REGULAR MEETING OF CACHUMA OPERATION AND MAINTENANCE BOARD held at 3301 Laurel Canyon Road Santa Barbara, CA 93105

Monday, September 24, 2018

2:00 PM

AGENDA

1. CALL TO ORDER, ROLL CALL

- **2. PUBLIC COMMENT** (*Public may address the Board on any subject matter not on the agenda and within the Board's jurisdiction. See "Notice to the Public" below. Please make your comments from the podium once acknowledged by the President of the Board.)*
- **3.** <u>CONSENT AGENDA</u> (All items on the Consent Agenda are considered to be routine and will be approved or rejected in a single motion. Any item placed on the Consent Agenda may be removed and placed on the Regular Agenda for discussion and possible action upon the request of any Board Member.)

Action: Recommend Approval of Consent Agenda by motion and roll call vote of the Board:

- a. Minutes of August 27, 2018 Regular Board Meeting
- b. Investment of Funds
 - Financial Reports
 - Investment Reports
- c. Review of Paid Claims

4. <u>VERBAL REPORTS FROM BOARD COMMITTEES</u>

Receive verbal information regarding the following committee meetings:

• Operations Committee Meeting – September 17, 2018

5. <u>RESOLUTION NO. 673 – LAKE CACHUMA WATER QUALITY AND SEDIMENT</u> <u>MANAGEMENT STUDY</u>

Action: Recommend approval by motion and roll call vote of the Board

6. <u>GENERAL MANAGER REPORT</u>

<u>Receive information from the General Manager on topics pertaining to COMB, including but not limited to the following:</u>

- Meetings
- Administration
- Personnel
- Operations/Engineer Activities
- Fisheries Division Activities

7. WATER RESOURCES ENGINEER REPORT

Receive information from the Water Resources Engineer, including but not limited to the following:

• Forecasted Lake Elevations

- Climate Conditions
- Grant Funding Activities
- Infrastructure Improvement Project Status

8. <u>OPERATIONS DIVISION REPORT</u>

Receive information regarding Operations Division, including but not limited to the following:

- Lake Cachuma Operations
- Operation and Maintenance Activities

9. FISHERIES DIVISION REPORT

Receive information regarding Fisheries Division, including but not limited to the following:

- LSYR Steelhead Monitoring Elements
- Tributary Project Updates
- Surcharge Water Accounting
- Reporting/Outreach/Training

10. <u>UPDATE ON FISH PASSAGE IMPROVEMENT PROJECTS</u>

Receive information regarding the status of the Fish Passage Improvement Projects

- a. Quiota Creek Crossing 5
- b. Quiota Creek Crossing 9

11. PROGRESS REPORT ON LAKE CACHUMA OAK TREE PROGRAM

Receive information regarding the Lake Cachuma Oak Tree Program including but not limited to the following:

• Maintenance and Monitoring

12. MONTHLY CACHUMA PROJECT REPORTS

Receive information regarding the Cachuma Project, including but not limited to the following:

- a. Cachuma Water Reports
- b. Cachuma Reservoir Current Conditions
- c. Lake Cachuma Quagga Survey

13. DIRECTORS' DISCUSSION OF REGULAR BOARD MEETING START TIME

Action: Recommend approval by motion and roll call vote of the Board

14. DIRECTORS' REQUESTS FOR AGENDA ITEMS FOR FUTURE MEETING

15. [CLOSED SESSION]: CONFERENCE WITH LEGAL COUNSEL: EXISTING AND POTENTIAL LITIGATION

a. [Government Code Section 54956.9(d)(4)] Name of matter: Status of Protest of Agency re: Payment of Quarterly Assessments

16. RECONVENE INTO OPEN SESSION

[Government Code Section 54957.7] Disclosure of actions taken in closed session, as applicable [Government Code Section 54957.1]

17. MEETING SCHEDULE

- October 22, 2018 at 2:00 PM, COMB Office (pending possible change of time resulting from Item #13, director discussion)
- Board Packages available on COMB website <u>www.cachuma-board.org</u>

18. COMB ADJOURNMENT

NOTICE TO PUBLIC

Posting of Agenda: This agenda was posted at COMB's offices, located at 3301 Laurel Canyon Road, Santa Barbara, California, 93105 and on COMB's website, in accordance with Government Code Section 54954.2. The agenda contains a brief general description of each item to be considered by the Governing Board. The Board reserves the right to modify the order in which agenda items are heard. Copies of staff reports or other written documents relating to each item of business are on file at the COMB offices and are available for public inspection during normal business hours. A person with a question concerning any of the agenda items may call COMB's General Manager at (805) 687-4011.

Written materials: In accordance with Government Code Section 54957.5, written materials relating to an item on this agenda which are distributed to the Governing Board less than 72 hours (for a regular meeting) or 24 hours (for a special meeting) will be made available for public inspection at the COMB offices during normal business hours. The written materials may also be posted on COMB's website subject to staff's ability to post the documents before the scheduled meeting.

Public Comment: Any member of the public may address the Board on any subject within the jurisdiction of the Board that is not scheduled for as an agenda item before the Board. The total time for this item will be limited by the President of the Board. The Board is not responsible for the content or accuracy of statements made by members of the public. No action will be taken by the Board on any Public Comment item.

Americans with Disabilities Act: In compliance with the Americans with Disabilities Act, if you need special assistance to review agenda materials or participate in this meeting, please contact the Cachuma Operation and Maintenance Board office at (805) 687-4011 at least 48 hours prior to the meeting to enable the Board to make reasonable arrangements.

Note: If you challenge in court any of the Board's decisions related to the listed agenda items you may be limited to raising only those issues you or someone else raised at any public hearing described in this notice or in written correspondence to the Governing Board prior to the public hearing.

MINUTES OF A REGULAR MEETING of the CACHUMA OPERATION AND MAINTENANCE BOARD

held at

3301 Laurel Canyon Road, Santa Barbara, CA Monday, August 27, 2018

1. Call to Order, Roll Call

The meeting was called to order at 2:02 PM by President Morgan who chaired the meeting. Those in attendance were:

Directors Present:

W. Douglas Morgan, Montecito Water District Kristen Sneddon, City of Santa Barbara Polly Holcombe, Carpinteria Valley Water District Lauren Hanson, Goleta Water District

Staff Present:

Janet Gingras, General Manager Edward Lyons, Administrative Manager/CFO David Flora, Water Service Worker III Tim Robinson, Fisheries Division Manager Joel Degner, Water Resources Engineer	Elijah Papen, Program Analyst William Carter, General Counsel Adriane Passani, Administrative Assistant III Dorothy Turner, Administrative Assistant
<u>Others Present</u> : Fray Crease, SB County Water Agency Kelley Dyer, City of Santa Barbara	Philip Walker, Santa Barbara resident

2. Introduction of New Staff

Ms. Gingras introduced and welcomed new staff members Dorothy Turner, Administrative Assistant and Elijah Papen, Program Analyst.

3. Public Comment

Mr. Walker spoke about the Environmental Impact Report for the 1994 proposed Bradbury Dam enlargement. He also commented on the downstream water releases.

4. Consent Agenda

- a. Minutes of July 23, 2018 Regular Board Meeting
- b. Investment of Funds

Cachuma Operation & Maintenance Board Regular Meeting of the Board of Directors August 27, 2018

- Financial Reports
- Investment Reports
- c. Review of Paid Claims

Ms. Gingras presented the Consent Agenda as provided in the Board packet. Director Holcombe made a motion to approve the Consent Agenda as presented; seconded by Director Hanson, the motion passed by 6/0/1/0 vote.

Ayes: Sneddon, Holcombe, Hanson, Morgan Nayes: Absent: Walsh Abstain:

5. Verbal Reports From Board Committees

- Lake Cachuma Oak Tree Committee Meeting August 1, 2018: Director Sneddon presented the Oak Tree Committee items and reported that the Oak Tree Program is progressing well and continues as planned. The Oak Tree tour is being planned. No date had been set as of the date of the meeting.
- *Public Outreach Committee Meeting August 9, 2018:* Director Hanson presented the Public Outreach Committee items, noting that the new website had been presented to the committee and the committee's questions had been addressed in the staff report to the Board under Item 8.

6. Change to Board Committee Appointments for Fiscal Year 2018-2019

Ms. Gingras presented the staff memorandum as provided in the board packet. President Morgan modified the Administrative committee assignment and replaced Director Sneddon with Director Hanson, as requested and agreed.

7. Financial Review – 4th Quarter Fiscal Year 2017-18

Mr. Lyons presented the 4th Quarter Fiscal Year 2017-18 financial review, highlighting revenues and expenditures pertaining to the 4th quarter. Mr. Lyons fielded questions from the Board. Director Morgan requested that staff explore other options for investment of funds. Director Hanson requested additional narrative in future reports regarding timing differences between actual expenditures and the annual budget for non-recurring items.

8. Presentation of New Website Platform

Mr. Lyons presented the new Streamline website platform, highlighting various features of the new platform including compliance, transparency, reliability and ease of use. Mr. Lyons fielded questions from the Board.

Cachuma Operation & Maintenance Board Regular Meeting of the Board of Directors August 27, 2018

9. General Manager Report

- Meetings
- Administration
- Operations / Engineer Activities
- Fisheries Division Activities

Ms. Gingras highlighted topics within her report, including information on the Bureau of Reclamation's Cachuma Project water rate methodology in its proposal to recapture deficits and extraordinary costs associated with the Project. Ms. Gingras presented the Board with updates on the status of the IRWM Plan, Administrative work, Operations and Fisheries Division projects, as provided in her General Manager Report. She fielded questions from the Board.

10. Water Resources Engineer Report

- Climate Conditions
- Lake Cachuma Evaporation Update
- Grant Funding Activities
- Infrastructure Improvement Planning

Mr. Degner presented the monthly Water Resources Engineer Report as provided in the Board packet. Mr. Degner presented a slide show summarizing the ESRI Conference presentation. He highlighted the ability to locate the conduit accurately using the GIS software. Further, Mr. Degner provided updates on the Operations Division projects and fielded questions from the Board.

11. **Operations Division Report**

- Lake Cachuma Operations
- Operation and Maintenance Activities

Mr. Flora presented the report on behalf of Operations Division Manager, Mr. Stewart. He provided updates on the SCE Shutdown Plan, the USBR on-site review, status of active projects, and ongoing daily monitoring and repairs. Mr. Flora fielded questions from the Board.

12. Update on Fish Passage Improvement Project – Quiota Creek Crossing 5

Mr. Robinson presented topics within the report as provided in the Board packet summarizing the progress of the Quiota Creek Crossing 5 fish passage improvement projects. Mr. Robinson fielded questions from the Board.

13. Fisheries Division Report

- LSYR Steelhead Monitoring Elements
- Tributary Project Updates

- Surcharge Water Accounting
- Reporting/Outreach/Training

Mr. Robinson presented topics within the report as provided in the Board packet, highlighting the Hilton Creek watering system and releases being made in conjunction with the current downstream water rights releases. He updated the Board on the status of the ongoing fisheries projects, outreach and training programs.

14. Progress Report on Lake Cachuma Oak Tree Program

• Maintenance and Monitoring

Mr. Robinson presented topics within his report as provided in the Board packet highlighting staff's ongoing mitigation efforts for the Oak Tree Program. There were no questions from the Board.

15. Monthly Cachuma Project Reports

- Cachuma Water Reports
- Cachuma Reservoir Current Conditions
- Lake Cachuma Quagga Survey

Ms. Gingras reviewed the monthly water reports as incorporated in the Board packet. In reviewing the Cachuma Daily Operations report, she reported that the data in the releases section, column termed WR89-18, is inaccurate. Corrected data will be provided to the Board when received.

16. Directors' Request for Agenda Items for Future Meeting

- Request from Director Hanson that Board packets be delivered on the Wednesday prior to the Board meeting to allow for water district staff review prior to the meeting.
- Request from Director Sneddon that a future agenda include an item for member discussion of a potential earlier start time for the regular board meetings.

17. [CLOSED SESSION]: Conference with Legal Counsel: Existing and Potential Litigation

The Board went into closed session at 4:50 PM.

a. [Government Code Section 54956.9(d)(4)] Name of matter: Protest of Member Agency re: Payment of Quarterly Assessments

18. **RECONVENE INTO OPEN SESSION**

[Government Code Section 54957.7] Disclosure of actions taken in closed session, as applicable [Government Code Section 54957.1] The Board came out of closed session at 5:16 PM.

