

MEMORANDUM

TO: CITY COUNCIL

FROM: BILL ROBESON, PUBLIC WORKS DIRECTOR

BY: SHANE TAYLOR, UTILITIES MANAGER

SUBJECT: CALENDAR YEAR 2019 WATER SUPPLY AND DEMAND UPDATE

DATE: JANUARY 28, 2020

SUMMARY OF ACTION:

The update reports the water supply and demand for Calendar Year 2019. Current Lopez Reservoir level and projected levels are provided in the attachments.

IMPACT ON FINANCIAL AND PERSONNEL RESOURCES:

Approximately two (2) hours of staff time is required to prepare the report.

RECOMMENDATION:

It is recommended the City Council receive and file the Calendar Year 2019 Water Supply and Demand Report.

BACKGROUND:

On April 25, 2017, the City Council, by Resolution, rescinded the Stage 1 Water Shortage Emergency along with related emergency water conservation measures and restrictions. During the public hearing the City Council requested staff to continue preparing the monthly water supply and demand updates. The Council urged citizens to continue to practice everyday water saving measures, and reiterated that the previously adopted water conservation measures were to remain in effect.

In 2019, the City's water use was 2,137.8 acre-feet with a per capita use of 108 gallons per day/per person. There was a total of 22.1 inches of rainfall in the City in 2019.

ANALYSIS OF ISSUES:

The United States Drought Monitor, as of January 16, 2020 shows San Luis Obispo County as normal. Rainfall to date (July 1, 2019 to December 31, 2019) is 6.5 inches at the Corporation Yard rain gauge. Lopez Lake, as of January 16, 2020, is at 51.8% capacity (25,605 acre-feet of storage).

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CALENDAR YEAR 2019 WATER SUPPLY AND DEMAND UPDATE
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The new water year began on April 1, 2019 and the City's current total available supply from Lopez is 2,290 acre-feet. In addition, the City has 1,323 acre-feet of ground water entitlement from the Santa Maria Basin and 200 acre-feet from the Pismo Formation. The projected water use for water year 2019/20 is 2,200 acre-feet if the City receives average rainfall.

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:

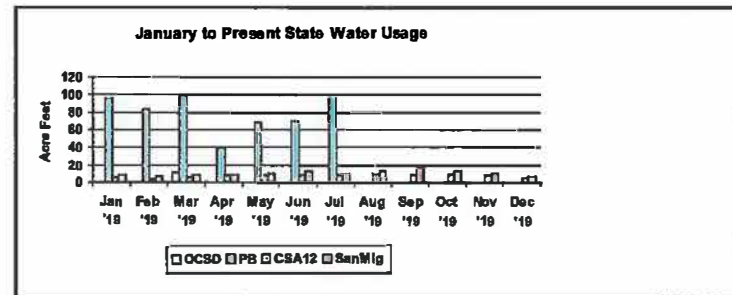
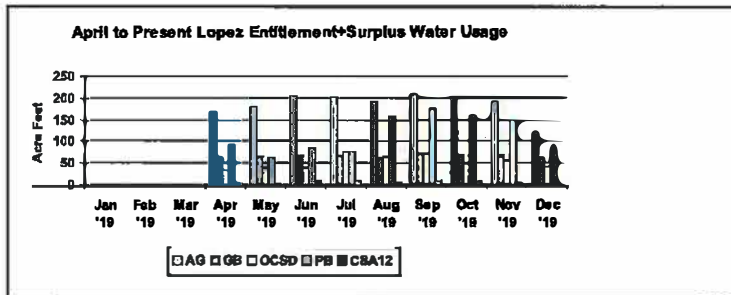
The Agenda was posted at City Hall and on the City's website in accordance with Government Code Section 54954.2.

