



MEMORANDUM

TO: City Council

FROM: Bill Robeson, Assistant City Manager/Public Works Director

BY: Shane Taylor, Utilities Manager

SUBJECT: Monthly Water Supply and Demand Update

DATE: February 22, 2022

SUMMARY OF ACTION:

The update reports the City's total water supply and demand for January, 2022. 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:

Receive and file the monthly Water Supply and Demand Report.

BACKGROUND:

On October 12, 2021, the City Council adopted a Resolution declaring a Stage 1 Water Shortage Emergency, and implementing emergency water conservation measures and restrictions as a result of the extreme drought conditions.

In January, the City's water use was 131.3 acre-feet with a per capita use of 78 gallons per day/per person. There was a total of 0 inches of rainfall in the City in January, 2022.

ANALYSIS OF ISSUES:

The United States Drought Monitor, as of February 8, 2022, shows San Luis Obispo County in a moderate drought. Rainfall to date for the period July 1, 2021, through January 31, 2022, is 7.23 inches at the Corporation Yard rain gauge. Lopez Lake, as of February 8, 2022, is at 29.8% capacity (14,736).

The new water year began on April 1, 2021, and the City's annual Lopez contract supply was 2,290 acre-feet. On August 24, 2021, the San Luis Obispo County Board of Supervisors (Board) enacted the Low Reservoir Response Plan (LRRP) for Lopez Lake. On September 8, 2021, the Zone III Technical Advisory Committee endorsed the action

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of reducing contract deliveries by 10%. The City began reducing the flow of Lopez Lake deliveries on September 15, 2021, to 1.9 million gallons per day, compared to the normal flow of 2.2 million gallons per day. Currently, the deliveries from the Water Treatment Plant are at 1.6 million gallons per day. In addition, the City has 1,323 acre-feet of ground water entitlement from the Santa Maria Basin, and wells within the Pismo Formation that produce approximately 160 acre-feet per year. The first quarter monitoring for the Santa Maria Basin sentry wells was completed on January 4, 2022. The deep well index was 9.36 feet above sea level, which is 1.86 feet higher than the deep well index threshold value of 7.5 feet and 0.08 feet higher than the index value one year ago. The recent rainfall in December did raise Lopez Lake from 28% to 30% full, however the LRRP remains in effect, along with Stage 1 water shortage emergency mandatory reductions. The projected water use for the City of Arroyo Grande for water year 2021/22 is 2,450 acre-feet based on current rainfall.

ALTERNATIVES:

Not applicable at this time.

ADVANTAGES:

This report provides the City Council and the public with the current and projected conditions of our water supply and demand.

DISADVANTAGES:

No disadvantages noted 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

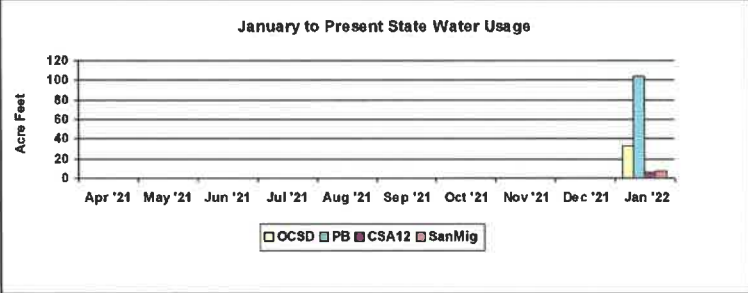
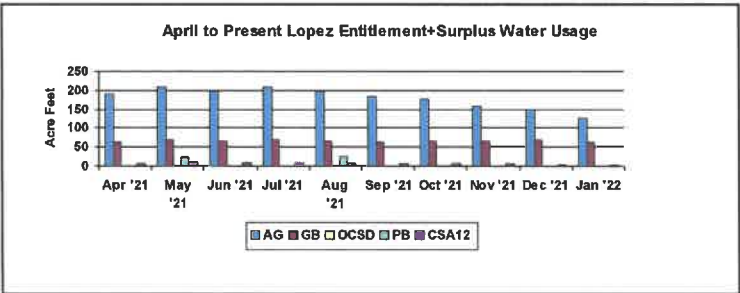
Attachments:

1. Lopez Monthly Operations Report for January, 2022
2. Lopez Reservoir Storage Projection
3. Monthly Water Use Comparison
4. Monthly Monitoring Report for January, 2022

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San Luis Obispo County Flood Control and Water District
 Zone 3 - Lopez Project - Monthly Operations Report
 January, 2022

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				This Month				January to Present									
					Usage	%	Usage	%	Usage	%	Usage	%	Annual Request	Usage	% of Annual Request	SWP Deliveries	Change in Storage	Usage		% of Annual Request	SWP Deliveries					
Arroyo Grande	2061	807.00	807.00	2868	127.63	6.2%	0.00	0.0%	1798.44	87.3%	0.00	0.0%	1798.44	62.7%									127.63			
Oceano CSD	272.7	107.00	107.00	380	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	750	33.06	4.4%						33.06			
Grover Beach	720	282.00	282.00	1002	62.33	8.7%	0.00	0.0%	661.37	91.9%	0.00	0.0%	661.37	66.0%									62.33			
Pismo Beach	802.8	314.00	314.00	1117	0.00	0.0%	0.00	0.0%	46.13	5.7%	0.00	0.0%	46.13	4.1%	1240	103.91	8.4%						103.91			
CSA 12	220.5	86.00	86.00	307	3.50	1.6%	0.00	0.0%	63.41	28.8%	0.00	0.0%	63.41	20.7%	96	5.94	6.2%						5.94			
San Miguelito															120	7.81	6.5%						7.81			
Total	4077	1596.00	1596.00	5673	193.46	4.7%	0.00	0.0%	2569.35	63.0%	0.00	0.0%	2569.35	45.3%	2206	150.72	6.8%	0	-150.72				150.72	6.8%	0.00	344.18
													Last Month Stored State Water		986.83					This Month Stored State Water		836.11				



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

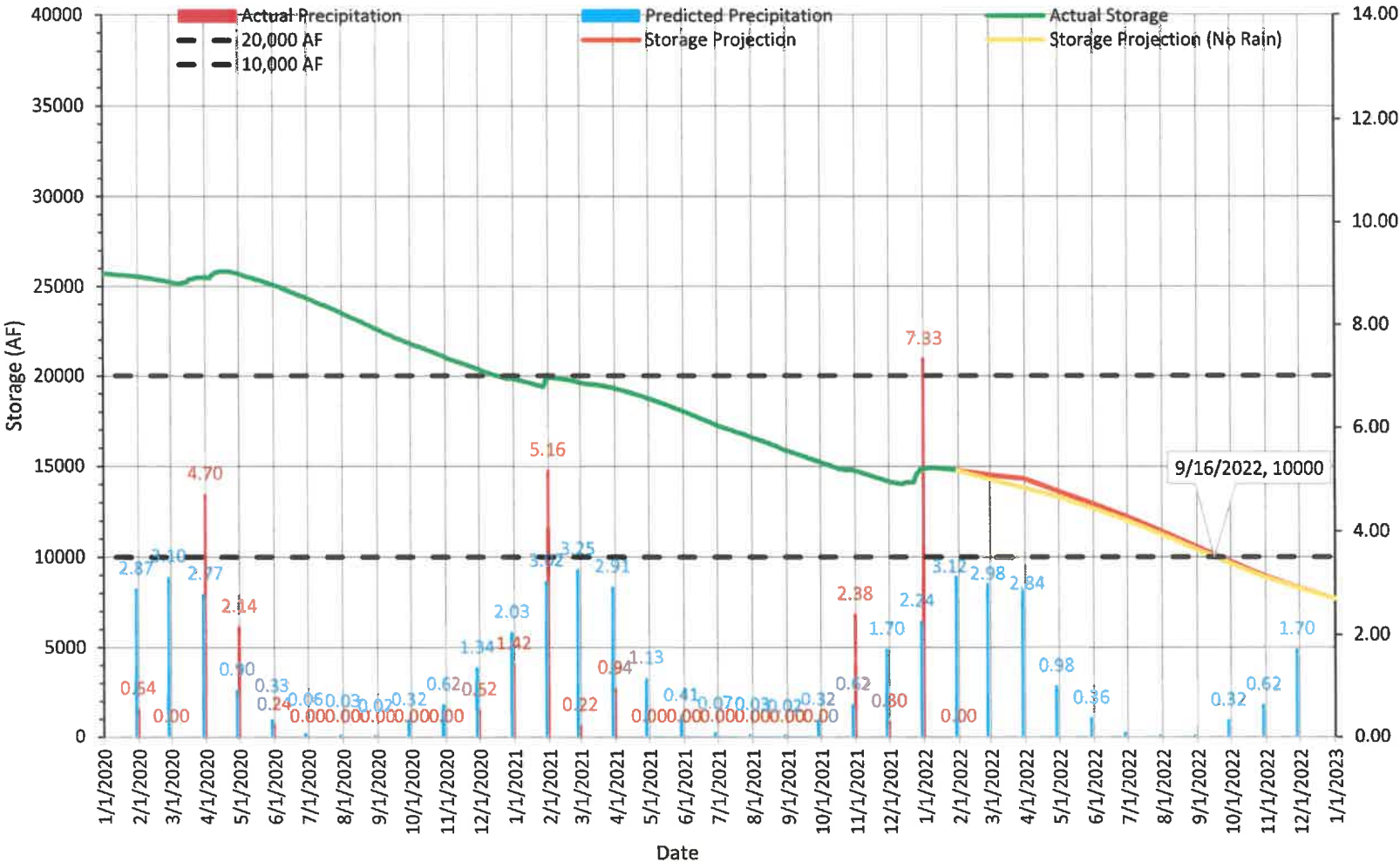
"Year to Date" is January to present for State water, April to present for Lopez deliveries, and July to present for rainfall.