Item #17a – There was no reportable action.

19. Meeting Schedule

- September 24, 2018 at 2:00 PM, COMB Office
- Board Packages available on COMB website <u>www.cachuma-board.org</u>

20. COMB Adjournment

There being no further business, the meeting adjourned at 5:17 PM.

Respectfully submitted,

Janet Gingras, Secretary of the Board

APPROVED:

Approved✓Unapproved

W. Douglas Morgan, President of the Board

Cachuma Operation & Maintenance Board Statement of Net Position As of August 31, 2018 UNAUDITED FINANCIALS

ASSETS

ASSETS		
Current Assets		
Checking/Savings		
Trust Funds		
1210 · Warren Act Trust Fund	909,054.72	
1220 · Renewal Fund	10,215.61	
Total Trust Funds		919,270.33
1050 · General Fund		646,536.27
1100 · Revolving Fund		255,264.41
Total Checking/Savings		1,821,071.01
Accounts Receivable		
1301 · Accounts Receivable		15,440.00
1320 · Quarterly Assessments Receivable		505,608.00
Total Accounts Receivable		521,048.00
Other Current Assets		
1010 · Petty Cash		500.00
1200 · LAIF		1,793,774.22
1303 · Bradbury SOD Act Assessments Receivable		195,566.00
1304 · Lauro Dam SOD Assessments Receivable		30,258.63
1400 · Prepaid Insurance		19,555.72
Total Other Current Assets		2,039,654.57
Total Current Assets		4,381,773.58
Fixed Assets		
1500 · Vehicles		445,723.91
1505 · Office Furniture & Equipment		443,923.41
1510 · Mobile Offices		97,803.34
1515 · Field Equipment		594,001.22
1525 · Paving		38,351.00
1550 · Accumulated Depreciation		-1,462,883.66
Total Fixed Assets		156,919.22
Other Assets		
1910 · Long Term Bradbury SOD Act Assessments Receivable		4,680,154.07
1920 · Long Term Lauro SOD Act Assessments Receivable		835,169.28
1922 · Deferred Outflow of Resources (GASB 68)		422,161.00
Total Other Assets		5,937,484.35
TOTAL ASSETS		10,476,177.15

Cachuma Operation & Maintenance Board Statement of Net Position As of August 31, 2018 UNAUDITED FINANCIALS

LIABILITIES & NET POSITION

Liabilities	
Current Liabilities	
Accounts Payable	
2200 · Accounts Payable	93,642.23
Total Accounts Payable	93,642.23
Other Current Liabilities	
2550 · Vacation/Sick	150,085.16
2561 · Bradbury Dam SOD Act	195,576.66
2563 · Laura Dam SOD Act	30,258.63
2565 · Accrued Interest SOD Act	62,424.00
2567 · Loan Payable Current EPFP	418,020.44
2590 · Deferred Revenue	919,270.33
Total Other Current Liabilities	1,775,635.22
Total Current Liabilities	1,869,277.45
Long Term Liabilities	
2602 · Long Term SOD Act Liability-Bradbury	4,680,144.07
2603 · Long Term SOD Act Liability - Lauro	835,169.28
2604 · OPEB Long Term Liability	1,054,948.00
2605 · Loan Payable Principal - EPFP	853,103.32
2610 · Net Pension Liability (GASB 68)	1,527,915.00
2611 · Deferred Inflow of Resources (GASB 68)	149,427.00
Total Long Term Liabilities	9,100,706.67
Total Liabilities	10,969,984.12
Net Position	
3000 · Opening Balance Net Position	-1,356,592.05
3901 · Retained Net Assets	388,491.17
Net Position	474,293.91
Total Net Position	-493,806.97
TOTAL LIABILITIES & NET POSITION	10,476,177.15

Cachuma Operation & Maintenance Board Statement of Revenues and Expenditures Budget vs. Actuals July 2018 - Jun 2019

	Fisheries			Operations			TOTAL					
	Jul - Aug 18	Budget	\$ Over Budget	% of Budget	Jul - Aug 18	Budget	\$ Over Budget	% of Budget	Jul - Aug 18	Budget	\$ Over Budget	% of Budget
Revenue												
3000 REVENUE												
3039 · Grant-QC Crossing #9	0.00	993,121.00	-993,121.00	0.0%	0.00				0.00	993,121.00	-993,121.00	0.0%
3001 · O&M Budget (Qtrly Assessments)	236,627.00	946,511.00	-709,884.00	25.0%	891,449.00	3,565,791.00	-2,674,342.00	25.0%	1,128,076.00	4,512,302.00	-3,384,226.00	25.0%
3006 · Warren Act	0.00	539,521.00	-539,521.00	0.0%	0.00				0.00	539,521.00	-539,521.00	0.0%
3035 · Cachuma Project Betterment Fund	0.00	90,000.00	-90,000.00	0.0%	0.00				0.00	90,000.00	-90,000.00	0.0%
3037 · Grant-QC Crossing #5	0.00	893,287.00	-893,287.00	0.0%	0.00				0.00	893,287.00	-893,287.00	0.0%
Total 3000 REVENUE	236,627.00	3,462,440.00	-3,225,813.00	6.83%	891,449.00	3,565,791.00	-2,674,342.00	25.0%	1,128,076.00	7,028,231.00	-5,900,155.00	16.05%
Total Revenue	236,627.00	3,462,440.00	-3,225,813.00	6.83%	891,449.00	3,565,791.00	-2,674,342.00	25.0%	1,128,076.00	7,028,231.00	-5,900,155.00	16.05%
Gross Profit	236,627.00	3,462,440.00	-3,225,813.00	6.83%	891,449.00	3,565,791.00	-2,674,342.00	25.0%	1,128,076.00	7,028,231.00	-5,900,155.00	16.05%
Expense												
3100 · LABOR - OPERATIONS	0.00				92,445.97	813,247.00	-720,801.03	11.37%	92,445.97	813,247.00	-720,801.03	11.37%
3200 VEH & EQUIPMENT												
3201 · Vehicle/Equip Mtce	0.00				8,898.25	30,000.00	-21,101.75	29.66%	8,898.25	30,000.00	-21,101.75	29.66%
3202 · Fixed Capital	0.00				0.00	30,000.00	-30,000.00	0.0%	0.00	30,000.00	-30,000.00	0.0%
3203 · Equipment Rental	0.00				0.00	5,000.00	-5,000.00	0.0%	0.00	5,000.00	-5,000.00	0.0%
3204 · Miscellaneous	0.00				139.25	5,000.00	-4,860.75	2.79%	139.25	5,000.00	-4,860.75	2.79%
Total 3200 VEH & EQUIPMENT	0.00				9,037.50	70,000.00	-60,962.50	12.91%	9,037.50	70,000.00	-60,962.50	12.91%
3300 · CONTRACT LABOR												
3301 · Conduit, Meter, Valve & Misc	0.00				1,649.88	20,000.00	-18,350.12	8.25%	1,649.88	20,000.00	-18,350.12	8.25%
3302 · Buildings & Roads	0.00				275.00	20,000.00	-19,725.00	1.38%	275.00	20,000.00	-19,725.00	1.38%
3303 · Reservoirs	0.00				0.00	30,000.00	-30,000.00	0.0%	0.00	30,000.00	-30,000.00	0.0%
3304 · Engineering, Misc Services	0.00				0.00	25,000.00	-25,000.00	0.0%	0.00	25,000.00	-25,000.00	0.0%
Total 3300 · CONTRACT LABOR	0.00				1,924.88	95,000.00	-93,075.12	2.03%	1,924.88	95,000.00	-93,075.12	2.03%
3400 · MATERIALS & SUPPLIES	0.00					c= 000 00	ca and an			CE 000 00	ca aaa a a	
3401 · Conduit, Meter, Valve & Misc	0.00				2,760.73	65,000.00	-62,239.27	4.25%	2,760.73	65,000.00	-62,239.27	4.25%
3402 · Buildings & Roads	0.00				603.68	8,000.00	-7,396.32	7.55%	603.68	8,000.00	-7,396.32	7.55%
3403 · Reservoirs	0.00				186.16	5,000.00	-4,813.84	3.72%	186.16	5,000.00	-4,813.84	3.72%
Total 3400 · MATERIALS & SUPPLIES	0.00				3,550.57	78,000.00	-74,449.43	4.55%	3,550.57	78,000.00	-74,449.43	4.55%
3500 · OTHER EXPENSES 3501 · Utilities	0.00				991.00	7 000 00	-6,009.00	14 160/	991.00	7,000.00	-6,009.00	14 169/
3502 · Uniforms	0.00				991.00 175.00	7,000.00 5,000.00	-6,009.00	14.16% 3.5%	175.00	5,000.00	-6,009.00	14.16% 3.5%
3503 · Communications	0.00				2,961.67	18,500.00	-4,825.00	3.5% 16.01%	2,961.67	18,500.00	-4,825.00	3.5% 16.01%
3504 · USA & Other Services	0.00				2,901.07	4,000.00	-3,744.15	6.4%	2,901.07	4,000.00	-3,744.15	6.4%
3505 · Miscellaneous	0.00				1,755.99	4,000.00	-6,244.01	21.95%	1,755.99	4,000.00 8,000.00	-6,244.01	21.95%
3506 · Training	0.00				1,755.55	3,000.00	-2,882.45	3.92%	1,755.99	3,000.00	-2,882.45	3.92%
Total 3500 · OTHER EXPENSES	0.00				6,257.06	45,500.00	-39,242.94	13.75%	6,257.06	45,500.00	-39,242.94	13.75%
4100 · LABOR - FISHERIES	97,634.77	692,409.00	-594,774.23	14.1%	0.00	43,300.00	-33,242.34	13.7570	97,634.77	692,409.00	-594,774.23	14.1%
4200 · VEHICLES & EQUIP - FISHERIES	57,054.77	052,405.00	-554,774.25	14.170	0.00				57,054.77	052,405.00	-554,774.25	14.170
4270 · Vehicle/Equip Mtce	4,169.91	15,000.00	-10,830.09	27.8%	0.00				4,169.91	15,000.00	-10,830.09	27.8%
4280 · Fixed Capital	4,105.51	15,000.00	-15,000.00	0.0%	0.00				0.00	15,000.00	-15,000.00	0.0%
4290 · Miscellaneous	45.87	2,500.00	-2,454.13	1.84%	0.00				45.87	2,500.00	-2,454.13	1.84%
Total 4200 · VEHICLES & EQUIP - FISHERIES	4,215.78	32,500.00	-28,284.22	12.97%					4,215.78	32,500.00	-28,284.22	12.97%
Total 4200 VEHICLES & LQUIF - FISHERIES	4,213.70	52,500.00	-20,204.22	12.3770	0.00				7,213.70	52,500.00	-20,204.22	12.31/0

Cachuma Operation & Maintenance Board Statement of Revenues and Expenditures Budget vs. Actuals July 2018 - Jun 2019