Attachments:

1. Lopez Monthly Operations Report for December 2019
- 1.a. Lopez Monthly Operations Report for March 2019
2. Lopez Reservoir Storage Projection
3. Yearly Water Use Comparison

**San Luis Obispo County Flood Control and Water District
Zone 3 - Lopez Project - Monthly Operations Report
December, 2019**

Contractor	Lopez Water Deliveries													State Water Deliveries							Total Water Deliveries This Month			
	Entl.	Surplus Water Declared	Surplus Requested	Total Available Water	This Month				April to Present				Annual Request	This Month			January to Present							
					Entitlement Usage	Entitlement %	Surplus Usage	Surplus %	Entitlement Usage	Entitlement %	Surplus Usage	Surplus %		Usage	% of Annual Request	SWP Deliveries	Change in Storage	Usage	% of Annual Request	SWP Deliveries				
Arroyo Grande	2290	378.00	0.00	2668.00	123.57	5.4%	0.00	0.0%	1671.27	73.0%	0.00	0.0%	1671.27	73.0%									123.57	
Oceano CSD	303	50.00	400.00	353.00	0.00	0.0%	43.13	10.8%	303.00	100.0%	168.26	42.1%	471.26	67.0%	227	0.00	0.0%			10.98	4.8%			43.13
Grover Beach	800	132.00	20.00	932.00	61.56	7.7%	0.00	0.0%	590.30	73.8%	0.00	0.0%	590.30	72.0%									61.56	
Pismo Beach	892	147.00	200.00	1039.00	0.00	0.0%	93.28	46.6%	892.00	100.0%	155.87	77.9%	1047.87	96.0%	1120	0.00	0.0%			555.55	49.6%			93.28
CSA 12	245	40.00	0.00	285.00	4.10	1.7%	0.00	0.0%	59.82	24.4%	0.00	0.0%	59.82	24.4%	27	5.75	21.3%			89.37	331.0%			9.85
San Miguelito															127	6.51	5.1%			123.37	97.1%			6.51
Total	4530	747.00	620.00	5277.00	189.23	4.2%	136.41	22.0%	3516.39	77.6%	324.13	52.3%	3840.52	74.6%	1501	12.26	0.8%	69	56.74	779.27	51.9%	848.08	337.90	
													Last Month Stored State Water			1399.51			This Month Stored State Water			1456.25		



Note: Deliveries are in acre feet. One acre foot = 325, 850 gallons or 43, 560 cubic feet. Safe yield is 8,730 acre feet.

"Year to Date" is January to present for State water, April to present for Lopez deliveries, and July to present for rainfall.

Lopez Dam Operations	This Month	Year to Date		
Lake Elevation (full at 522.37 feet)	491.27		Difference (feet)	-31.10
Storage (full at 49200 acre feet)	25708		% Full	52.3%
Rainfall	5.77	8.36		
Downstream Release (4200 acre feet/year)	86.6	1886.19		
Spillage (acre feet)	0	0.00		

Comments: Available Surplus Water is shown and as designated per BOS May 14, 2019 Declaration of Surplus Water. Beginning with July report, Surplus water shown will be amount purchased by each agency.

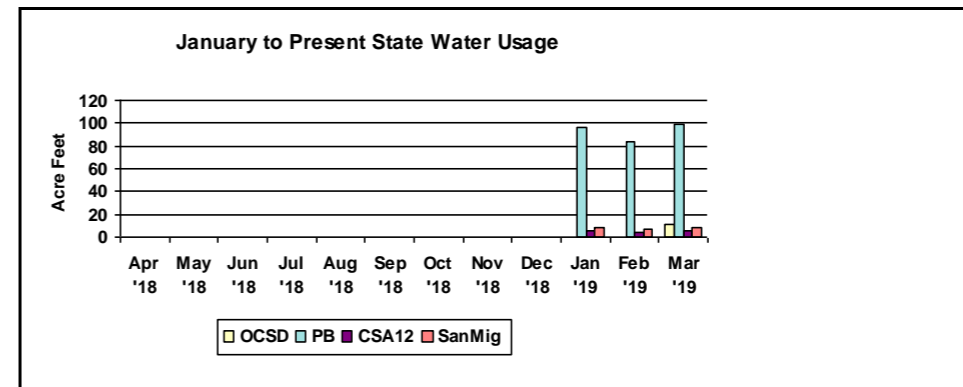
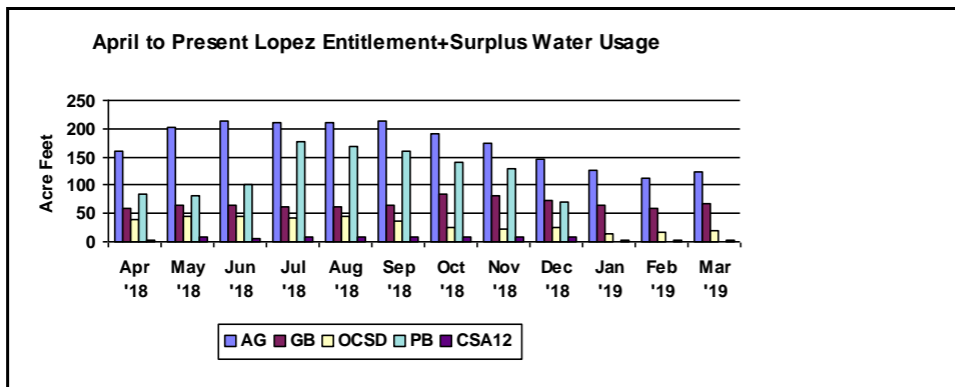
1) Oceano supplied water to Canyon Crest via Arroyo Grande's Edna turn out. A total of 0.94 AF delivered to Canyon Crest was added to Oceano's water usage this month and 0.94 AF was subtracted from Arroyo Grande's usage this month.