Comments:

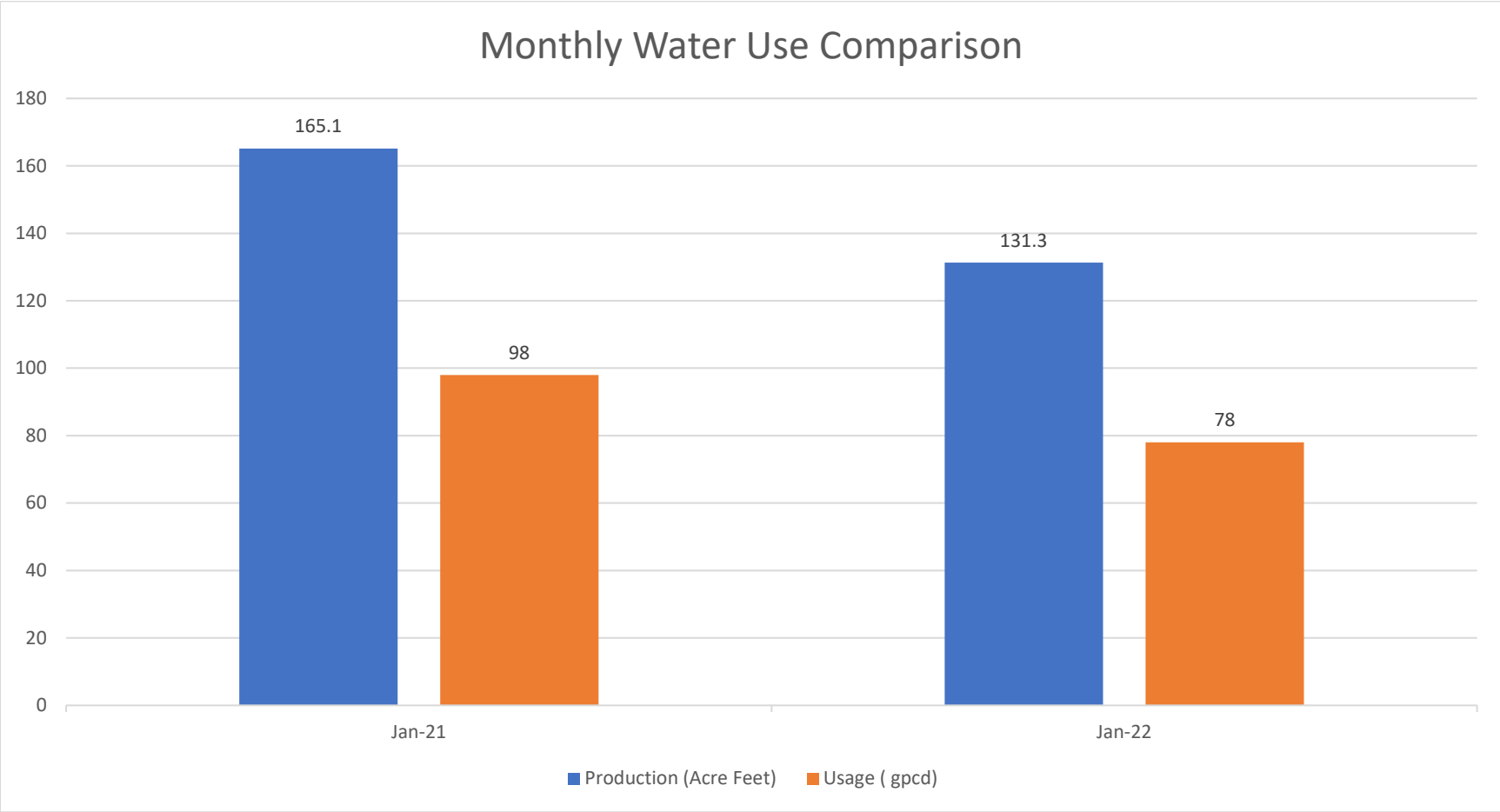
- 1) Oceano supplied water to Canyon Crest via Arroyo Grande's Edna turn out. A total of 1.38 AF delivered to Canyon Crest was added to Oceano's water usage this month and 1.38 AF was subtracted from Arroyo Grande's usage this month.
 - 2) Lopez Water Deliveries are now operated under the Low Reservoir Response Plan (LRRP). In August 2021 TAC requested a 10% entitlement reduction (retroactive to April 2021) in anticipation of reaching the 15,000 AF trigger of the LRRP. Entitlements shown represent a 10% reduction.
- Surplus water shown is actually "Carry Over" water as designated in the LRRP.