	Fisheries				Operations			TOTAL				
	Jul - Aug 18	Budget	\$ Over Budget	% of Budget	Jul - Aug 18	Budget	\$ Over Budget	% of Budget	Jul - Aug 18	Budget	\$ Over Budget	% of Budget
4220 · CONTRACT LABOR - FISHERIES												
4221 · Meters & Valves	0.00	3,000.00	-3,000.00	0.0%	0.00				0.00	3,000.00	-3,000.00	0.0%
4222 · Fish Projects Maintenance	186.97	25,000.00	-24,813.03	0.75%	0.00				186.97	25,000.00	-24,813.03	0.75%
Total 4220 · CONTRACT LABOR - FISHERIES	186.97	28,000.00	-27,813.03	0.67%	0.00				186.97	28,000.00	-27,813.03	0.67%
4300 · MATERIALS/SUPPLIES - FISHERIES												
4390 · Miscellaneous	2,201.17	7,000.00	-4,798.83	31.45%	0.00				2,201.17	7,000.00	-4,798.83	31.45%
Total 4300 · MATERIALS/SUPPLIES - FISHERI	2,201.17	7,000.00	-4,798.83	31.45%	0.00				2,201.17	7,000.00	-4,798.83	31.45%
4500 · OTHER EXPENSES - FISHERIES												
4502 · Uniforms	0.00	3,500.00	-3,500.00	0.0%	0.00				0.00	3,500.00	-3,500.00	0.0%
Total 4500 · OTHER EXPENSES - FISHERIES	0.00	3,500.00	-3,500.00	0.0%	0.00				0.00	3,500.00	-3,500.00	0.0%
4999 · GENERAL & ADMINISTRATIVE												
5000 · Director Fees	0.00				1,238.90	12,000.00	-10,761.10	10.32%	1,238.90	12,000.00	-10,761.10	10.32%
5001 · Director Mileage	0.00				70.76	1,000.00	-929.24	7.08%	70.76	1,000.00	-929.24	7.08%
5100 · Legal	0.00				20,412.50	75,000.00	-54,587.50	27.22%	20,412.50	75,000.00	-54,587.50	27.22%
5101 · Audit	0.00				0.00	22,750.00	-22,750.00	0.0%	0.00	22,750.00	-22,750.00	0.0%
5150 · Unemployment Tax	0.00				0.00	5,000.00	-5,000.00	0.0%	0.00	5,000.00	-5,000.00	0.0%
5200 · Liability Insurance	0.00				0.00	50,551.00	-50,551.00	0.0%	0.00	50,551.00	-50,551.00	0.0%
5310 · Postage/Office Exp	0.00				792.44	5,000.00	-4,207.56	15.85%	792.44	5,000.00	-4,207.56	15.85%
5311 · Office Equip/Leases	0.00				1,023.59	9,200.00	-8,176.41	11.13%	1,023.59	9,200.00	-8,176.41	11.13%
5312 · Misc Admin Expenses	0.00				1,567.97	11,500.00	-9,932.03	13.64%	1,567.97	11,500.00	-9,932.03	13.64%
5313 · Communications	0.00				1,243.94	8,500.00	-7,256.06	14.64%	1,243.94	8,500.00	-7,256.06	14.64%
5314 · Utilities	0.00				2,013.60	9,737.00	-7,723.40	20.68%	2,013.60	9,737.00	-7,723.40	20.68%
5315 · Membership Dues	0.00				135.85	9,345.00	-9,209.15	1.45%	135.85	9,345.00	-9,209.15	1.45%
5316 · Admin Fixed Assets	0.00				894.38	3,000.00	-2,105.62	29.81%	894.38	3,000.00	-2,105.62	29.81%
5318 · Computer Consultant	0.00				2,809.64	15,000.00	-12,190.36	18.73%	2,809.64	15,000.00	-12,190.36	18.73%
5325 · Emp Training/Subscriptions	0.00				0.00	2,000.00	-2,000.00	0.0%	0.00	2,000.00	-2,000.00	0.0%
5330 · Admin Travel/Conferences	0.00				0.00	2,000.00	-2,000.00	0.0%	0.00	2,000.00	-2,000.00	0.0%
5331 · Public Information	0.00				0.00	3,500.00	-3,500.00	0.0%	0.00	3,500.00	-3,500.00	0.0%
5317 · Admin Contract Labor	0.00				9,231.91	9,680.00	-448.09	95.37%	9,231.91	9,680.00	-448.09	95.37%
Total 4999 · GENERAL & ADMINISTRATIVE	0.00				41,435.48	254,763.00	-213,327.52	16.26%	41,435.48	254,763.00	-213,327.52	16.26%
5299 · ADMIN LABOR	0.00				83,262.13	587,881.00	-504,618.87	14.16%	83,262.13	587,881.00	-504,618.87	14.16%
5400 · GENERAL & ADMIN - FISHERIES												
5407 · Legal - FD	632.50	20,000.00	-19,367.50	3.16%	0.00				632.50	20,000.00	-19,367.50	3.16%
5410 · Postage / Office Supplies	432.43	4,000.00	-3,567.57	10.81%	0.00				432.43	4,000.00	-3,567.57	10.81%
5411 · Office Equipment / Leases	551.15	5,418.00	-4,866.85	10.17%	0.00				551.15	5,418.00	-4,866.85	10.17%
5412 · Misc. Admin Expense	844.29	7,500.00	-6,655.71	11.26%	0.00				844.29	7,500.00	-6,655.71	11.26%
5413 · Communications	775.66	5,805.00	-5,029.34	13.36%	0.00				775.66	5,805.00	-5,029.34	13.36%
5414 · Utilities	1,084.26	5,243.00	-4,158.74	20.68%	0.00				1,084.26	5,243.00	-4,158.74	20.68%
5415 · Membership Dues	73.15	5,955.00	-5,881.85	1.23%	0.00				73.15	5,955.00	-5,881.85	1.23%
5416 · Admin Fixed Assets	481.59	3,000.00	-2,518.41	16.05%	0.00				481.59	3,000.00	-2,518.41	16.05%
5417 · Admin Contract Labor	4,971.04	5,020.00	-48.96	99.03%	0.00				4,971.04	5,020.00	-48.96	99.03%
5418 · Computer Consultant	1,512.86	7,000.00	-5,487.14	21.61%	0.00				1,512.86	7,000.00	-5,487.14	21.61%
5425 · Employee Education/Subscription	695.00	2,500.00	-1,805.00	27.8%	0.00				695.00	2,500.00	-1,805.00	27.8%
5426 · Director Fees	667.10	6,500.00	-5,832.90	10.26%	0.00				667.10	6,500.00	-5,832.90	10.26%

Cachuma Operation & Maintenance Board Statement of Revenues and Expenditures Budget vs. Actuals July 2018 - Jun 2019

	Fisheries			Operations			TOTAL					
	Jul - Aug 18	Budget	\$ Over Budget	% of Budget	Jul - Aug 18	Budget	\$ Over Budget	% of Budget	Jul - Aug 18	Budget	\$ Over Budget	% of Budget
5427 · Director Mileage	38.11	500.00	-461.89	7.62%	0.00				38.11	500.00	-461.89	7.62%
5430 · Travel	1,240.05	2,500.00	-1,259.95	49.6%	0.00				1,240.05	2,500.00	-1,259.95	49.6%
5431 · Public Information	0.00	1,500.00	-1,500.00	0.0%	0.00				0.00	1,500.00	-1,500.00	0.0%
5441 · Audit	0.00	12,250.00	-12,250.00	0.0%	0.00				0.00	12,250.00	-12,250.00	0.0%
5443 · Liab & Property Ins	0.00	24,745.00	-24,745.00	0.0%	0.00				0.00	24,745.00	-24,745.00	0.0%
Total 5400 · GENERAL & ADMIN - FISHERIES	13,999.19	119,436.00	-105,436.81	11.72%	0.00				13,999.19	119,436.00	-105,436.81	11.72%
5499 · ADMIN LABOR-FISHERIES	31,240.48	229,599.00	-198,358.52	13.61%	0.00				31,240.48	229,599.00	-198,358.52	13.61%
5510 · Integrated Reg. Water Mgt Plan	0.00				0.00	5,000.00	-5,000.00	0.0%	0.00	5,000.00	-5,000.00	0.0%
6000 · SPECIAL PROJECTS												
6062 · SCADA	0.00				373.75	20,000.00	-19,626.25	1.87%	373.75	20,000.00	-19,626.25	1.87%
6090 · COMB Office Building	0.00				0.00	200,000.00	-200,000.00	0.0%	0.00	200,000.00	-200,000.00	0.0%
6096 · SCC Structure Rehabilitation	0.00				0.00	484,400.00	-484,400.00	0.0%	0.00	484,400.00	-484,400.00	0.0%
6096-2 · SCC Str Rehab Thomas DebrisFlow	0.00				15,690.82				15,690.82	0.00	15,690.82	100.0%
6097 · GIS and Mapping	0.00				0.00	10,000.00	-10,000.00	0.0%	0.00	10,000.00	-10,000.00	0.0%
6105 · ROW Management Program	0.00				0.00	20,000.00	-20,000.00	0.0%	0.00	20,000.00	-20,000.00	0.0%
6118 · Repair Lateral 3 Structure	0.00				0.00	100,000.00	-100,000.00	0.0%	0.00	100,000.00	-100,000.00	0.0%
6120 · Emergency Pumping Fac Project	0.00				11,666.67	230,000.00	-218,333.33	5.07%	11,666.67	230,000.00	-218,333.33	5.07%
6122 · Rehab San Antonio Crk Blow-off	0.00				0.00	60,000.00	-60,000.00	0.0%	0.00	60,000.00	-60,000.00	0.0%
6132 · Sycamore Canyon Slope Stabiliz	0.00				5,071.62	500,000.00	-494,928.38	1.01%	5,071.62	500,000.00	-494,928.38	1.01%
6132-1 · SycCynSlopeStab-CO Funds FY2017	0.00				0.00	-500,000.00	500,000.00	0.0%	0.00	-500,000.00	500,000.00	0.0%
6136 · SCC Isolation Valve Evaluation	0.00				0.00	25,000.00	-25,000.00	0.0%	0.00	25,000.00	-25,000.00	0.0%
6137 · SCC Lower Reach Lateral Structu	0.00				0.00	50,000.00	-50,000.00	0.0%	0.00	50,000.00	-50,000.00	0.0%
6138 · Cachuma Watershed Mgmt Study	0.00				0.00	417,000.00	-417,000.00	0.0%	0.00	417,000.00	-417,000.00	0.0%
Total 6000 · SPECIAL PROJECTS	0.00				32,802.86	1,616,400.00	-1,583,597.14	2.03%	32,802.86	1,616,400.00	-1,583,597.14	2.03%
6200 · FISHERIES ACTIVITIES												
6201 · FMP Implementation	0.00	45,000.00	-45,000.00	0.0%	0.00				0.00	45,000.00	-45,000.00	0.0%
6202 · GIS and Mapping	0.00	10,000.00	-10,000.00	0.0%	0.00				0.00	10,000.00	-10,000.00	0.0%
6203 · Grants Technical Support	0.00	10,000.00	-10,000.00	0.0%	0.00				0.00	10,000.00	-10,000.00	0.0%
6204 · SYR Hydrology Technical Support	0.00	6,000.00	-6,000.00	0.0%	0.00				0.00	6,000.00	-6,000.00	0.0%
6205 · USGS Stream Gauge Program	7,813.18	100,000.00	-92,186.82	7.81%	0.00				7,813.18	100,000.00	-92,186.82	7.81%
6206 · Tri County Fish Team Funding	0.00	5,000.00	-5,000.00	0.0%	0.00				0.00	5,000.00	-5,000.00	0.0%
6207 · Oak Tree Restoration Program	1,032.99	40,000.00	-38,967.01	2.58%	0.00				1,032.99	40,000.00	-38,967.01	2.58%
Total 6200 · FISHERIES ACTIVITIES	8,846.17	216,000.00	-207,153.83	4.1%	0.00				8,846.17	216,000.00	-207,153.83	4.1%
6300 · HABITAT ENHANCEMENT												
6303 · Tributary Projects Support	0.00	20,000.00	-20,000.00	0.0%	0.00				0.00	20,000.00	-20,000.00	0.0%
6315 · Quiota Creek Crossing 8	0.00	30,000.00	-30,000.00	0.0%	0.00				0.00	30,000.00	-30,000.00	0.0%
6316 · Quiota Creek Crossing 5	179,975.69	960,000.00	-780,024.31	18.75%	0.00				179,975.69	960,000.00	-780,024.31	18.75%
6317 · Salsipuedes Fish Ladder Repair	0.00	8,000.00	-8,000.00	0.0%	0.00				0.00	8,000.00	-8,000.00	0.0%
6318 · Quiota Creek Crossing 9	36,363.62	1,115,996.00	-1,079,632.38	3.26%	0.00				36,363.62	1,115,996.00	-1,079,632.38	3.26%
Total 6300 · HABITAT ENHANCEMENT	216,339.31	2,133,996.00	-1,917,656.69	10.14%	0.00				216,339.31	2,133,996.00	-1,917,656.69	10.14%
7007 · INTEREST EXPENSE-EPFP	0.00				8,401.80				8,401.80	0.00	8,401.80	100.0%
Total Expense	374,663.84	3,462,440.00	-3,087,776.16	10.82%	279,118.25	3,565,791.00	-3,286,672.75	7.83%	653,782.09	7,028,231.00	-6,374,448.91	9.3%
Net Surplus/(Deficit)	-138,036.84	0.00	-138,036.84	100.0%	612,330.75	0.00	612,330.75	100.0%	474,293.91	0.00	474,293.91	100.0%

CACHUMA OPERATION & MAINTENANCE BOARD

BOARD MEMORANDUM

Date:	September 24, 2018
Submitted by:	Janet Gingras

SUBJECT: Investment Report – August 31, 2018

RECOMMENDATION

The Board of Directors receive and file the Cachuma Operation and Maintenance Board Investment Report as of August 31, 2018.

