



ZONE 3 ADVISORY COMMITTEE

San Luis Obispo County Flood Control and Water Conservation District

AGENDA

Thursday, Sept 19, 2019 6:30 P.M.

City of Grover Beach Council Chambers

154 S. Eighth Street, Grover Beach, California 93433

- I. CALL TO ORDER AND ROLL CALL
- II. PUBLIC COMMENT
This is an opportunity for members of the public to address the Committee on items that are not on the Agenda
- III. APPROVAL OF MEETING MINUTES
 - A. March 21 and July 18, 2019 – [Attachment 1](#)
- IV. OPERATIONS REPORT
 - A. Water Plant Operations, Reservoir Storage, Downstream Releases - [Verbal Update](#)
 - B. Projected Reservoir Levels – [Attachment 2](#)
 - C. July & August Monthly Operations Report – [Attachment 3](#)
- V. INFORMATION ITEMS
 - A. 4th Quarter Budget Status – [Attachment 4](#)
 - B. Water Supply Contract Changes – [Attachment 5 w/ Presentation](#)
- VI. CAPITAL PROJECTS UPDATE
 - A. Bi-Monthly Update – [Attachment 6](#)
- VII. ACTION ITEMS (No Subsequent Board of Supervisors Action Required)
- VIII. ACTION ITEMS (Board of Supervisors Action is Subsequently Required)
 - A. Cloud Seeding – [Attachment 7](#)
- IX. FUTURE AGENDA ITEMS
 - A. Contract Changes
 - B. Cloud Seeding
 - C. Low Reservoir Response Plan (LRRP)
 - D. Cost/Benefit Analysis of Abandoning Use of the Terminal Reservoir
- X. COMMITTEE MEMBER COMMENTS

Next Regular Meeting is Tentatively Scheduled for
November 14, 2019 at 6:30 PM at City of Arroyo Grande Council Chambers
Agendas accessible online at www.slocounty.ca.gov/pw/zone3

**SAN LUIS OBISPO COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
ZONE 3 ADVISORY COMMITTEE
DRAFT MEETING MINUTES
THURSDAY MARCH 21, 2019**

- I. **Call to Order and Roll Call** -- The Zone 3 Advisory Committee Meeting was called to order at 6:30 PM at the City of Arroyo Grande Council Chambers by Committee Chair and Member at Large Representative, Jim Garing.

County Public Works Utilities Division Program Manager and Secretary to the Advisory Committee, Andrea Montes, called roll. Members in attendance were:

- Kristen Barneich, City of Arroyo Grande
- Marcia Guthrie, City of Pismo Beach
- Jim Garing, Member at Large
- Shirley Gibson, Oceano Community Services District
- Desire Lance, City of Grover Beach

- II. **Public Comment** -- No public comment given

- III. **Approval of Meeting Minutes**

A. **January 17, 2019** -- Member Barneich motioned approval; Member Gibson second. *All approved; quorum was met, and motion passed.*

- IV. **Operations Report**

A. **Water Plant Operations, Reservoir Storage, Downstream Releases** -- Ms. Montes indicated: Lopez Lake elevation was 495.88 feet; storage was 28,551 acre-feet (AF), which is 58% capacity; rainfall to date, since July 1, 2018, was 26.04 inches; plant production was 3.0 million gallons per day (MGD); downstream release was 1.9 MGD; and State Water was 0.7 MGD.

B. **Projected Reservoir Levels** -- Jill Ogren, Senior Engineer with the Public Works Utilities Division, referring to the Lopez Reservoir Projections Chart, indicated that Lopez reservoir was above what was projected. Reservoir is still slowly rising from water runoff as the water shed is currently saturated. Member Barneich asked if all other reservoirs in the County are full as well. Ms. Ogren responded they are close to being full; Salinas Reservoir is currently spilling, Nacimiento is estimated at 75% capacity and Whale Rock Reservoir is above 50% capacity. Ms. Ogren noted that she has received numerous inquiries into why Lopez Reservoir is not gaining in elevation, the watershed characteristics, such as soil type and slopes, and overall rainfall patterns for the area compared to other areas in the County have an effect on amount of runoff and therefore the level of the reservoir. Ms. Ogren assured the Advisory Committee the required minimum downstream releases of 1.9 MGD are not significantly affecting the elevation levels. No public comment was given.

C. **January & February Monthly Operations Report** -- Ms. Ogren, reviewed the monthly operations reports with the committee. Total deliveries including State Water

for January were 320 AF and February was 350 acre-foot (AF). As of March 1st, three of the agencies are on target to use all of their annual entitlement. Oceano and Pismo have also begun using their Surplus water allocation. Grover Beach is anticipated to use all its entitlement by the end of the year.

Downstream releases year-to-date are at 3,600 AF, which is on target for what was planned, allowed maximum annual release is 4,200 AF, downstream releases are being kept to a minimum of 1.9 MGD to satisfy environmental mitigations related to the Rodriguez Bridge site.

No public comment was given.

V. Information Items

A. Climate Update -- Ms. Montes reported that according to the United States Drought Monitor, the County is not in a drought. Ms. Montes cautioned against assuming water conservation is no longer needed as conditions may change. According to National Oceanic and Atmospheric Administration, the temperature forecast for the month of March is 40% below average temperatures when compared to the month of March in prior years. The rainfall forecasted for March was 50% above average for the month.

No public comment was given.

B. 2nd Quarter FY 2018/19 Budget Status -- Kristi Smith, Public Works Finance, reviewed her staff report on the 2nd quarter budget status. She indicated agency total expenses at the end of the 2nd Quarter (50% of the year) were 34% of the annual budget. Routine O&M expenses were 45% of the budget leaving \$2.1 million available. Non-Routine O&M expenses were 16% of the budget leaving \$643,000 available, roughly half of the amount is for the HCP efforts and any unspent funds will be carried over into the following year. Some projects had savings and will be presented in the 3rd quarter budget update those savings will be credited back to the agencies. Capital Outlay Projects (CIP) expenses were \$0, leaving \$752,000 available, a 3rd of the budget had been carried over from the prior year and savings from completed projects will be credited back to the agencies. Ms. Smith noted all agencies are current on their payments.

No public comment was given.

VI. Capital Projects Update

A. Lopez Spillway Assessment Update -- Ms. Ogren gave an update of the Department of Water Resources (DWR) Division Safety of Dams' (DSOD) required assessment of the Lopez Spillway, in response to the Oroville Dam failure. Action Plan will be submitted to DSOD for review the week of March 25th. Once Action Plan is approved, the next step is physical destructive testing that will provide additional information for analysis as only a visual and desk top inspection has taken place. Testing may encompass core sampling, underdrain flushing, underdrain video, etc. Ms. Ogren noted the funding for the testing is not included in the 19/20 budget as estimated costs cannot be determined until after DSOD reviews and approves our recommendations for the next phase of testing. Member Guthrie requested

clarification on if the Destructive Testing will be related to previously reported vulnerabilities of the Spillway. Ms. Ogren confirmed the testing will be related to those reported vulnerabilities and added that if during testing further concerns of other vulnerabilities appear, that will trigger another Action Plan and DSOD would need to review for approval.