Surplus water calculations are based on "Surplus Requested" not "Surplus Water Declared"

San Luis Obispo County Flood Control and Water District
 Zone 3 - Lopez Project - Monthly Operations Report
 March, 2019

ATTACHMENT 1a

Contractor	Lopez Water Deliveries											State Water Deliveries					Total Water Deliveries This Month						
	Entl.	Surplus	Total	This Month				April to Present				Annual Request	This Month			January to Present							
				Entitlement		Surplus		Entitlement		Surplus			Total		Usage	% of Annual Request		SWP Deliveries	Change in Storage	Usage	% of Annual Request	SWP Deliveries	
				Usage	%	Usage	%	Usage	%	Usage	%		Usage	%									
Arroyo Grande	2290	564.00	2854.00	124.37	5.4%	0.00	0.0%	2084.03	91.0%	0.00	0.0%	2084.03	73.0%									124.37	
Oceano CSD	303	75.00	378.00	0.00	0.0%	19.62	26.2%	303.00	100.0%	75.00	100.0%	378.00	100.0%	227	10.98	4.8%				10.98	4.8%		30.6
Grover Beach	800	197.00	997.00	57.71	7.2%	9.04	4.6%	800.00	100.0%	9.04	4.6%	809.04	81.1%									66.75	
Pismo Beach	892	220.00	1112.00	0.00	0.0%	0.00	0.0%	892.00	100.0%	220.00	100.0%	1112.00	100.0%	1120	98.50	8.8%				278.55	24.9%		98.5
CSA 12	245	60.00	305.00	2.80	1.1%	0.00	0.0%	74.13	30.3%	0.00	0.0%	74.13	24.3%	27	5.55	20.6%				15.78	58.4%		8.35
San Miguelito														127	7.77	6.1%				22.50	17.7%		7.77
Total	4530	1116.00	5646.00	184.88	4.1%	28.66	2.6%	4153.16	91.7%	304.04	27.2%	4457.20	78.9%	1501	122.80	8.2%	76	-46.80	327.81	21.8%	205.00	336.34	
													Last Month Stored State Water		1311.51			This Month Stored State Water		1264.71			



Note: Deliveries are in acre feet. One acre foot = 325, 850 gallons or 43, 560 cubic feet. Safe yield is 8,730 acre feet.