DISCUSSION

Cash and investment programs are maintained in accordance with California Government Code Section 53600 et seq. and COMB's adopted investment policy. These policies ensure proper control and safeguards are maintained throughout the financial transaction process. Pursuant to State law, the COMB Board adopts a detailed investment policy through a Board resolution on an annual basis.

Reports on COMB's investment portfolio and cash position are developed and presented to the COMB Board on a monthly basis, in conformity with the California Government Code.

Unrestricted Cash

Unrestricted cash exceeding current operating needs is invested in LAIF to generate interest income. The average monthly effective yield rate, as of August 2018, is reported at 1.998%.

See Table 1 below for a summary of balances held in unrestricted accounts.

TABLE 1		
Unrestricted Reserve Funds	Date	Principal
Local Agency Investment Fund (LAIF)		
Previous Balance	7/31/2018	1,793,774.22
(+) Deposits/Credits		-
(-) Checks/Withdrawals		-
Statement Balance	8/31/2018	\$ 1,793,774.22

Restricted Cash

The Cachuma Project Warren Act Trust Fund (Trust Fund) and Cachuma Project Master Contract Renewal Fund (Renewal Fund) are two separate funds that have been established through contracts with the U.S. Bureau of Reclamation (Reclamation). The Trust Fund and the Renewal Fund require annual and five-year plans which are used to inform the Funds Committee in making decisions on expenditures for betterment of the Cachuma Project.

See Table 2 below for a summary of balances held in restricted accounts.

TABLE 2						
Restricted Reserve Funds	Date		Principal			
American Riviera Bank Renewal Account						
Previous Balance	7/31/2018		10,215.61			
(+) Deposits/Credits			-			
(-) Checks/Withdrawals			-			
Statement Balance	8/31/2018	\$	10,215.61			
American Riviera Bank Warren Acct Trust Fund						
Previous Balance	7/31/2018		909,054.72			
(+) Deposits/Credits			-			
(-) Checks/Withdrawals						
Statement Balance	8/31/2018	\$	909,054.72			

STATEMENT

The above statement of investment activity for the month of August, 2018, complies with legal requirements for investment policy of government agencies, AB 1073. I hereby certify that it constitutes a complete and accurate summary of all American Riviera Bank and LAIF investments of this agency for the period indicated.

Secretary

Cachuma Operation & Maintenance Board Paid Claims As of August 31, 2018

		Name	Memo	Amount
1050 · General			Mand Abatamant Cumulian (One)	00.07
08/07/2018		A-OK Power Equipment-SB	Weed Abatement Supplies (Ops)	-88.67
08/07/2018 2 08/07/2018 2		Accountemps Aqua-Flo Supply	Temp Office Admin Labor W/E 7/13/18 & 7/20/18 Quiota Creek Crossing 5 - Silt Fence Supplies (Fish)	-3,740.93 -312.26
08/07/2018		Carpinteria Valley Lumber Company	Misc Supplies (Ops)	-16.04
08/07/2018		City of Santa-Barbara	Trash/Recycling - July 2018	-223.05
08/07/2018		Cushman Contracting Corp.	Emerg Pumping System Pay Reg #51-Phase II	-7,000.00
08/07/2018		Cushman Contracting Corp.	Thomas Debris Flow (Ops)	-4,683.27
08/07/2018		ECHO Communications	Message Service - July 2018	-67.75
08/07/2018	26216	Federal Express	Mailings (Ops & Fish)	-64.21
08/07/2018	26217	Giffin Rental & Western Welding	Equipment - Trap Parts (Fish)	-419.50
08/07/2018	26218	J&C Services	Office Cleaning Service - July 2018	-600.00
08/07/2018	26219	Kristen Sneddon	Director Meeting Fees - July 2018	-309.04
08/07/2018	26220	Lauren W. Hanson	Director Meeting Fees - July 2018	-155.45
08/07/2018		MarBorg Industries	Portable Facilities - Outlying Stations	-328.30
08/07/2018		Musick, Peeler & Garrett LLP	General Counsel - June 2018	-19,964.00
08/07/2018		Nestle Pure Life Direct	Operations - Safety	-71.30
08/07/2018		Orchard Business/SYNCB	Misc Supplies (Ops & Fish)	-25.73
08/07/2018		Pacific Coast Jiffy Lube	2015 Chevy Silverado 1500 Veh #131 Service & Oil Change (Ops)	-120.30
08/07/2018		Paychex, Inc. (Payroll)	Payroll & Payroll Tax Services - July 2018	-210.17
08/07/2018 2 08/07/2018 2		PG&E PG&E	Electricity - Tecolote Tunnel	-26.47 -477.84
08/07/2018		Powell Garage	Electricity - North Portal 2006 Ford Ranger Veh #124 AC/Heater Repair (Ops)	-296.16
08/07/2018		Quinn Company	Lauro & North Portal Annual Generator Service	-3,805.66
08/07/2018		Turenchalk Network Services, Inc.	Watchguard Firebox T35 Firewall	-1,375.97
08/07/2018		Underground Service Alert of So. Calif.	99 Ticket Charges & Database Fee (Ops)	-173.35
08/07/2018		W. Douglas Morgan	Director Meeting Fees - July 2018	-321.80
08/07/2018		Wells Fargo Vendor Fin Serv	Copier Lease Payments - Taskalfa 3051ci & 6052ci	-446.08
08/14/2018		A-OK Power Equipment-SB	Mowing & Weed Abatement Supplies (Ops)	-221.50
08/14/2018	26237	Accountemps	Temp Office Admin Labor W/E 7/27/18 & 8/3/18	-3,554.53
08/14/2018	26238	AT&T	Long Distance Charges - 6/28/18-7/26/18	-549.97
08/14/2018	26239	Business Card	Education, Supplies & Domain Renewals (Ops & Fish)	-4,187.80
08/14/2018	26240	CONTECH Engineered Solutions, LLC	Quiota Creek Crossing No. 9 - deposit	-95,962.15
08/14/2018		VOID	VOID	0.00
08/14/2018		Culligan of Sylmar	RO Rental 7/1/18-8/31/18	-55.90
08/14/2018		Filippin Engineering, Inc.	Quiota Creek Crossing No. 5 - Engineering Services	-1,555.50
08/14/2018		Frontier Communications	Main Office Phone Service - August 2018	-432.61
08/14/2018		Frontier Communications	Carpinteria Phone Service - August 2018	-56.26
08/14/2018		Frontier Communications	North Portal Phone Service - August 2018	-56.29
08/14/2018		Frontier Communications	Ortega Phone Service - August 2018	-56.26
08/14/2018 2 08/14/2018 2		Frontier Communications Harrison Hardware	SCADA Phone Service - August 2018	-571.87 -919.17
08/14/2018		Home Depot Credit Services	Cedar Fencing & Supplies (Ops & Fish)	-919.17 -582.26
08/14/2018		Instrument & Valve Services Company	Cedar Fencing & Paint Supplies (Ops) Quarterly Calibration of 5 Meters (Ops)	-1,862.42
08/14/2018		Kenneth A. Knight, Consulting	Quiota Creek Crossing No. 5 & Oak Tree Program - Arborist Services	-1,300.00
08/14/2018		Manzanita Nursery	Black Cottonwood Trees (Fish)	-1,300.00
08/14/2018		Nutrien Ag Solutions, Inc.	Rodent Abatement (Ops)	-85.74
08/14/2018		Peter Lapidus Construction, Inc.	Quiota Creek Crossing No. 9 - Construction	-29,805.00
08/14/2018		Peter Lapidus Construction, Inc.	Quiota Creek Crossing No. 5 - Construction	-158,850.00
08/14/2018		Powell Garage	2005 Ford F550 Veh #121 Oil Change, Replace front brake pads & rotors (Ops)	-739.59
08/14/2018		Powell Garage	2013 International Water Truck Veh #133 Repair Axle leak, Radiator Service (Fish)	-756.82
08/14/2018		SB Home Improvement Center	Misc Supplies (Ops)	-15.20
08/14/2018		Southern California Edison	Electricity - Main Office & Outlying Stations	-1,955.73
08/14/2018		Staples Credit Plan	Office Supplies (Ops & Fish)	-820.29
08/14/2018	26262	VOID	VOID	0.00
08/14/2018	26263	Wright Express Fleet Services	Fuel for Fleet vehicles	-2,679.46
08/15/2018	26264	Verizon Wireless	Wireless Phones & Modems (Ops)	-680.12
08/27/2018	ACH082518A	American Riviera Bank (ARB)	EPFP Loan Pmt	-28,123.75
08/27/2018		American Riviera Bank (ARB)	EPFP Loan Pmt	-10,354.21
08/30/2018		A-OK Power Equipment-SB	Supplies & Chain Saw Repair (Ops)	-204.04
08/30/2018	26266	County of SantaBarbara	Lauro Yard Cleanup Waste Disposal (Ops)	-95.38

Cachuma Operation & Maintenance Board Paid Claims As of August 31, 2018

Date N	lum Name	Memo	Amount
08/30/2018 26267	Flowers & Associates, Inc.	SYC Slide Repair Engineering	-5,071.62
08/30/2018 26268	B Orchard Business/SYNCB	Supplies (Ops)	-19.34
08/30/2018 26269	PG&E	Electricity - North Portal & Tecolote Tunnel	-361.99
08/30/2018 26270) Turenchalk Network Services, Inc.	Network Software Support	-532.90
Total 1050 · General	Fund		-398,479.82
			-398,479.82
	APPROVED FOR PAYMENT		

Director

Director

Director

CACHUMA OPERATION & MAINTENANCE BOARD

Operations Committee Meeting

3301 Laurel Canyon Road Santa Barbara, CA 93105

Monday, September 17, 2018 1:00 p.m.

AGENDA

Chair:Director SneddonMember:Director Morgan

- 1. Call to Order
- 2. Public Comment (*Public may address the Committee on any subject matter not on the agenda and within the Committee's jurisdiction*)
- 3. Water Quality and Sediment Management Study Proposal (for information and possible recommendation)
- 4. Annex to Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (for information and possible recommendation)
- 5. Cachuma Conveyance Operations Fiscal Year 2018-19 (for information)
- 6. Infrastructure Improvement Projects Update (for information)
- 7. Construction Projects within USBR Right-of-Way (for information)
- 8. Adjournment

NOTICE TO THE PUBLIC

Public Comment: The public is welcome to attend and observe the meeting. A public comment period will be included at the meeting where any member of the public may address the Committee on any subject within the Committee's jurisdiction. The total time for this item will be limited by the Chair.

Americans with Disabilities Act: In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Cachuma Operation & Maintenance Board (COMB) at 687-4011 at least 48 hours prior to the meeting to enable staff to make reasonable arrangements.

[This Agenda was posted at COMB offices, 3301 Laurel Canyon Road, Santa Barbara, CA and Noticed and Delivered in Accordance with Section 54954.1 and .2 of the Government Code.]

CACHUMA OPERATION & MAINTENANCE BOARD

BOARD MEMORANDUM

Date:	September 24, 2018
Submitted by:	Joel Degner, Elijah Papen
Approved by:	Janet Gingras

SUBJECT: Resolution No. 673 - Lake Cachuma Water Quality and Sediment Management Study

SUMMARY:

The Zaca Fire (2007), White Fire (2013), Rey Fire (2016), Whittier Fire (2017), and Thomas Fire (2017) have impacted the watershed, water quality and water storage in Lake Cachuma. Between the five fires listed approximately 180,000 acres of the watershed (two-thirds) have burned. These recent fires have denuded extensive amounts of vegetation which will produce abundant amounts of sediment and debris during stormflows, much of which will deposit into Lake Cachuma. Although the long-term impacts of the fires on surface water quality are not well understood, possible impacts could include increased nutrient loading, dissolved organic carbon, major ions, fire-fighting compounds, turbidity, and general treatability challenges. The fire impacts can also accelerate ongoing sedimentation in the reservoirs, which can reduce storage capacity.