B. Floating Solar at Terminal Reservoir -- Ms. Ogren referenced the staff report in the agenda packet that discussed an option to help battle algae growth and associated odor issues at the Lopez Terminal Reservoir. Three alternatives were presented to resolve the issue; 1) Aerators, 2) Armor Balls and 3) Floating Solar. Of these alternatives, an acre of Floating Solar at the Terminal Reservoir would reduce algae growth by minimizing sunlight and provide a power saving alternative to offset costs for the Lopez Treatment Plant. Ms. Ogren explained the power purchase agreement being offered and any shortage of power would be supplemented through the current PG&E contract. Floating Solar will be discussed in further detail, once more is known about the program and needed approvals.

Member Guthrie requested clarification regarding who would maintain the Floating Solar System. Ms. Ogren confirmed the company would manage and maintain the solar once installed at the site.

Member Lance questioned if the Floating Solar would be done in addition to the current algae treatment. Ms. Ogren confirmed that the chemical treatment for algae would continue while the Floating Solar would reduce the volume of algae growth in the Reservoir. The hope would be to scale back treatment compared to what is being done presently. Member Lance requested clarification that the energy savings with Floating Solar would be strictly for the Lopez Treatment Plant. Ms. Ogren confirmed it would only be used to offset energy costs related to the plant.

Member Barneich requested clarification on how large of an area would be used for the Floating Solar, referencing an illustration included in the Agenda Packet. Ms. Ogren stated only one (1) acre of the 4-acre Terminal Reservoir surface would be covered near the intake structure.

Member Gibson requested clarification on the percentage of power to be received from Solar and PG&E, 85% Solar and 15% PG&E. Ms. Ogren confirmed those percentages.

Member Garing questioned if this option would be considered as a Net Metering System. Ms. Ogren stated that the contract with the solar energy company would be set to receive a certain amount of generated energy to avoid cases of lost energy from generating too much energy that would never be used.

No Public comment was given.

C. Bi-Monthly Update – Ms. Ogren, referencing the staff report on Capital Improvement Project Updates, presented the current list of projects to be completed and a brief discussion of the status of each project. Since the January meeting, there has not been much change in project status.

No Public comment was given.

VII. Action Items (No Subsequent Board of Supervisors Action Required)

No Action Items discussed.

VIII. Action Items (Board of Supervisors Action is Subsequently Required)

A. Fiscal Year 2019/20 Budget Presentation and Recommended Endorsement

– Ms. Smith reviewed the 19/20 Proposed Budget covering the budget review process and budget overview. Overall billings will increase 3.1% from prior year's budget. Routine O&M will drop by 2.5% due to reduction in budgeted hours for Utilities Division Engineer. Non-Routine O&M & Capital Outlay will increase 54.3% from prior year's budget. Over the last decade the average budget for both categories combined equaled \$750,000. This year would have been \$686,000 if not for the \$300,000 Cloud Seeding item. \$15,000 was budgeted to Contractor Funded Reserves. TAC suggested that up to \$110,000 in savings from not proceeding with Cloud Seeding in 18/19 could be used to increase the reserves instead of being credited back at the end of FY 19/20. Debt Service will drop by -0.9% as costs should remain level until the bonds are paid of in 2030 or refinanced.

Ms. Smith reviewed the labor hours, noting since the start-up of the Lopez Treatment Plant 07/08 hours had decreased. Hours increased again in 16/17 and 17/18. In 16/17, operations staff battled scaling of equipment. In 17/18, removal of wastewater duties allowed staff to concentrate on plant. A decrease is expected for 18/19 from several staff taking an extended leave due to health issues or family leave.

Endorsement for Fiscal Year 2019/20 Budget - Member Barneich motioned approval; Member Gibson seconded. Member Lance abstained; quorum was met, and motion passed

B. **Estimated Surplus Water for Water Year 19/20** – Ms. Ogren referred to the staff report for the agenda item and noted that there is an estimated 786 AF at this time. Clarification was given that the term Surplus does not mean “extra” water, but the difference between the agencies entitlement versus what they actually had delivered and the difference between the 4,200 AF downstream releases allotted vs what was actually released downstream. Actual Surplus Water amounts for Water Year 19/20 will be presented to the Board of Supervisors on May 14th for approval. Once approved, the Surplus Water will appear on the Monthly Operations Report under the Surplus Water column for the next water year. Ms. Ogren requested endorsement for recommending the Board of Supervisors declare Surplus Water as described in the Water Supply Contracts in an estimated amount of 786 AF.

Endorsement for Declaring Estimated Surplus Water for Water Year 19/20 – Member Barneich motioned approval; Member Gibson second. All approved; quorum was met, and motion passed.

No Public comment was given.

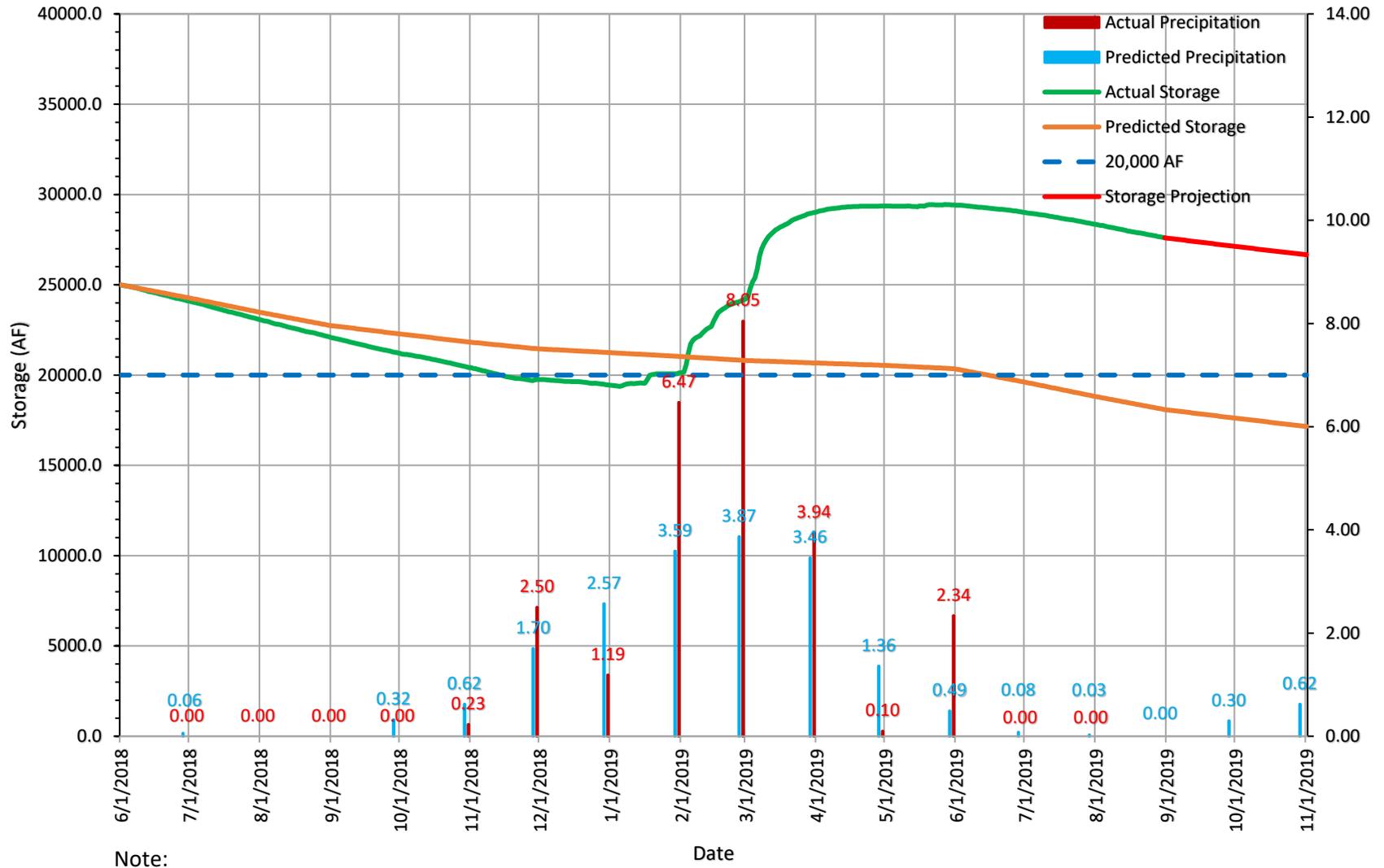
- IX. Future Agenda Items**
 - A. Contract Changes**
 - B. Cloud Seeding**
 - C. Low Reservoir Response Plan (LRRP)**
- X. Committee Member Comments -- No comments made.**