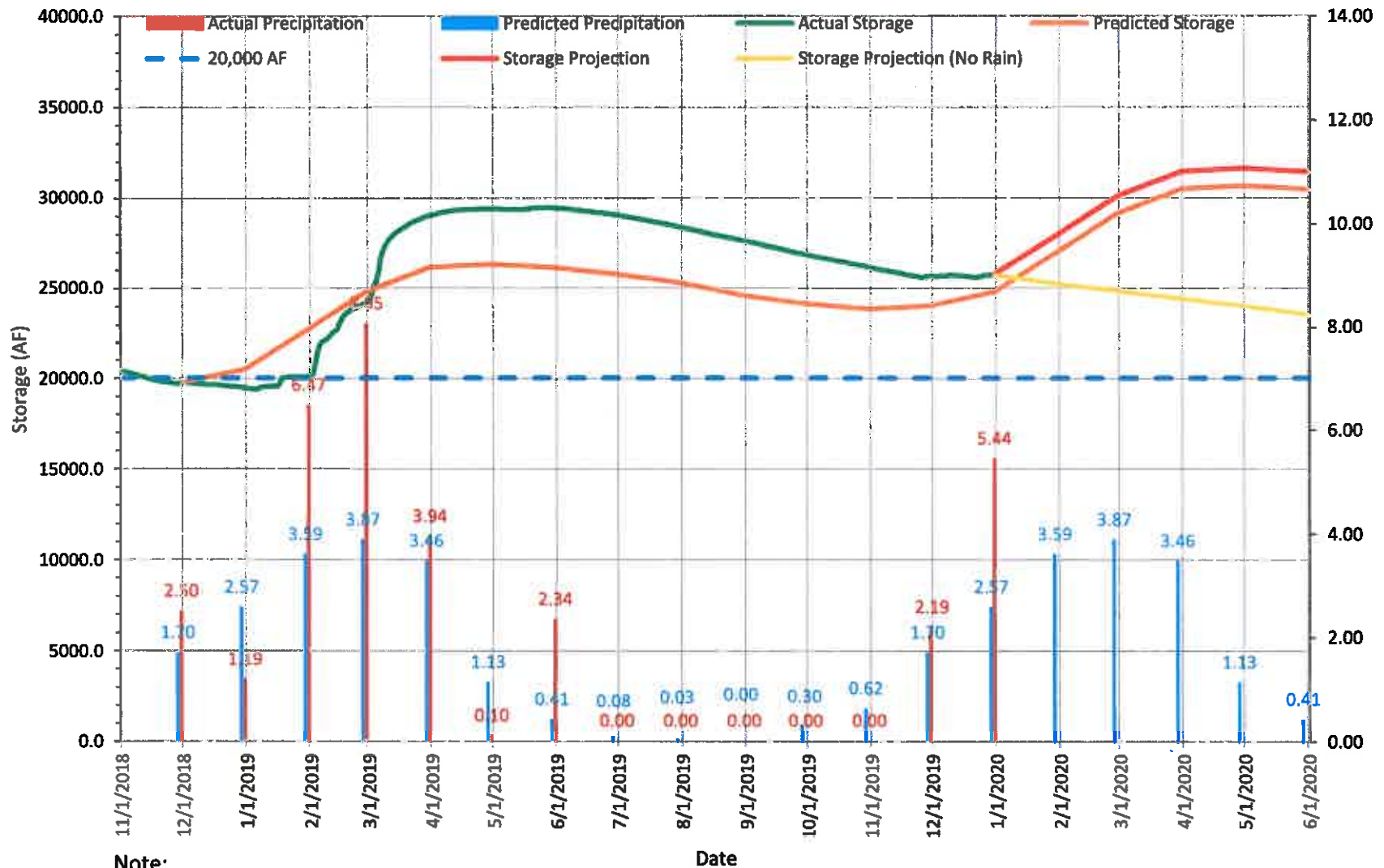
"Year to Date" is January to present for State water, April to present for Lopez deliveries, and July to present for rainfall.

Lopez Dam Operations	This Month	Year to Date		
Lake Elevation (full at 522.37 feet)	496.59		Difference (feet)	-25.78
Storage (full at 49200 acre feet)	29008		% Full	59.0%
Rainfall	5.19	26.11		
Downstream Release (4200 acre feet/year)	196.41	3830.12		
Spillage (acre feet)	0	0.00		

Comments: Surplus water shown is as designated per BOS May 15, 2018 Declaration of Surplus Water.

1) Oceano supplied State Water to Canyon Crest via Arroyo Grande's Edna turn out. A total of 1.1 AF delivered to Canyon Crest was added to Oceano's State Water usage this month and 1.1 AF was subtracted from Arroyo Grande's usage this month.

LOPEZ RESERVOIR STORAGE PROJECTION



Note:

1. Storage projection is based on predicted rainfall from longrangeweather.com, historic inflow based on predicted rainfall, 18-19 downstream release requests, and municipal usage.