Through a Request for Proposal (RFP) process, COMB solicited proposals for the development of a Water Quality and Sediment Management Study (the Study) which will establish management actions to address raw surface water quality and sedimentation today, and in the future. The Study is envisioned to not only address fire impacts, but will also include costs of identification and characterization of all water quality issues, mitigation and control projects, and management actions that may include, but not be limited to, sampling and data collection, in-lake treatment, erosion control, sediment removal, and watershed management. The Study will be developed in coordination with agencies that manage, operate, and use the lake and its watershed for drinking water purposes. Below are some examples of what COMB will obtain as a result of this study:

- Identification and characterization of immediate future and mid-term impacts of fires related to organic carbon, sediment, erosion control/soil loss, hydromulching, total suspended solids, turbidity, ash, fire retardants, nutrient management and other potential contaminants.
- Identification and characterization of other potential surface water impacts related to cyanobacteria/harmful algal blooms, MIB, geosmin, cyanotoxins, mercury and other metals of concern, sulphur and other ions of concern, submergence of terrestrial plants, taste/odor altering compounds to drinking water, bromide issues from SWP dominated water and other surface water issues.

- An understanding of how relevant management issues at Lake Cachuma have impacted water quality including wildfire management, wildlife management, invasive species, vegetative management, agricultural management, recreation, land management, mining, and others issues.
- Recommendations and prioritization of potential solutions and best management practices including but not limited to sediment mitigation and removal actions, in-lake continuous surveillance/monitoring, prevention, operations, treatment projects, watershed-based projects and management actions, decentralized treatment projects and education programs.

COMB issued an RFP to five qualified consulting firms specializing in water quality and sediment management issues. Two proposals were received for the Study: Geosyntec Consultants and Woodard & Curran. Per the RFP, each proposal was evaluated and scored based on the following weighted categories: responsiveness (20%), specialized experience/technical competence (30%), availability of key staff (10%), cost of services estimate (10%), proposed technical approach (20%), and records of performance (10%). Categories were scored from 1 to 5 and then averaged and weighted. The selection committee consisted of technical staff from each Member Agency.

Further review and analysis of the two cost proposals provided the following insight. Geosyntec assumed the overall study would consist of 2,104 hours of effort compared to 2,243 consultant hours assumed by Woodard & Curran. The average cost per hour provided by both consultants was within 1 percent of each other. Geosyntec placed a large portion of consultant hours within the first two tasks (1. Data collection and review, 2. Lake issues and relevance) as compared to Woodard & Curran who provided the majority of consultant hours for tasks affiliated with identifying potential solutions and best management practices.

The committee evaluated the proposals and is recommending Woodard & Curran as the most qualified candidate (Table 1).

Category	Weight	Geosyntec	Woodard and Curran		
Responsiveness	20%	0.90	0.90		
Specialized Experience/Technical Competence	30%	1.13	1.35		
Availability of Key Staff	10%	0.45	0.45		
Proposed Technical Approach	20%	0.80	0.80		
Records of Performance	10%	0.43	0.50		
Cost of Services Estimate	10%	0.50	0.50		
Total		4.21	4.50		

Table 1.Weighted Scores from the Selection Committee

FISCAL IMPACTS:

The Lake Cachuma Water Quality and Sediment Management Study is budgeted for fiscal year 2018-19. An application for Prop 1 funding through CDFW was submitted on June 13th, 2018. On September 17th, COMB received notice from CDFW that the application was not selected for funding. However, this project received an extremely favorable response from project proponents for submission to the upcoming IRWMP Prop 1 funding process. Project awards would be announced in spring 2019.

LEGAL CONCURRENCE:

General Counsel reviewed COMB Resolution No. 673 as to form.

ENVIRONMENTAL COMPLIANCE:

The project is a water quality and sediment management study, which does not require CEQA or environmental permits. Management actions that arise from the plan may require CEQA and/or environmental permits, which will be evaluated at that time.

COMMITTEE STATUS:

The Operations Committee reviewed the proposal and associated staff memorandum and forwards, through a resolution, the selection of Woodard & Curran to perform the Lake Cachuma Water Quality and Sediment Management Study in an amount not to exceed \$419,000 to the Board of Directors with a recommendation to approve; and authorize the General Manager to execute a Professional Services Agreement with said consultant.

RECOMMENDATION:

The Board of Directors approve, through Resolution No. 673, the selection of Woodard & Curran to perform the Lake Cachuma Water Quality and Sediment Management Study in an amount not to exceed \$419,000; and authorize the General Manager to execute a Professional Services Agreement with said consultant.

LIST OF EXHIBITS:

1. Resolution No. 673

RESOLUTION NO. 673

RESOLUTION OF THE GOVERNING BOARD OF THE CACHUMA OPERATION & MAINTENANCE BOARD APPROVING SELECTION OF CONSULTANT AND AUTHORIZING EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH WOODARD & CURRAN CONSULTANTS FOR THE LAKE CACHUMA WATER QUALITY AND SEDIMENT MANGEMENT STUDY

WHEREAS, the Cachuma Operation & Maintenance Board ("COMB") is a joint powers authority and public entity, organized and existing in the County of Santa Barbara in accordance with Government Code Section 6500 <u>et seq.</u>, and operating pursuant to the 1996 Amended and Restated Agreement for the Establishment of a Board of Control to Operate and Maintain the Cachuma Project - Cachuma Operation And Maintenance Board, dated May 23, 1996 ("Amended and Restated Agreement"), as amended by an Amendment to the Amended and Restated Agreement made effective September 16, 2003 (collectively the "Joint Powers Agreement"); and

WHEREAS, the Member Agencies of COMB consist of the City of Santa Barbara, the Goleta Water District, the Montecito Water District, the Carpinteria Valley Water District (collectively herein the "South Coast Member Agencies"); and

WHEREAS, Lake Cachuma is the principal drinking water supply for the South Coast region of Santa Barbara County, providing water to more than 200,000 residents; and

WHEREAS, COMB operates and maintains Cachuma Project facilities pursuant to a Transfer of Operation and Maintenance Contract with the United States Bureau of Reclamation, including conveyance of Cachuma Project and State Project Water to the South Coast of Santa Barbara; and

WHEREAS, a seven (7)-year critical drought period coupled with unprecedented wild fires within the Lake Cachuma watershed has created a number of challenges for water quality and sediment management; and

WHEREAS, a Request for Proposals ("RFP") was distributed to five (5) qualified consultants to perform an extensive study on water quality and sediment management within the Lake Cachuma watershed to be known and referred to as the "Lake Cachuma Water Quality and Sediment Management Study" ("Project"); and

WHEREAS, two consultants responded to the RFP for the Project and, after review and evaluation by Member Agency technical staff, consultant Woodard & Curran prevailed as having submitted the best qualified, and most responsible proposal for this critical program of work; and

WHEREAS, the approved operating budget for Fiscal Year 2018-19 contains funding specifically for the Project; and

WHEREAS, it is in the best interest of the Governing Board of COMB to approve the selection of Woodard & Curran to perform the Lake Cachuma Water Quality and Sediment Management Study and authorize the General Manager to execute a Professional Services Agreement with said consultant in an amount not to exceed \$419,000.00;

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF COMB AS FOLLOWS:

1. The Governing Board finds and determines that the facts set forth in the above recitals and in the documents referenced herein are true and correct.

2. The Governing Board approves the selection of Woodard & Curran to perform the Project, namely, the Lake Cachuma Water Quality and Sediment Management Study; and authorize the General Manager to execute a Professional Services agreement with said consultant.

3. The Governing Board further authorizes COMB's officers and staff, including the General Manager, to continue to do all things necessary and appropriate, including, but not limited to, execution and delivery of necessary documents, and any other actions to implement the Project using the approved expenditures.

4. This Resolution shall take effect immediately.

PASSED, APPROVED AND ADOPTED by the Governing Board of the Cachuma Operation and Maintenance Board, this 24th day of September 2018, by the following roll call vote:

Ayes: Nays: Absent: Abstain:

APPROVED:

President of the Governing Board

ATTEST:

Secretary of the Governing Board



Mission Statement:

"To provide a reliable source of water to our member agencies in an efficient and cost effective manner for the betterment of life in our communities."

September 24, 2018

General Manager Report

The following summary provides the Board with information and an overview of progress on current COMB activities.

<u>Meetings</u>

• Bureau of Reclamation – Water Rates Administration

A meeting with representatives from the Bureau of Reclamation's rate-setting staff, Reclamation Fresno Area Office staff, the County Water Agency, and the Cachuma Project Member Agencies was held on Monday, September 10th to review a proposed methodology and a schedule for repayment of previous fiscal year deficits and extraordinary costs. Reclamation staff provided information explaining the formulation of rates to recover the deficits over a five year period. In addition, a presentation by Reclamation (Region) was given regarding provisions contained in the Water Infrastructure Improvement for the Nation Act (WIIN Act) related to the Master Contract renewal process.

Administration

• Separation Agreement

The Separation Agreement entered into by the Santa Ynez River Water Conservation District, ID No. 1, COMB, and the South Coast Member Agencies was approved by all parties and became effective as of August 28, 2018. On Friday, August 31, 2018, pursuant to the terms and conditions of the Separation Agreement, COMB received from ID No. 1 the payment of the outstanding assessments in the amount of \$167,500 for fiscal years ending 2015 and 2016. Pursuant to the Separation Agreement, upon COMB's receipt of the outstanding assessments on August 31, 2018, ID No. 1 was deemed no longer a Member Agency of COMB and had departed from the COMB JPA Agreement as of May 27, 2016. Per the Separation Agreement, for fiscal year 2017-18 and going forward, actual expenditures will be collected through an invoice issued by COMB.

• Fiscal Year 2017-18 Financial CAFR Audit Fieldwork

The audit fieldwork for the Fiscal Year 2017-18 financial CAFR audit has begun with anticipation of providing the Administrative Committee a presentation and results of the audit during the November timeframe. The Board of Directors will receive a presentation at the December Board meeting.

• Thomas Debris Flow - FEMA Reimbursement

Attached is an updated claims reimbursement schedule for the FEMA-DR-4353 Thomas Debris Flow. The total amount submitted was \$125,480 and is further broken down by area of responsibility, as follows:

Federal Share	\$ 101,422	81%
Cal OES Share	\$ 19,847	16%
COMB Responsbility	\$ 4,211	3%
Total Claims Submitted	\$ 125,480	100%

To-date, COMB has collected \$119,700 in payments related to four claims submitted for reimbursement. COMB currently has approximately \$1,570 outstanding which represents an additional 10% administrative allowance awarded by CalOES.

• Draft Transferred Project Works Contract (O & M contract)

Reclamation has indicated the draft Transferred Project Works Contract will be presented to COMB during the 2nd quarter of the current fiscal year. An updated schedule is expected to be forthcoming from Reclamation.

<u>Personnel</u>

• ACWA/JPIA Defensive Driving Course

Lee Patton, Senior Risk Management Advisor was onsite to present ACWA's defensive driving course to staff. ACWA/JPIA recommends this training every four years for agency staff. The training course included topics such as understanding collisions, causes of motor vehicle crashes, occupant protection systems, common hazards, distracted drivers, aggressive driving and road rage, and work zones. The Administrative Division tracks employee training courses to maintain compliance with insurance requirements.

Operations / Engineer Activities

• USBR Dive Inspections – Lauro

Reclamation performed an underwater inspection completed by the Regional Dive Team as part of the regularly scheduled USBR Review of Operation and Maintenance (RO&M) inspection program. The purpose of the inspection was to examine the Lauro Dam outlet works intake structure's condition including structural concrete, trash racks, and other components such as fish screens. COMB staff initiated internal operational protocols before, during and after the inspection. The previous inspection of this facility was performed during 2012. The inspection process included picture and video documentation. The report will be finalized by Reclamation and sent to COMB once completed.

• Arroyo Paredon Bridge Replacement Project - Caltrans

CalTrans is currently working under emergency status with respect to replacement of the Arroyo Paredon Bridge on Highway 192 in the Carpinteria area. Rock slope protection and channel stabilization is underway. COMB operations staff continues to monitor construction activity on a daily basis to ensure the South Coast Conduit is not impacted during the restoration process.

• Sycamore Canyon Slope Stabilization Project

Final engineering designs have been received from Flowers and Associates. Since a potential for FEMA hazard mitigation grant funding exists, staff postponed the solicitation of bids on the project until after the winter season. The operations crew will winterize the site prior to commencement of the rainy season. Contractor bids will be solicited during late spring 2019.

Fisheries Division Activities

The Fisheries Division staff conducted all required 2000 BiOp compliance monitoring throughout the month as requested by Reclamation. Specific monitoring tasks include water quality monitoring, lake profiles, snorkel surveys, target flow monitoring, RPM 6 monitoring for downstream releases, and photo point documentation. Staff continues to work with Reclamation to complete all Annual Monitoring Summaries and Annual Monitoring Reports. The Lake Cachuma Oak Tree Restoration Program continues to be a large focus of staff who are meeting the program's objectives.