Meeting Adjourned at 8:01 PM

Respectfully Submitted,

Jenny Williamson
County of San Luis Obispo Public Works Department

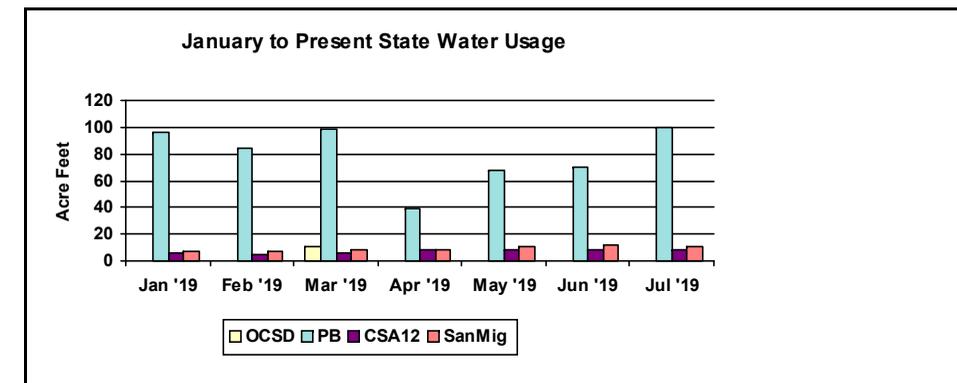
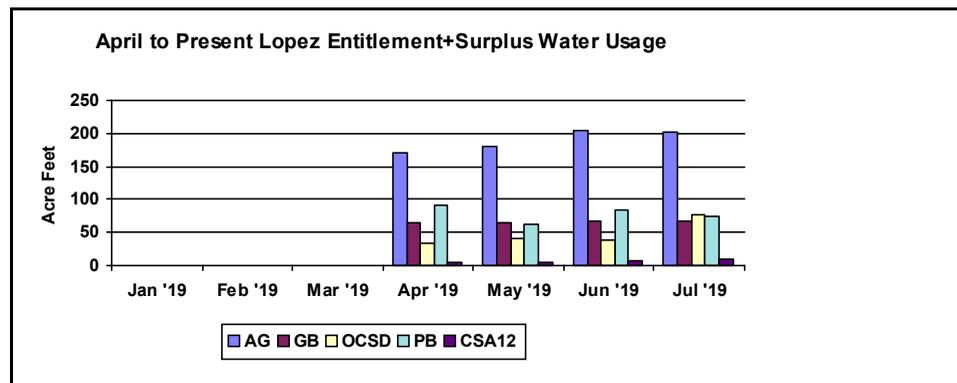
LOPEZ RESERVOIR STORAGE PROJECTION



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.

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

Contractor	Lopez Water Deliveries													State Water Deliveries					Total Water Deliveries This Month							
	Entl.	Surplus Water Declared	Surplus Requested	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	378.00	0.00	2668.00	202.00	8.8%	0.00	0.0%	755.63	33.0%	0.00	0.0%	755.63	28.3%										202		
Oceano CSD	303	50.00	400.00	353.00	76.34	25.2%	0.00	0.0%	188.91	62.3%	0.00	0.0%	188.91	53.5%	227	0.00	0.0%						10.98	4.8%		76.34
Grover Beach	800	132.00	20.00	932.00	66.85	8.4%	0.00	0.0%	262.58	32.8%	0.00	0.0%	262.58	28.2%											66.85	
Pismo Beach	892	147.00	200.00	1039.00	75.18	8.4%	0.00	0.0%	312.90	35.1%	0.00	0.0%	312.90	30.1%	1120	100.00	8.9%						555.55	49.6%		175.18
CSA 12	245	40.00	0.00	285.00	9.02	3.7%	0.00	0.0%	25.31	10.3%	0.00	0.0%	25.31	8.9%	27	8.21	30.4%						48.78	180.7%		17.23
San Miguelito															127	10.12	8.0%						63.93	50.3%		10.12
Total	4530	747.00	620.00	5277.00	429.39	9.5%	0.00	0.0%	1545.33	34.1%	0.00	0.0%	1545.33	29.3%	1501	118.33	7.9%	69	-49.33				679.24	45.3%	483.00	547.72
													Last Month Stored State Water		1240.61					This Month Stored State Water		1191.28				



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.

