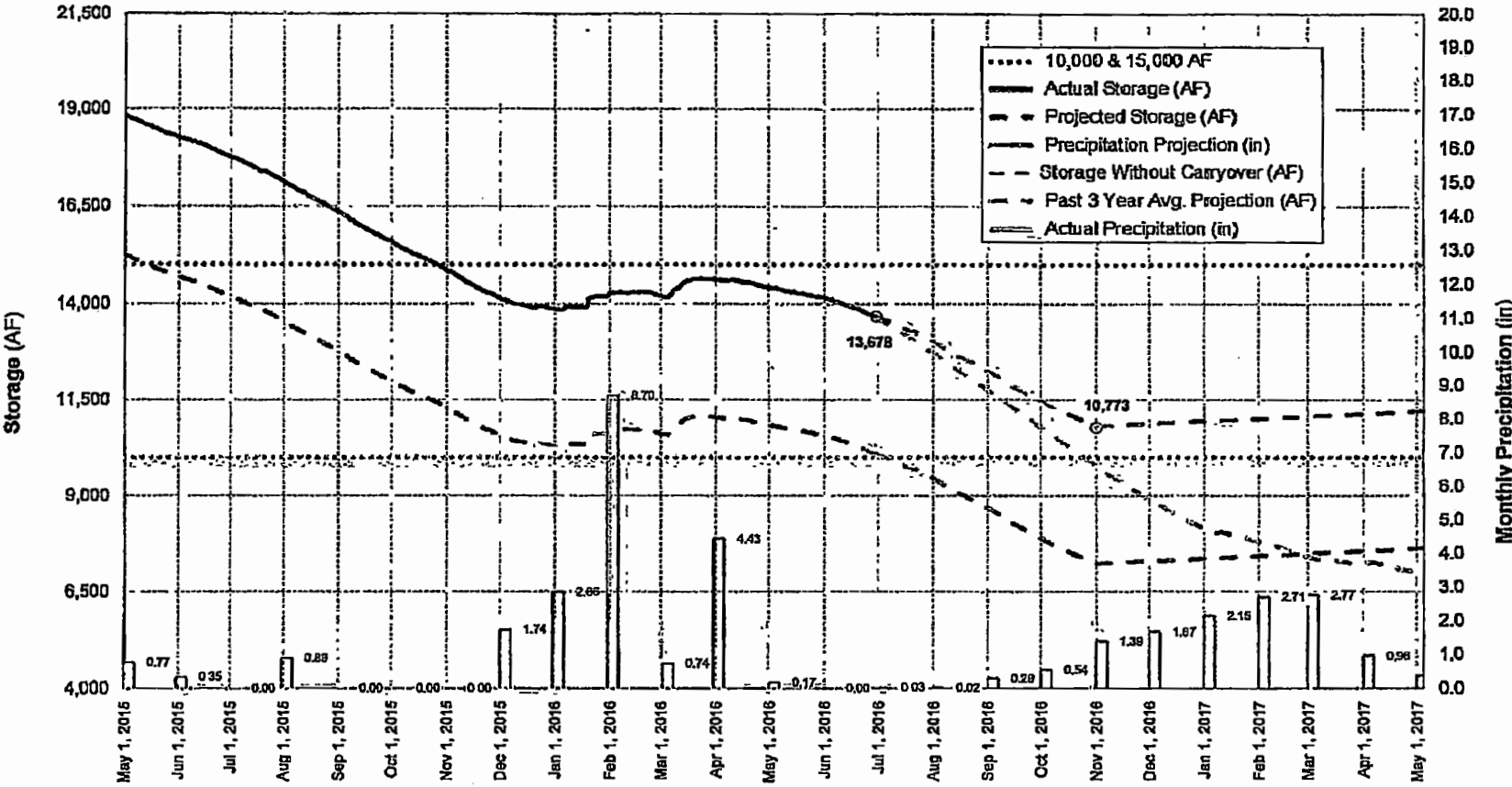
City SMGB average well levels for June 2016 were the same as June 2015.
 Note: Groundwater entitlement and production data is based on the calendar year.



Updated: 7/15/2016

Lopez Reservoir Storage Projections
 (precipitation scenario source: www.LongRangeWeather.com)

Revised: 8/30/2018



- Notes:
- For "Dry Months" (April - October), projected increases and/or decreases in storage estimated to mimic conditions from 2015.
 - For "Wet Months" (November - March), projected storage declines assume LRRP annual downstream release of 3,800 AFY and deliveries of 4,077 AFY.
 - For "Wet Months", projected storage increases based on historic trends from actual storm data for the period of 12/1993 through 6/2011.
 - Storage projection for "Wet Months" assume that unsaturated conditions exist.
 - Rainfall projection provided by www.LongRangeWeather.com, and updated 7/5/2018. Evaporation Included In storage projection.
 - Past 3 Year Avg. Projection uses historic daily capacity changes averaged from 2013, 2014, 2015