General Manager Report September 24, 2018

The Quiota Creek Crossing 5 and Crossing 9 projects are well under construction and are both on track to be completed by the middle of December. Staff continues to conduct all the required biological monitoring and work closely with the projects' resident engineer on construction oversight.

Staff has been collaborating with the Cater Treatment Plant personnel in monitoring water quality in Lauro Reservoir to best understand the value of the Kria water quality treatment effort and pilot project.

Respectfully Submitted,

Janet Gingras

General Manager

CACHUMA OPERATION AND MAINTENANCE BOARD

MEMORANDUM

DATE: September 24, 2018

TO: Janet Gingras, General Manager

FROM: Joel Degner, Water Resources Engineer

RE: MONTHLY ENGINEERING REPORT

The following summary provides the Board with information and an overview of progress by engineering staff.

FORECASTED LAKE ELEVATIONS

Engineering staff continues to monitor and model lake elevations (Figure 1). The Lake Elevation Projection Model has been updated with data through August 20, 2018. The current forecast tracks with previous modeling efforts. If drought conditions continue in 2018-2019, the Notice to Proceed for the installation of the Emergency Pumping Facility would be needed in April 2019 to have the EPFP operational by September/October 2019. Updated forecasts through September 2020 will be requested from the Member Agencies to allow modeling through September 2020.

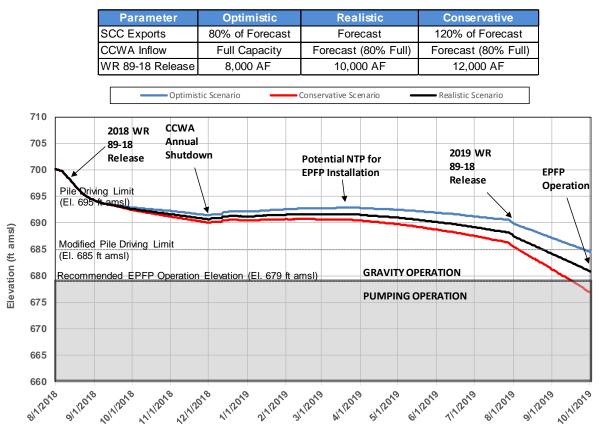


Table 1. Lake Elevation Projection Scenarios

Figure 1. Lake Cachuma Elevation Forecast (as of 9/12/2018) using 2015 Dry Year Hydrology

Item #7 Page 1 The downstream water rights release began as scheduled on August 6th, 2018 and was completed on September 12th. Based on the Bureau of Reclamation daily operations reports, approximately 8,060 acre-feet of water was released from Lake Cachuma as part of the 2018 downstream release. Santa Ynez River Water Conservation District (SYRWCD) communicated with COMB throughout the release and the overall release was less than the 10,000 acre-feet expected to be released by SYRWCD.

CLIMATE CONDITIONS

Santa Barbara County is in severe drought (D2) as of September 11, 2018 according to the United States Drought Monitor. The National Weather Service Climate Prediction Center predicts a 50 to 55 percent chance for El Nino conditions in the Northern hemisphere fall 2018 (September to November) increasing to 65 to 70 precent during the winter of 2018-2019. (Note: Previously predicted El Nino conditions during the last several years [2012-2018] did not result in above average rainfall for Santa Barbara County). The Lake Cachuma Evaporation Pan monthly totals continue to track with the historical median in 2018 (Figure 2).

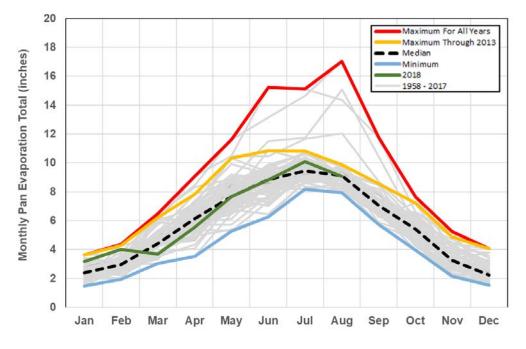


Figure 2. Lake Cachuma Monthly Pan Evaporation Totals

GRANT FUNDING ACTIVITIES

COMB recieved a letter of support from the Santa Barbara County Office of Emergency Services to prepare an Annex that would be included in the County's Multi-jurisdictional Hazard Mitigation Plan (HMP Annex) which would improve eligibility for FEMA Hazard Mitigation Grant Program (HGMP) funding. COMB has prepared a draft HMP Annex and received initial comments from the Member Agencies. COMB staff is updating the plan for the Board to review and submit to the County in October. COMB received notification from CalOES that the Notice Of Interest for the Sycamore Canyon Slope Stabilization was an eligible activity and confirmed a formal invitation to prepare a subapplication for HGMP grant funding. COMB submitted a subapplication for the project on September 4, 2018. COMB staff continues to track Integrated Regional Water Management Plan Proposition 1 Funding and re-occuring Bureau of Reclamation grant opportunities. COMB was notified by California Department of Fish and Wildlife on September 11, 2018 that the grant application submitted for the Lake Cachuma Water Quality and Sediment Mangement Study was not selected for funding.

INFRASTRUCTURE IMPROVEMENT PROJECT STATUS

Table 2 provides a summary of the FY 2018-2019 Infrastructure Improvement Projects. The table has been updated according to COMB's 2018-2019 Operating Budget. COMB staff is also working on the 2019-2020 Infrastructure Improvement Plan which will be distributed for the member agencies to review later this year.

Infrastructure Improvement Projects	Status / Phase	Complexity / Challenges	Estimated Completion Date							
Infrastructure Improvement Projects										
Sycamore Canyon Slope Stabilization	Final designs prepared for COMB's approval. Reclamation is completing NEPA analysis. Project is undergoing environmental review and requires FEMA approval. Bid documents are prepared and plan to be issued in Spring 2019.	Several components (permitting, potential fo winter rains, and grant funding) resulted in a delay of the to 2019.	September 2019							
SCC Structure Rehabilitation (AVAR/BO)	Schedule A, B, C work to be completed in FY 2018- 2019 (Cater WTP to Barker Pass). Next step is to complete the work plans for Sch. A and B with contractor in preparation for shutdown. Sites have been visited by contractor. Submittals are undergoing review.	Work to be completed in low demand months. Two 3- day shutdowns required which need to be coordinated with Member Agencies demands.	May 2019 (Sch. A, B, C)							
Lateral 3 Repair	Construction contract in place, parts ordered, repair scheduled for winter months of FY 2018-2019.	Requires 10-day shutdown in upper reach of the system.	February 2019							
Rehabilitate San Antonio Creek Blow- off	Draft design complete. Required replacement valves have been ordered. Next step is to finalize design and bid project. Repair planned to be timed with Lateral 3 shutdown in FY 2018-2019.	The repair requires shutdown in upper reach of the system and is planned to occur during Lateral 3 shutdown.	February 2019							
SCC Line Valves for Shutdown	Pre-project planning. Determine if installation can be completed with shutdown or if bypass will be required. Next step is RFP preparation.	Additional line valves in the SCC could better facilitate planned maintenance activities.	Design by June 2019							
SCC Structure Rehabilitation : Lower Reach Laterals	Staff started work with CWWD and CWWD contractor on lateral shutdowns requirements for each lateral. This project will involve a condition assessment and rehabilitation plan for the portions of the Lower Reach laterals under COMB's responsibility.	In order to facilitate shutdowns on the Lower Reach of the SCC, lateral valves may need replacement.	Design by June 2019							
Special Projects										
Emergency Pumping Facility Project	Contract and permits in place for re-deployment if necessary. Board approved delay option until the Spring (March/April). Monitoring forecasts and lake levels closely.	Need highly dependent on lake levels and actual downstream releases. Current design requires long lead time in installation before the barge is utilized.	TBD							
	RFP issued end of July. Proposals have been received. Study will be overseen by technical review committee of Member Agency staff.	Recent wildfires will likely result in decreased water quality and increased sedimentation into Lake Cachuma.	March 2020							

Table 2. Infrastructure Improvement Projects Status

CACHUMA OPERATION AND MAINTENANCE BOARD

MEMORANDUM

- DATE: September 24, 2018
- TO: Janet Gingras, General Manager
- FROM: David Flora, Operations Division Lead
- RE: MONTHLY OPERATIONS DIVISION REPORT

Operations – Report Attached

MONTHLY OPERATIONS DIVISION REPORT



SEPTEMBER 24, 2018

CACHUMA OPERATION & MAINTENANCE BOARD DAVID FLORA



Item #8 Page 2

Monthly Operations Division Report

Introduction

The Operations Division of the Cachuma Operation and Maintenance Board has the responsibility to operate, repair and maintain all Cachuma Project facilities from the Intake Tower at Lake Cachuma to the Carpinteria Reservoir. The Annual Work Plan sets forth all activities necessary to ensure system reliability. Consistent with the Plan, Operation and Maintenance staff performs routine maintenance on the distribution and storage system. Staff continues to improve the system, address deficiencies and identify items to be included in the Infrastructure Improvement Program of work.

Operations Division is responsible for:

- Adequately regulating and maintaining the diversion of water from Lake Cachuma to the South Coast via the Tecolote Tunnel as the primary water source for 5 communities.
- Operation and maintenance of the South Coast Conduit pipeline, which consist of 26.5 miles of pipeline with a combined 124 blow off and air vent structures, 43 turnout structures and 20 meters.
- Operation and Maintenance of four regulating reservoirs.
- Prompt response to Underground Service Alerts (USA's) within the USBR right-of-way.

Operations staff regularly performs the following duties:

- Weekly off site inspections of major facilities
- Structure maintenance on all air vent, blow off and turnouts
- Dam inspection and instrumentation reports (all reservoirs)
- Annual exercising of control valves
- Quarterly meter calibrations
- Weekly safety meetings
- Weekly rodent bait (all reservoirs)
- Weekly toe drain and piezometer reads at Ortega (L23)
- USA Dig Alerts Respond as necessary to alerts
- Pesticide report to County of Santa Barbara
- Operational tests of generators at the North Portal and at Lauro Yard
- Inspection of fire extinguishers
- Read anodes and rectifier data
- Water samples taken at Lake Cachuma
- Clean up, inspection and tool inventory of all vehicles
- Clean up and organize service yard and all buildings

"Our mission is to provide a reliable source of water to our member agencies in an efficient and cost effective manner for the betterment of our community."

Lake Cachuma Operations

The total flow from Lake Cachuma into the Tecolote Tunnel for August was 2320.9 acre-feet, for an average daily flow of 74.86 acre-feet. Lake elevation was 700.12 feet at the beginning of August and 694.27 feet at the end of August. Storage change decreased 9,003 acre-feet. CCWA wheeled 1,230.4 acre-feet of water to Cachuma Project facilities.

South Coast Conduit Operations

	South Coast Conduit - Structure Inventory												
Reach	Endpoints	Linear Length (ft)	Pipe	Regulating Storage Reservoirs	Meters	Air Vents	Blow- Offs	Turnouts	Open Air Vents	Valves	Valve Size	Slide Gates	Capacity / Volume (gal)
Upper	Glen Annie Turnout (S. Portal) - Cater Water Treatment Plant	64,050	48"	2	5	32	35	18	2	115	4" - 48"	7	6,017,421
Lower	Cater Water Treatment Plant - Carpinteria Reservoir	90,910	27" - 36"	2	15	26	31	42	4	144	4" - 36"	-	3,190,171

- Staff has been on site monitoring several ongoing projects throughout the area, working closely with the construction and engineering contractors to ensure that:
 - Pipeline easements and the right-of-way remain accessible to Operations staff for possible emergencies and ongoing facility maintenance.
 - All projects are following the COMB and USBR approved plans.
 - No damage occurs to the SCC during the construction process.
- Continued daily monitoring of the Arroyo Paredon bridge replacement project located in Carpinteria. Cal Trans / Lash Construction began work June 4th removing the bridge which was damaged during the January 9th debris flows.
- Assisted the USBR in the dive inspection of the Lauro Reservoir intake structure. Coordination between Corona Del Mar WTP, Cater WTP and COMB allowed the operations team to successfully isolate Lauro reservoir and directly feed Cater WTP via South Coast Conduit. To isolate Lauro Reservoir, several large valves were operated which also completes their required annual valve exercising.
- Inspected Laterals 1 14 in the Carpinteria reach with representatives for Carpinteria Valley

Water District and Flowers and Associates.