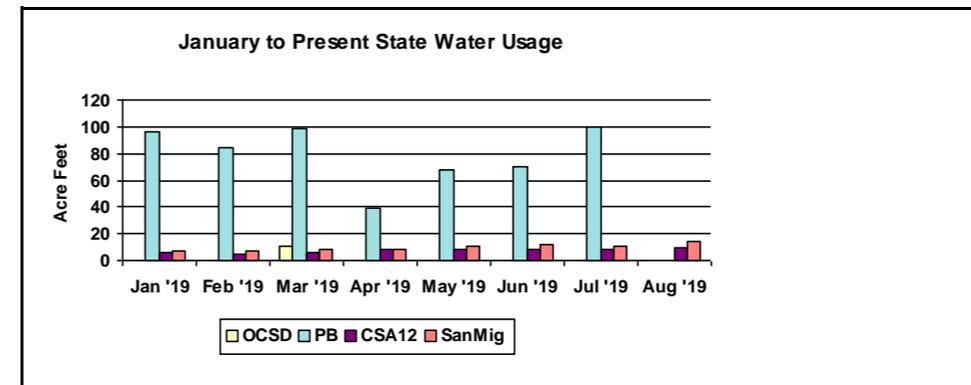
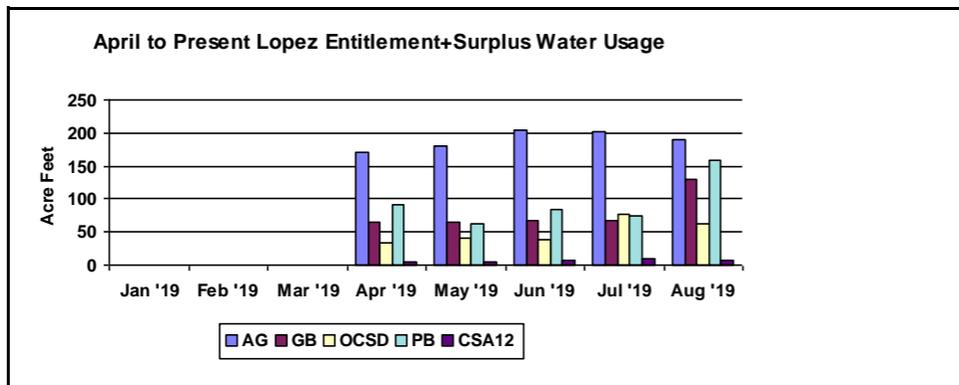
Lopez Dam Operations	This Month	Year to Date		
Lake Elevation (full at 522.37 feet)	495.59	-	Difference (feet)	-26.78
Storage (full at 49200 acre feet)	28365	-	% Full	57.7%
Rainfall	0	0.00		
Downstream Release (4200 acre feet/year)	194.26	749.42		
Spillage (acre feet)	0	0.00		

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 State Water to Canyon Crest via Arroyo Grande's Edna turn out. A total of 2.19 AF delivered to Canyon Crest was added to Oceano's State Water usage this month and 2.19 AF was subtracted from Arroyo Grande's usage this month.

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

Contractor	Lopez Water Deliveries											State Water Deliveries						Total Water Deliveries This Month						
	Entl.	Surplus Water Declared	Surplus Requested	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	378.00	0.00	2668.00	189.73	8.3%	0.00	0.0%	945.36	41.3%	0.00	0.0%	945.36	35.4%										189.73
Oceano CSD	303	50.00	400.00	353.00	63.32	20.9%	0.00	0.0%	252.23	83.2%	0.00	0.0%	252.23	71.5%	227	0.00	0.0%				10.98	4.8%		63.32
Grover Beach	800	132.00	20.00	932.00	129.73	16.2%	0.00	0.0%	392.31	49.0%	0.00	0.0%	392.31	42.1%										129.73
Pismo Beach	892	147.00	200.00	1039.00	157.96	17.7%	0.00	0.0%	470.86	52.8%	0.00	0.0%	470.86	45.3%	1120	0.00	0.0%				555.55	49.6%		157.96
CSA 12	245	40.00	0.00	285.00	6.46	2.6%	0.00	0.0%	31.77	13.0%	0.00	0.0%	31.77	11.1%	27	9.58	35.5%				58.36	216.1%		16.04
San Miguelito															127	13.71	10.8%				77.64	61.1%		13.71
Total	4530	747.00	620.00	5277.00	547.20	12.1%	0.00	0.0%	2092.53	46.2%	0.00	0.0%	2092.53	39.7%	1501	23.29	1.6%	70	46.71	702.53	46.8%	553.00	570.49	
											Last Month Stored State Water			1191.28		This Month Stored State Water			1237.99					



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)		494.42		Difference (feet)	-27.95
Storage (full at 49200 acre feet)		27626		% Full	56.2%
Rainfall		0	0.00		
Downstream Release (4200 acre feet/year)		237.22	986.64		
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 State Water to Canyon Crest via Arroyo Grande's Edna turn out. A total of 2.72 AF delivered to Canyon Crest was added to Oceano's State Water usage this month and 2.72 AF was subtracted from Arroyo Grande's usage this month.



September 19, 2019

MEMORANDUM

TO: Flood Control Zone 3 Advisory Committee
FROM: Kristi Smith, Accountant
SUBJECT: Flood Control Zone 3, Fourth Quarter Budget Status, Fiscal Year 2018-19

Recommendation

The item to be received and filed.

Summary

Attached please find a comparison of the budget to actual expenses for the fourth quarter of fiscal year 2018-19. The \$5.4M budget is broken into three categories: Routine Operations & Maintenance, Non-Routine Operations & Maintenance, and Capital Outlay. At the end of the fiscal year, expenses totaled 76% of the annual budget. Of the remaining \$1.3M, over \$900,000 will be carried into FY 2019-20 to continue Non-Routine efforts and complete Capital projects.

Total Budget	Expenses through Q4	Balance Available	% of Budget Expended
5,476,793	4,163,233	1,313,560	76%

Routine O&M: This category had a budget of just under \$4M dollars. At the end of the fiscal year, expenses were 95% of the annual budget, which resulted in a savings of \$213,277.

Total Budget	Expenses through Q4	Balance Available	% of Budget Expended
3,961,768	3,748,491	213,277	95%

Non-Routine O&M: This category had a budget of \$762,377. At the end of the fiscal year, expenses were 47% of the annual budget. The remaining budget is comprised of approximately \$352,000 that will be carried forward into FY 2019-20 for continued work (this is almost all for the Lopez Water Rights/Habitat Conservation Plan (HCP) efforts), and a savings of \$51,577 from the completion of several efforts. One such effort was Piggings. Budget had been carried forward for the last several years, even though no work had been performed. Since no work is scheduled for the foreseeable future, there is no reason to continue carrying budget forward. Therefore, the unspent budget for Piggings will be credited back to the agencies during the FY 2018-19 true-up.

Total Budget	Expenses through Q4	Balance Available	% of Budget Expended
762,377	359,123	403,254	47%
Estimated Carryforward:		351,677	
Estimated Savings:		51,577	

Capital Outlay: This category had a budget of \$752,648. At the end of the fiscal year, expenses were 7% of the annual budget. Most of the unspent budget will be carried forward into FY 2019-20 to continue the projects through to completion. Approximately \$117,000 in unspent budget from completed projects will be credited back to the agencies.

Total Budget	Expenses through Q4	Balance Available	% of Budget Expended
752,648	55,618	697,030	7%
Estimated Carryforward:		580,389	
Estimated Savings:		116,641	