Lopez Dam Operations	This Month	Year to Date		
Lake Elevation (full at 522.37 feet)	468.32		Difference (feet)	-54.05
Storage (full at 49200 acre feet)	14755		% Full	30.0%
Rainfall	0.03	11.04		
Downstream Release (4200 acre feet/year)	237.84	2755.62		
Spillage (acre feet)	0	0.00		

LOPEZ RESERVOIR STORAGE PROJECTION



1. Storage projection is based on predicted rainfall from longrangeweather.com, inflow based on predicted rainfall, 20-21 downstream release requests, and municipal usage.
 2. Municipal Usage is based on Jan 2010- Dec 2020 average monthly deliveries.
 3. Predicted inflow is based off of historical precipitation and storage data. Antecedant moisture conditions are factored into the model. The first rainstorms after months without rain will cause less inflow than rainstorms during the rainy season. If the average daily rainfall for the previous three months is below 1 inch the model will multiply the predicted inflow by 0.1, if the average is above 1 inch the inflow is multiplied by 1.25.



Below is the information you have submitted for the month of January 2022. We use your most recently submitted monthly report in our calculations

Reporter	Shane Taylor
Urban Water Supplier(Number)	Arroyo Grande City of (608)
Public Water System ID(s)	CA4010001
Reporting Month	0122
County/Counties	San Luis Obispo
County Under Drought Declaration	Yes
Water Shortage Contingency Plan	1
Water Shortage Level	Yes
Population	17641
Total Potable Water Production	131.3 AF
Commercial Agricultural Water	0 AF
Residential Use Percentage	80 %
CII Water	14.4 AF
Recycled Water	0 AF
Non-revenue Water	AF
Estimated R-GPCD	62.59
Qualification	
Emergency Response Section Revealed?	Yes

State Water Resources Control Board Office of Research, Planning & Performance