- Inspected several sites the Cushman Construction Corporation in preparation of the Air Vacuum Air Release (AVAR) Valve and Blow-off Structure Rehabilitation and Replacement.
- Completed three Category 3 recommendations that were noted following the 2017 USBR Carpinteria Dam Periodic Facility Review.
- Completed the cathodic protection survey of the systems in place along the SCC with a technician from Farwest Corrosion, inspecting all impressed current and sacrificial anodes for proper function.
- Obtained the Lake Cachuma monthly water sampling for the City of Santa Barbara staff.
- The Operations department continually inspects all sites, reservoirs and the SCC for items to add to the IIP for future projects.

OPERATIONS PROJECT PHOTOS

Lauro Dive Inspection



Carpinteria Lateral Inspection

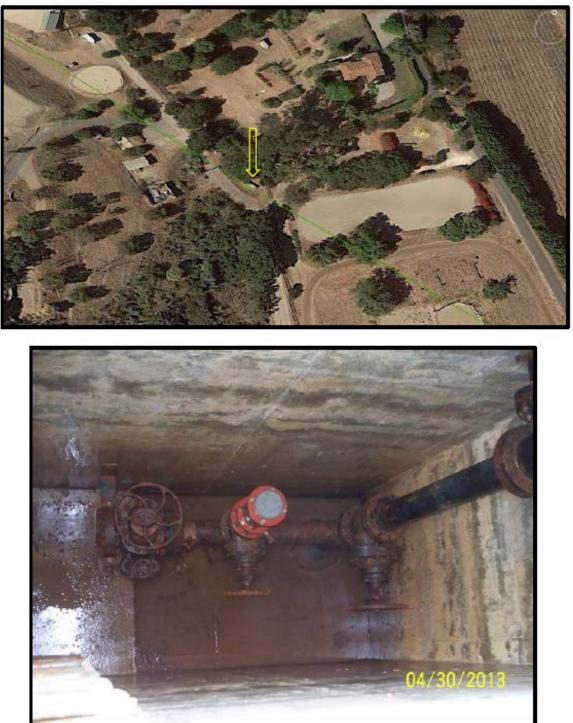




Carpinteria Dam PFR Recommendations (Remove corrosion and paint)

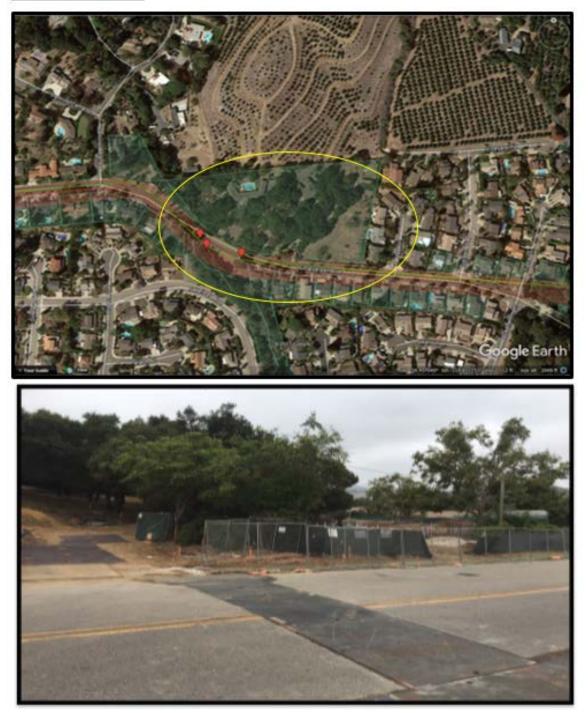
On Going Projects & Monitoring

LAT 3A



Remove abandoned turnout and reconfigure blow off structure.

PATTERSON AVE.



Patterson Oaks subdivision

BOULDERS PROJECT



ARROYO PAREDON



Bridge Replacement

CACHUMA OPERATION AND MAINTENANCE BOARD

BOARD MEMORANDUM

DATE: September 24, 2018

TO: Janet Gingras, General Manager

FROM: Tim Robinson, Fisheries Division Manager

RE: MONTHLY FISHERIES DIVISION REPORT

HIGHLIGHTS:

- USBR activated the Hilton Creek Watering System (HCWS) on 8/1/18 and switched the delivery system to Hilton Creek from the Hilton Creek Emergency Backup System on gravity to HCWS on pumps. Initially water was being released to the Upper Release Point (URP), then to the Lower Release Point but was then moved back to the URP on 8/13/18. Throughout that time, USBR continued to deliver approximately 3.5 cfs to Hilton Creek from Lake Cachuma which is sustaining the *O. mykiss* population in the creek.
- The Quiota Creek Crossing 5 bridge was successfully installed on 8/28/18.
- Construction for the Quiota Creek Crossing 9 started on 9/5/18.

In compliance with the 2000 Cachuma Project Biological Opinion (BiOp) (NMFS, 2000) and as described in the 2004 Lower Santa Ynez River Fish Management Plan (SYRTAC, 2000) and the Monitoring Program in the 2000 Revised Biological Assessment (BA), the COMB Fisheries Division (FD) staff conducts routine monitoring of steelhead/rainbow trout and their habitat on the Lower Santa Ynez River (LSYR) below Bradbury Dam. The following is a list of activities carried out by COMB-FD staff since the last COMB Board Fisheries Division Report and has been broken out by categories.

LSYR Steelhead Monitoring Elements:

Thermograph Network: The thermograph network is deployed at the beginning of April and picked up at the end of December to record water temperatures at all designated locations within the LSYR mainstem and several tributaries. The thermograph network has been deployed in the LSYR mainstem and its tributaries. Thermographs are downloaded monthly and the results are summarized in the Annual Monitoring Summary.

Lake Profiles: Lake Cachuma water quality measurements (temperature, dissolved oxygen concentration solids and turbidity) at one meter intervals from the surface to the bottom of the lake (Lake Profile) are taken once a month at the Hilton Creek Watering System (HCWS) intake barge. This is considered to be near the deepest point in the lake and allows for monitoring of lake stratification, water quality conditions at the intake level for the HCWS and lake-turnover. Due to the drought and the need to carefully monitor Lake Cachuma, lake profiles are being taken monthly throughout the year and are reported in the Annual Monitoring Summary.

Snorkel surveys: Snorkel surveys for *O. mykiss* and non-native fish are conducted three times a year. The first survey at the end of the spring has been completed. The results are presented in the Annual Monitoring Summary.

Cachuma Lake Oak Tree Restoration Program: COMB staff, with guidance from a hired professional arborist, continues to implement the Program and has successfully conducted all management actions as required. A project update is provided in a separate Board memo.

WR 89-18 Release Monitoring: BiOp required monitoring for the WR 89-18 releases (RPM 6) started prior to the release as requested by USBR and will continue until after the releases are stopped. WR 89-18 releases are conducted by the Santa Ynez River Water Conservation District in collaboration with USBR. The 2018 release began on 8/6/18, ended on 9/11/18, and released over that 37 day period approximately 8,060 acre-feet from Lake Cachuma. As requested by USBR and approved by NMFS, migrant trapping was conducted at one location (just downstream of the Long Pool of the Lower Santa Ynez River mainstem) for the first two weeks of the release. No *O. mykiss* were caught in the trap going upstream or downstream.

Tributary Project Updates:

Quiota Creek Crossing 5: As discussed and recommended by the COMB Board on 3/7/16, staff submitted a 2016 CDFW-FRGP Grant on 3/11/16 for \$893,287 with a COMB construction match of \$50,000. COMB was awarded the grant and the COMB Board accepted the grant by resolution on 5/22/17. The Board approved by resolution expenditures of funds for the project on 6/26/17. All permits and final designs for the project have been obtained and approved. The construction of the project was solicited for competitive bidding in conjunction with the Quiota Creek Crossing 9 Project. A contract has been awarded to Peter Lapidus Construction and construction began on 7/23/18. A separate Board memo is provided with details of the ongoing project that discusses the project status specifically the bridge installation on 8/28/18 and financials.

Quiota Creek Crossing 8: Funding for this project have been applied for through three separate grant programs. The initial grant was submitted by the County to Caltrans that required a Cooperative Agreement between the County and COMB. The agreement was discussed at the 5/4/16 Fisheries Committee meeting with approval by the Board on 5/23/16 to move forward with the project and the Cooperative Agreement. The County Board of Supervisors approved the Cooperative Agreement on 7/12/16. With a fully executed Cooperative Agreement, the County submitted a CalTrans Federal Highway Administration (CT-FHWA) grant application to fund the project and CalTrans approved the funding for a full bridge replacement. SBCAG approved the project on 11/17/16. A Professional Service Agreement (PSA) for COMB with the County to manage the project was approved by the Board during the 3/27/17 Board meeting and was fully executed on 5/16/17. The Request for Authorization (RFA) has been sent by the County to Caltrans to begin grant expenditures with no response. Caltrans has informed the County that the Federal prioritization for rural bridge replacement projects (the County's pending grant funding) has been stalled due to being 100% oversubscribed with no additional federal allocation, hence the list of truly awarded projects will not be addressed until 2020, suggesting this funding opportunity is on hold.

The second funding opportunity is through a CDFW-FRGP grant application that was submitted on 3/29/18 for \$1,010,700 with a \$50,000 construction match from COMB as approved by the COMB Board during the 2/26/18 Board meeting. On 5/15/18, the CDFW-FRGP Technical Grant Review Team visited the site. They evaluated the technical aspects of the project, scored it, and then will provide their recommendations to the Director of CDFW. The grant award notices will be given during February 2019.

Finally, a third funding opportunity is through a CDFW-Prop 1 grant application that was submitted on 6/12/18 for the exact same project and same amount of money and construction

match. CDFW provided notice that the proposal did not meet the administrative evaluation criteria due to a minor oversight.

Quiota Creek Crossing 9: COMB was awarded a CDFW-FRGP grant for the Crossing 9 Project for \$993,121 with a \$50,000 COMB construction match. COMB was awarded the grant and the COMB Board accepted the grant by resolution on 2/26/18. The Board approved by resolution expenditures of funds for the project on 4/23/18. All permits and final designs for the project have been obtained and approved. The construction of the project was solicited for competitive bidding in conjunction with the Quiota Creek Crossing 5 Project. A contract has been awarded to Peter Lapidus Construction and construction began on 9/5/18. A separate Board memo is provided with details of the ongoing project.

Salsipuedes Creek – Jalama Road Fish Ladder: There has been no action on the suggested repairs to this project.

El Jaro Creek – Cross Creek Ranch Fish Passage Facility: There has been no action on the suggested repairs to this project.

Hilton Creek Watering System (HCWS) and Emergency Backup System (HCWBS) Repairs and Upgrades plus the Hilton Creek:

HCWS and HCEBS: The HCWS and HCEBS are owned, operated and maintained by USBR. The HCEBS was completed at the end of January 2016. With this system fully operational, USBR has now been working on needed repairs to the HCWS with success on getting the pumping system operational and the HCEBS connected to the HCWS to operate if the HCWS shuts down. The HCWS was primed and started by USBR and has continually been operational since 8/2/18 discharging water initially to the Upper Release Point (URP), then the Lower Release Point (LRP) and then finally back to the URP on 8/13/18 at approximately 3.5 cfs. Work is still needed on the HCEBS to meet complete operational design.

Surcharge Water Accounting:

The following table summarizes the amount of surcharge water used to date from each of the three accounts plus project yield at the end of last month (Table 1). All numbers are from USBR's Daily Operations Report. The start time for the use of the Surcharge Water Accounts and Project Yield was 5/27/11, or the day following the last day of full surcharge and end of the last spill event. As of May 2012, all of the fish rearing accounts have been used and USBR is now using Project Yield to meet BiOp target flows. Water Right (WR 89-18) release durations since 2013 are noted as follows: 7/15/13 - 12/2/13, 8/18/14 -11/11/14, 8/3/15 - 9/26/15, 7/12/16 - 8/29/16, and the most recent release 8/21/17 - 11/8/17. During these releases, no fish rearing releases are debited as WR 89-18 releases are used conjunctively with fish flows under the Cachuma Project Settlement Agreement. The Adaptive Management Committee (AMC) called for two releases from the Adaptive Management Account (AMA), 35 acre-feet in October 2012 and 114 acre-feet in June 2013. The remaining amount in the AMA is 351 acre-feet. There have been no releases from the Fish Passage Supplementation Account (FPSA). Determination of critical drought and the associated accounting and possible usage of the AMA and FPSA during that period have not been finalized and approved (or if those accounts are now replenished from WY2017's runoff) by NMFS and USBR. Therefore they are not reflected in Table 1.