Other Agency Involvement/Impact

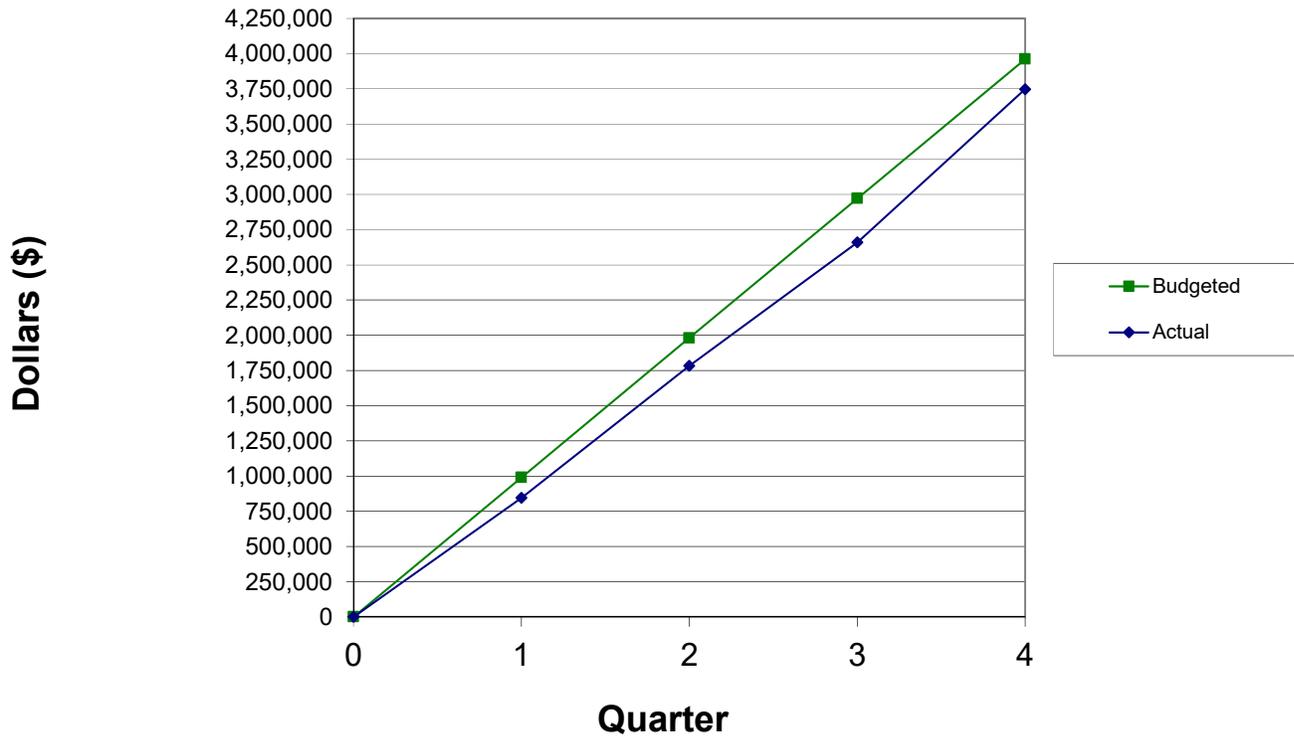
The agencies involved are: City of Arroyo Grande, City of Grover Beach, City of Pismo Beach, Oceano Community Services District, and County Service Area 12. Subcontractors of CSA 12 include Port San Luis Harbor District and Avila Beach Community Services District.

Financial Consideration

All agencies are current on their payments. The estimated credits for FY 2018-19 total \$381,495, which will be allocated to the agencies and mailed along with the 2nd installment of the FY 2019-20 billings that are due January 1, 2020.

Zone 3 Budget Status
4th Quarter FY18/19

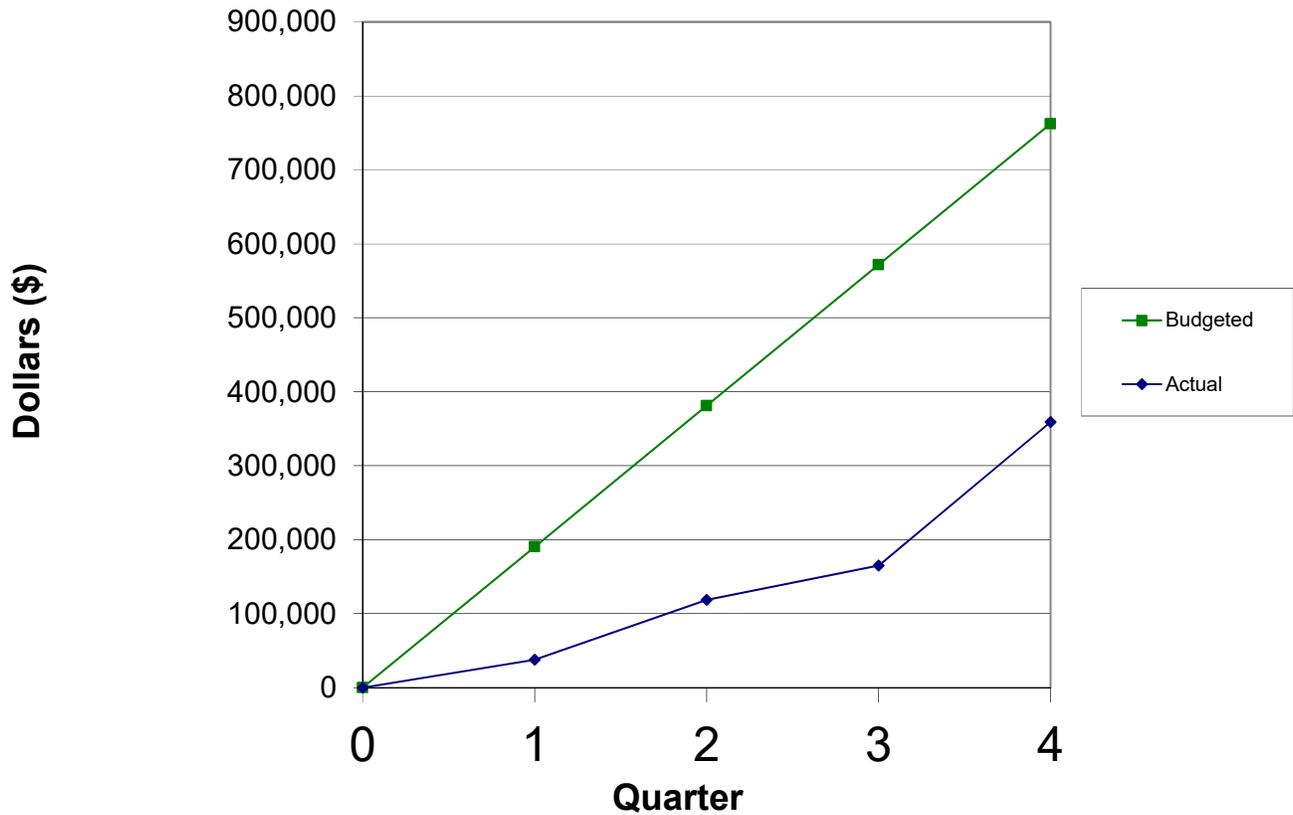
Routine Operation and Maintenance



O&M Routine Category	Total Budget	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Total Exp as % of Budget	Total Balance Avail
Labor Hours	24,926	4,902	4,853	5,848	5,703	21,306	85%	
Chemicals - Water Treatment Plant	\$ 416,239	\$ 104,864	\$ 128,785	\$ 76,741	\$ 129,883	\$ 440,273	106%	\$ (24,034)
Water Quality Testing - Treatment Plant	56,120	12,439	17,525	17,602	13,433	60,999	109%	(4,879)
Electricity - Water Treatment Plant	222,656	83,921	66,369	42,554	63,212	256,056	115%	(33,400)
All Other Costs - Water Treatment Plant	1,741,341	388,885	494,076	473,055	560,563	1,916,579	110%	(175,238)
Terminal	156,872	37,295	27,148	26,579	35,974	126,995	81%	29,877
Main Dam	301,828	60,538	38,527	63,583	114,765	277,413	92%	24,415
Other	1,066,712	157,459	165,793	176,621	170,303	670,176	63%	396,536
Expenses		845,401	938,222	876,735	1,088,133	3,748,491	95%	213,277
Budget	3,961,768	990,442	990,442	990,442	990,442	3,961,772		
Variance (over)/under		145,041	52,220	113,707	(97,691)	213,277		
% Variance		15%	5%	11%	-10%			

Zone 3 Budget Status
4th Quarter FY18/19

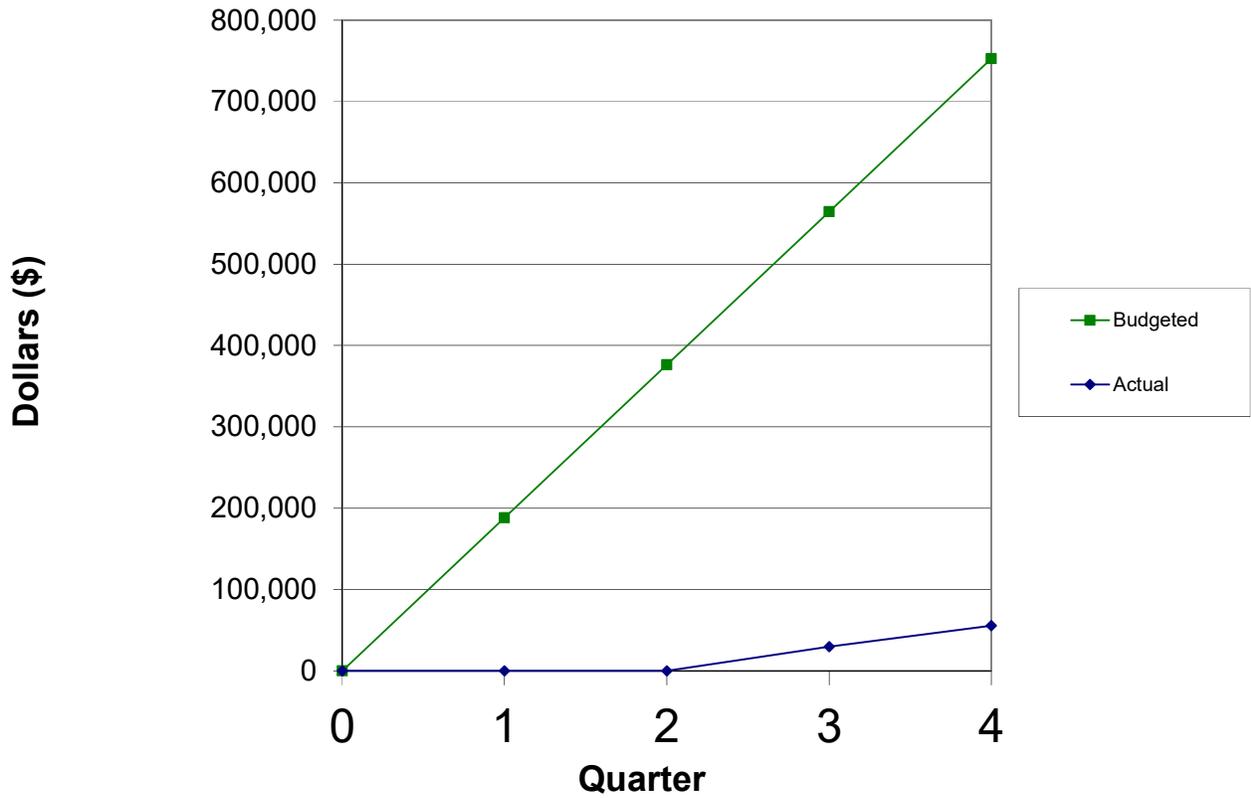
Non-Routine Operation and Maintenance



O&M Non Routine Category	Total Budget	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Total Exp as % of Budget	Total Balance Avail
Lopez Water Rights /HCP	\$ 324,482	\$ 864	\$ 6,010	\$ 410	\$ 729	\$ 8,014	2%	\$ 316,468
Pigging-Unit B completed	89,503	-	-	-	-	-	0%	89,503
Contribution to ISF for Shared New Equip	23,867	-	9,961	(358)	8,354	17,958	75%	5,909
Santa Maria Groundwater Basin Modeling comp	70,311	-	-	-	70,311	70,311	100%	(0)
Spill Prevention Valve #5 & #11 Replc completed	40,000	-	-	-	-	-	0%	40,000
5 Cities Stormwater Resource Plan completed	99,875	-	-	-	99,714	99,714	100%	161
Other	114,339	37,061	64,665	46,466	14,933	163,126	143%	(48,787)
Expenses		37,925	80,637	46,519	194,043	359,123	47%	403,254
Budget	762,377	190,594	190,594	190,594	190,594	762,377		
Variance (over)/under		152,669	109,957	144,076	(3,449)	403,254		
% Variance		80%	58%	76%	-2%			

Zone 3 Budget Status
4th Quarter FY18/19

Capital Outlay



Capital Outlay Projects	Total Budget	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Total Exp as % of Budget	Total Balance Avail
Cathodic Protection Maint	154,172	-	-	-	251	251	0%	153,921
Dam Intake Fac & Op Assessment completed	20,899	-	-	-	-	-	0%	20,899
Structural Assessment Term Resv Dam	-	-	-	-	3,092	3,092	-	(3,092)
Pressure Transducers completed	1,250	107	-	-	-	107	9%	1,143
Geologic Assessment Fault Zn Lft Abtmt complitd	12,691	-	-	-	-	-	0%	12,691
Domestic & Fireflow Tank Assessment	48,114	-	-	3,631	1,816	5,447	11%	42,667
Safety Upgrades to WTP	30,000	-	-	25,871	-	25,871	86%	4,129
Rebuild Membrane Feed Pumps	44,064	-	-	-	20,851	20,851	47%	23,213
Power Monitoring completed	30,000	-	-	-	-	-	0%	30,000
Improved Boat Access at Term Res	50,000	-	-	-	-	-	0%	50,000
Ammonia Analyzer Equip Repl	36,609	-	-	-	-	-	0%	36,609
Repair Fault Zone Left Dam Abutment	180,000	-	-	-	-	-	0%	180,000
Equip Storage Bldg 4-Bay PreFab	89,849	-	-	-	-	-	0%	89,849
Various Equipment Replacement	55,000	-	-	-	-	-	0%	55,000
Expenses		107	-	29,502	26,009	55,618	7%	697,030
Budget	752,648	188,162	188,162	188,162	188,162	752,648		
Variance (over)/under		188,055	188,162	158,660	162,153	697,030		
% Variance		100%	100%	84%	86%			



September 19, 2019

TO: Flood Control Zone 3 Advisory Committee
FROM: Jill Ogren, Public Works -Utilities Division Senior Engineer
SUBJECT: Zone 3 Contract Change Update

Recommendation

It is recommended that the Zone 3 Advisory Committee (AC) receive an update on the current status of the Zone 3 Contract Change discussions.

Discussion

Since 2017 the Zone 3 Technical Advisory Committee (TAC) has been evaluating potential changes to the existing Zone 3 Water Supply Contracts to allow for individual Zone 3 Agency year-over-year storage to provide the following benefits:

- To address unintended results of the LRRP after Zone 3 agencies lost water that had been stored in Lopez during the drought
- Provides enhanced ability for each agency to store water during future drought
- Improves flexibility of multi-year water resource planning
- Allows for enhanced conjunctive use or water supply portfolio management
- Provides incentive for agencies to preserve water in the reservoir

Background

The current contracts between the San Luis Obispo County Flood Control & Water Conservation District (District) were originally developed in the 1960s, updated in 2000 to incorporate provisions for the Lopez Dam Seismic Retrofit Project. In 2014/15, the District and Zone 3 Agencies developed, adopted and enacted the Low Reservoir Response Plan (LRRP), which included reductions in Municipal Diversions and Downstream Releases to preserve water in the Reservoir for a potential prolonged drought. Included in the LRRP were provisions to allow individual agencies to store water they had saved year-over-year to encourage conservation of Lopez Water and facilitate multi-year water resource planning.

However, upon exiting the LRRP in 2017, the Zone 3 Agencies lost access to stored Lopez Water that they saved while operating under the LRRP. TAC then began investigating potential modifications to the LRRP and ultimately, investigating potential changes to the existing Zone 3 Contracts to allow agencies to store water year-over-year at all reservoir levels and not just while operating within the LRRP.

Current Contracts

The current contracts manage Lopez Entitlements and Downstream Releases under the following structure:

- Undelivered downstream releases and undelivered municipal diversions become Surplus Water for the following year.
- Surplus Water is made available to Zone 3 Agencies based on Entitlement percentages regardless of which agencies created the surplus
- Zone 3 Agencies request desired amount of Surplus Water at the beginning of each water year
- All Agency Entitlement Water must be taken before Agency Surplus Water can be delivered
- Agencies have one year to use Surplus requested, if unused it returns to District supplies

Under this structure, there is limited incentive for agencies to preserve their Lopez supplies. Basically, if you do not use your water in a single year you lose it, this is characteristic of contracts developed in the 1950's and 60's which did not consider benefits multi-year water planning.

Potential Changes to Contracts

The TAC has been considering potential contract changes to allow them to store water year-over-year. Some of the potential changes related to agency storage under consideration are listed below:

- Establish storage rights for:
 - Entitlement and Surplus Water for each agency
 - Consider storage of other water (e.g. State Water, Nacimiento Water, etc.) through in-lieu exchanges
- Account for evaporation and spill losses of stored water
- Clarify delivery commitments and capacity limitations
- Address other contract language that should be updated or needs clarification

Reservoir Modeling

The District is utilizing the Reservoir Operations Model (Reservoir Model), previously developed by the Habitat Conservation Plan (HCP) sub-consultants to evaluate different operating scenarios and develop estimates of reservoir storage, downstream releases and municipal diversions under potential future conditions.

The initial scenario evaluated was a Baseline Scenario. The Baseline Scenario is a model that represents how Lopez Reservoir operates under the existing contracts and under current parameters. This model will then be used to compare against proposed Contract Amendment scenarios to evaluate potential impacts that contract changes may have on reservoir operations. The impact analysis will inform the CEQA evaluation phase of the proposed contract changes.

A Baseline Scenario was utilized instead of a comparison to historic operations because a number of Lopez Reservoir operating parameters have changed over the operating life of the reservoir, including:

- Changes in amount of water released downstream for Environmental and Agricultural uses
- Changes in the amount of water diverted for Municipal use
- Increased releases associated with Seismic Retrofit Project due to storage reduction requirements

The parameters included in the initial Baseline Scenario are shown in the table below.

Scenario Parameters	Baseline Operations (existing contract)
Hydrology	1969 – 2018
Downstream Releases	Average 2008 – 2018 (~3,700 AFY)
Municipal Demands	Entitlement Demands (Except for CSA 12)

Baseline Scenario Results

The storage estimates from the Baseline Scenario are shown in the graph below. The Baseline storage shows a consistent correlation with the historic storage from 1969 till 1996, however it starts to diverge after 1997. This is attributed to the increased downstream releases that occurred from 1998 to 2000 to lower the water level in the reservoir to meet the Division of Safety of Dams (DSOD) requirements for reduced storage. Reservoir levels were maintained at a lower level until the Seismic Retrofit Project was completed in 2002.

The historic storage in the reservoir does not catch back up to the Baseline Scenario storage estimates until 2017 when both the Baseline Scenario storage and the historic storage in Lopez reached the lowest levels observed/predicted.

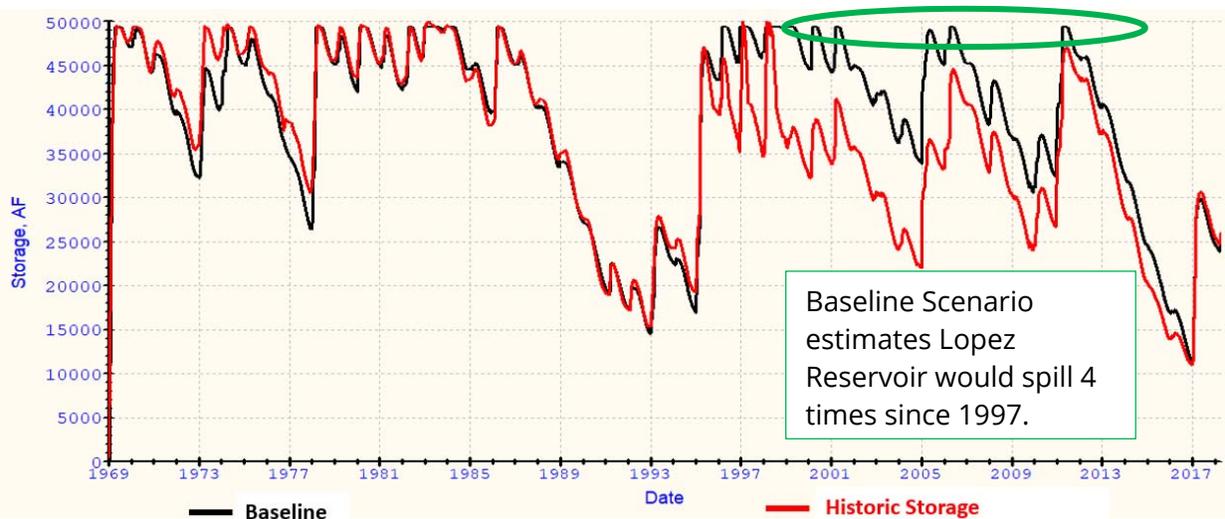


Figure 1. Baseline Scenario Storage Estimates

Another interesting finding from the Baseline Scenario is that the Reservoir may have spilled four times from 1997 to present if the increased releases associated with the Seismic Retrofit Project would not have occurred. The last time the Reservoir actually spilled was in 1997. The potential additional spill occurrences are highlighted in the graph.

Process Overview/Next Steps

The TAC developed the following outline of the process to develop and approve potential contract amendments:

- Conceptual Contract Amendments – Develop conceptual contract amendments
- Reservoir Modeling – Model current operations (Baseline) and proposed contract amendment scenarios
- Contract Modification – Develop updated contract language
- CEQA Evaluation – Perform environmental review of contract changes
- Contract Amendment Approval – Approve agreed upon contract changes, each Agency's governing board approves, then approval by the Board of Supervisors of the Flood Control District

The next steps in the Contract Change evaluation will be to model scenarios related to potential contract changes such as providing storage to each agency to see how the reservoir levels respond. Other scenarios that could be modeled are those associated with changes to the operating parameters of demand and downstream releases. Once these models are analyzed for impacts, the TAC may recommend proceeding to development of conceptual contract amendments, and preliminary CEQA evaluation of potential amendments. **County staff will return to obtain Advisory Committee approval of the TAC's recommendations, provide a funding plan for future efforts and a follow-up presentation.**

Financing

Modeling efforts to investigate potential contract changes have been rendered via the existing consultant contract with ECORP which was amended in 2017 to include the additional task of contract change modeling (~\$114,000). This task was funded from billings to the Zone 3 participating agencies. It is anticipated that additional modeling can be accommodated under the current contract. Staff efforts to date which include coordinating with TAC and consultant management is funded under operations and maintenance. Future efforts such as development of contract amendments and preliminary CEQA evaluation will require additional funding.



ZONE 3 Lopez Project

San Luis Obispo County Flood Control and Water Conservation District

TO: Zone 3 Advisory Committee
FROM: David Spiegel, PE
DATE: September 11, 2019
SUBJECT: Zone 3 Projects Update

Project Updates:

- Spillway Assessment (No Change)
 - DSOD is reviewing assessments on a priority basis and will update the District on their progress
 - Geotechnical and structural testing will be scheduled following DSOD approval of assessment and recommendations
- Lopez Dam and Terminal Dam Hazard Classification (No Change)
 - DSOD has approved the inundation maps
 - Approved maps are being submitted with the Emergency Action Plans to CAL OES
- Structural Assessment of Terminal Reservoir Dam (No Change)
 - The Consultant Yeh and Associates has been contracted to do the geotechnical work on the dam
 - The permit application has been submitted to DSOD
- Fault Zone Risk Assessment for Dam Left Abutment (No Change)
 - Received one quote at \$39,000.
- Lopez WTP Safety Upgrades (No Change)
 - Determining scope of membrane building safety upgrades
- Domestic and Fire Tank (No Change)
 - Domestic tank repairs to be completed first ~\$80k-\$100k
 - Options and costs for alternatives for Fire tank repairs is in preparation
- Lopez Leach Field Replacement (No Change)
 - Ormonde Backhoe Service, Inc. is contracted for the work
 - Building permit is approved
- Cathodic Protection Survey (No Change)
 - Initial site investigations and testing has been completed
 - Report is in progress



ZONE 3 Lopez Project

San Luis Obispo County Flood Control and Water Conservation District

- Equipment Storage Building (No Change)
 - Scoping new location
 - One quote received, ~\$69,000.00 for the building

Upcoming Projects:

- Ammonia Analyzer #2
- Improved Boat Access
- Remove Wall between Sludge Beds 3 and 4

Completed Projects

- Replaced sludge bed #1 underdrain system
- Rebuild membrane feed pump
- Existing Bypass Pipeline Condition Assessment
- Sludge Bed Cleanout Repair – 4 total
- Turnout SCADA Project
- Sludge Repair on Bed 4A
- Pressure Transducers
- Turnout Flow Meters
- Static Mixer
- Lopez WTP Safety Upgrades
 - Safety Railings and Catwalks installed



COUNTY OF SAN LUIS OBISPO
Department of Public Works
John Diodati, Interim Director

September 19, 2019

TO: Flood Control Zone 3 Advisory Committee

FROM: Ray Dienzo, Water Resources Engineer

SUBJECT: Cloud Seeding – Suspension Criteria and Request for Proposals Update

Recommendation

Review and comment on the suspension criteria for cloud seeding and receive update on Request for Proposals (RFP) for the Winter Cloud Seeding Program for the Lopez Lake Watershed.

Discussion

On August 13, 2019 the District Board of Supervisors approved the Winter Cloud Seeding Program for the Lopez Lake watershed (Project); and adopted the Mitigated Negative Declaration (MND) and related Mitigation Monitoring and Reporting Program (MMRP) pursuant to Section 21000 et seq. of the California Public Resources Code (CEQA). The Resolution to approve the MND and the MND are found in the following link:

<https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Projects/Winter-Cloud-Seeding-for-Lopez-Salinas/Approved-MND-and-Resolution.aspx>

District Staff developed the RFP including the Suspension Criteria (see attachment) for halting seeding activities. The Zone 3 TAC reviewed and commented on this Suspension Criteria at the TAC meeting on September 11, 2019. District Staff incorporated the comments and included them on the RFP that went out to bid on September 16, 2019. Also, with recommendation from the TAC, the RFP is soliciting a 3-year program starting this winter season with the following dates:

- Year 1 -12/15/2019 to 4/15/2019
- Year 2 -11/15/2020 to 4/15/2020
- Year 3 -11/15/2021 to 4/15/2022

Once the bids are received on September 30, 2019, staff will: review proposals, negotiate contracts, and present to the District Board of Supervisors for approval scheduled for December 10, 2019. The project start date is anticipated to be December 15, 2019.

Attachment: Suspension Criteria

SUSPENSION CRITERIA

Criteria in this category apply to the entire project area.

1. Whenever the National Weather Service (NWS) issues a severe storm, precipitation, flood warning or flash flood warning that affects any part of the project area, the project meteorologist shall suspend operations which may affect that part. Operations will be suspended at least for the period that the warning is in effect.
2. The Project Meteorologist or District personnel shall retain independent authority to suspend cloud seeding operations for any part, or all of the project area in the event that unforeseen conditions develop during storm events which in their best judgment have the potential to cause flooding or other adverse conditions anywhere within the project area.
3. Seeding operations shall not target the urbanized areas of the South County area – including but not limited to Arroyo Grande, Oceano, Grover Beach, Avila Beach, Pismo Beach, Nipomo.
4. If there are any burn scars from recent wildfires within the Lopez watershed or nearby watersheds that would cause severe runoff, seeding operations shall be immediately suspended.
5. Prior to and during each storm event, if any of the stream gauges within the District ALERT system are at the following full storm stage levels, seeding operations may be immediately suspended:

Valley Road Bridge	61.50 ft
22 nd Street Bridge	27.0 ft
Pier Ave	9.0 ft
Arroyo Grande Lagoon	10.2 ft
Meadow Creek	9.0 ft

6. Should it be predicted that Lopez Lake entirely fill and/or spill based on the District calculations or at or above 90% capacity, seeding operations will be suspended for the remainder of the season.
7. If the District is notified of impacts to agricultural harvest conditions within the Lopez watershed or the areas near Arroyo Grande Creek, seeding operations may be halted

Note: All suspension criteria are subject to revision should hydrologic conditions warrant it. All revisions must be documented in writing and be approved by District representatives with notification provided to the project meteorologist.