Table 1: Summary of the surcharge water accounting and use of Project Yield as of the day after the end of the last spill event and full surcharge (5/27/11).

Accounts*	Allocation	Amount Used**	Amount Remaining	
Units:	(acre-feet)	(acre-feet)	(acre-feet)	
Fish Passage Supplementation	3,200	0	3,200	
Adaptive Management	500	149	351	
Fish Rearing***	5,484	5,484	0	
Project Yield		23,294		
Total:	9,184	28,927	3,551	
* Originally was 9,200 af, 8,942 af in	n 2008 and 9,18	84 af in 2013.		
** Values as of 8/31/18.				
*** This water is for meeting require	d target flows.	This is not an offic	ial account	
and is what remains after subtra	cting the other	two accounts.		

Reporting / Outreach / Training:

Reporting: Staff continues to work on the Annual Monitoring Reports (the USBR report) and the Annual Monitoring Summaries (the COMB report). Staff has been providing information to USBR as requested in support of re-consultation and other operational requests.

Outreach and Training: Staff continues to work with Quiota Creek and Salsipuedes Creek watershed landowners, interested parties within the Santa Ynez Valley and the County on a variety of fisheries related issues.

Consultant Activity Summary:

HDR Fisheries Design Center (Mike Garello) – Design, reporting and oversight work for the Quiota Creek Crossings 5, 8 and 9 projects.

CACHUMA OPERATION & MAINTENANCE BOARD

BOARD MEMORANDUM

Date:	September 24, 2018
Submitted by:	Tim Robinson
Approved by:	Janet Gingras

SUBJECT: Update on Fish Passage Improvement Project – Quiota Creek Crossing 5

RECOMMENDATION:

The Board of Directors receives and files an update on the Fish Passage Improvement Project at Quiota Creek Crossing 5.

SUMMARY:

Project Description: A 59-foot prefabricated bottomless arched culvert with three wing walls is planned to replace the current concrete low flow crossing at Quiota Creek Crossing 5. The project will remove a fish passage barrier and provide for unimpeded juvenile and adult fish passage for the endangered southern steelhead to NMFS designated critical habitat upstream. The project will also improve road safety and accessibility for the landowners and the public along S. Refugio Road.

Project Location: The nearest town is Santa Ynez. Quiota Creek Crossing 5 is located off of Hwy 246 via Refugio Road 4.7 miles south of Hwy 246. The road is closed at the project site.

Contractor: Peter Lapidus Construction (PLC); the construction contractor who was awarded the competitive bid for \$649,950, was issued a Notice to Proceed on 6/11/18.

Design Engineer: Michael Garello and Shaun Bevan, HDR Fisheries Design Center.

Resident Engineer: Gino Filippin, Filippin Engineering.

County Engineers: Ron Bensel, Steven Manuel, Eric Pearson, Bert Johnson, and Jemmi Irabon.

Project Status and Timetable (as of the Board meeting date):

Status	Time
Notice to Proceed	6/11/2018
Construction start	7/23/2018
Refugio Road closure	7/23/2018
Contract Time (approximate to complete all work)*	4 months
Completion Date and Refugio Road reopened	12/5/2018
Number of construction work days (WD**) (expected)	50
Elapsed Time (WD to the Board mtg)	21
Remaining Time (WDs to complete all work)	29
Time Elapsed (WD) to Date (%)	42%
*Long contruction period due to being tied to the QC X	9 Project.
**WD: Working Days.	

Work Performed to Date: PLC has completed all of the clearing and grubbing at the site, completely removed the low flow concrete crossing and damaged culvert, excavated both foundations, formed and poured both foundations, has begun stream grading and installing rock slope protections around the bridge foundations, installed the bridge, completed the upstream channel work, and is now backfilling the arches of the bridge. ConTech fabricated the arch-bridge system at Bethlehem Construction in Wasco, CA and recently delivery and assisted in installing the bridge on 8/28/18. The COMB consultant engineer and County engineers have been overseeing the project during all phases of the construction. The pre-project condition (Figure 1) and current construction efforts (Figures 2-7) are presented as Exhibits. The bridge was successfully fabricated in the fall of 2017 and has been stored at the pre-cast location since that time at no cost to COMB.

Work Projected for Next Month: Install Backfill the bridge arches and wing walls, construct the road, and finish all streambed work.

FINANCIAL IMPACT:

A summary of the estimated project costs and available funding for the project (Table 1) and the current expenditures (Table 2) are presented below.

	F	Y 2017-19
Estimated Construction Cost		
Construction Estimate (*)	\$	836,162
Project Management and Oversight		66,196
Operating Expenses		99,755
Sub Total:	\$	1,002,113
Available Funding		
CDFW Grant (Operating and Construction)	\$	893,287
Warren Act Trust Fund FY 2017-18		36,604
Warren Act Trust Fund FY 2018-19		52,500
Sub Total:	\$	982,391
Balance to be Funded by Member Agencies	\$	19,722
(*) Includes ConTech Invoice for Bridge System.		

Table 1: Estimated project cost and available funds for the project.

Table 2: Expenditures to date for the project.			
Estimated Project Costs (all):	\$ 1,002,113		
Available Funding (all):	\$ 982,391		
Total Expenditure to Date:	FY19	FY	17+FY18
ConTech Bridge (delivered + tax) - Invoice 1:		\$	82,783
ConTech Bridge (delivered + tax) - Invoice 2:	\$ 165,565		
Geotechnical Services (Fugro) - Invoice 1:		\$	658
Geotechnical Services (Fugro) - Invoice 2:	\$ 3,670		
Resident Engineer - AECOM (fabrication) - Invoices all:		\$	8,253
Materials Testing - Krazan (fabriction) - Invoices all:		\$	5,970
PLC - Invoice 1:	\$ 158,850		
PLC - Invoice 2:	\$ 143,075		
Resident Engineer - Gino Filippin (site construction) - Invoice 1:	\$ 1,556		
Resident Engineer - Gino Filippin (site construction) - Invoice 2:	\$ 8,193		
Arborist Services (Ken Knight) - Invoice 1:	\$ 1,300		
Bird Survey (Storrer Environmental Services) - Invoice 1:	\$ 810		
Onsite Material Testing (Fugro) - Invoice 1:	\$ 5,065		
Agua-Flo - Invoice 1:	\$ 312		
Tri-Co Reproduction - all invoices:	\$ 100	\$	473
SWRCB SWPPP Fee:	\$ 221		
Project Site Surveying (Prober Land Surveying):		\$	1,450
SB County Encroachment Permit Fee:		\$	25,303
CDFW 1600 Permit Fee:		\$	4,912
Total Paid:	\$ 488,716	\$	129,804
Summary:			
% Project Expenditures through 9/6/2018:	61.7%		
Estimated Construction Costs minus Total Expenditures:	\$383,594	_	
	• •		
Available Funding minus Total Expenditures:	\$363,872		

LEGAL CONCURRENCE:

COMB legal counsel has reviewed and approved the project.

ENVIRONMENTAL COMPLIANCE:

All permits have been obtained and are being followed.

LIST OF EXHIBITS:

Construction photos:



Figure 1: Pre-project condition looking upstream.



Figure 2: ConTech bridge arrival on S. Refugio Road on 8/27/18.



Figure 3: Bridge delivery and navigating S. Refugio Road over the Quiota Creek Crossing 2 Bridge.



Figure 4: Bridge installation.



Figure 5: Bridge installation.



Figure 6: Bridge installation.



Figure 7: Completed bridge installation on 8/28/18.

CACHUMA OPERATION & MAINTENANCE BOARD

BOARD MEMORANDUM

Date:	September 24, 2018
Submitted by:	Tim Robinson
Approved by:	Janet Gingras

SUBJECT: Update on Fish Passage Improvement Project – Quiota Creek Crossing 9

RECOMMENDATION:

The Board of Directors receives and files an update on the Fish Passage Improvement Project at Quiota Creek Crossing 9.

SUMMARY:

Project Description: A 60-foot prefabricated bottomless arched culvert with three wing walls is planned to replace the current concrete low flow crossing at Quiota Creek Crossing 9. The project will remove a fish passage barrier and provide for unimpeded juvenile and adult fish passage for the endangered southern steelhead to NMFS designated critical habitat upstream. The project will also improve road safety and accessibility for the landowners and the public along S. Refugio Road.

Project Location: The nearest town is Santa Ynez. Quiota Creek Crossing 5 is located off of Hwy 246 via Refugio Road 5.2 miles south of Hwy 246. The road is closed at the project site.

Contractor: Peter Lapidus Construction (PLC); the construction contractor who was awarded the competitive bid for \$709,600, was issued a Notice to Proceed on 9/4/18.

Design Engineer: Michael Garello and Shaun Bevan, HDR Fisheries Design Center.

Resident Engineer: Gino Filippin, Filippin Engineering.

County Engineers: Ron Bensel, Steven Manuel, Eric Pearson, Bert Johnson, and Jemmi Irabon.

Project Status and Timetable (as of the Board meeting date):

Status	Time
Notice to Proceed	9/4/2018
Construction start	9/5/2018
Refugio Road closure	7/23/2018
Contract Time (approximate to complete all work)*	3 months
Completion Date and Refugio Road reopened	12/5/2018
Number of construction work days (WD**) (expected)	55
Elapsed Time (WD to the Board mtg)	13
Remaining Time (WDs to complete all work)	42
Time Elapsed (WD) to Date (%)	24%
*Long contruction period due to being tied to the QC X	5 Project.
**WD: Working Days.	

Work Performed to Date: PLC has completed all of the clearing and grubbing at the site, completely removed the low flow concrete crossing and damaged culvert, excavated both foundations, formed and poured both foundations, and has begun stream grading and installing rock slope protections around the bridge foundations. ConTech completed fabrication of the arch-bridge system at Bethlehem Construction in Wasco, CA on 9/14/18. The COMB consultant engineer and County engineers have been overseeing the project during all phases of the construction. The pre-project condition (Figure 1) and current construction efforts (Figures 2-9) are presented as Exhibits.

Work Projected for Next Month: Install the bridge on 10/3/18, then backfill the bridge arches and wing walls, and finish all streambed work.

FINANCIAL IMPACT:

A summary of the estimated project costs and available funding for the project (Table 1) and the current expenditures (Table 2) are presented below.

Tuble 1. Estimated project best and available funds for		p. ejeet.
	F	Y 2017-19
Estimated Construction Cost		
Construction Estimate (*)	\$	1,035,996
Project Management and Oversight		66,879
Operating Expenses		100,184
Sub Total:	\$	1,203,059
Available Funding		
CDFW Grant (Operating and Construction)	\$	993,121
Warren Act Trust Fund FY 2017-18		70,000
Warren Act Trust Fund FY 2018-19		122,500
Sub Total:	\$	1,185,621
Balance to be Funded by Member Agencies	\$	17,438
(*) Includes ConTech Invoice for Bridge System		

Table 1: Estimated project cost and available funds for the project.

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LEGAL CONCURRENCE:

COMB legal counsel has reviewed and approved the project.

ENVIRONMENTAL COMPLIANCE:

All permits have been obtained and are being followed.

LIST OF EXHIBITS:

Construction photos:



Figure 1: Pre-project condition looking south over the low flow crossing.



Figure 2: Bridge fabrication (arch) at Bethlehem, Wasco, CA.



Figure 3: Bridge fabrication (arch) at Bethlehem, Wasco, CA.



Figure 4: Bridge fabrication (arch) at Bethlehem, Wasco, CA.



Figure 5: Bridge fabrication (headwalls) at Bethlehem, Wasco, CA.

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Figure 6: Bridge fabrication (wing wall) at Bethlehem, Wasco, CA.



Figure 7: Stored bridge pieces at Bethlehem, Wasco, CA.



Figure 8: Removing the crossing and conducting biological surveys under the crossing.



Figure 9: Foundation preparation.

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CACHUMA OPERATION & MAINTENANCE BOARD

BOARD MEMORANDUM

Date:	September 24, 2018
Submitted by:	Tim Robinson and Scott Volan
Approved by:	Janet Gingras

SUBJECT: Lake Cachuma Oak Tree Restoration Program

SUMMARY:

Maintenance

This memorandum on the Lake Cachuma Oak Tree Restoration Program reflects maintenance completed since January, 2018 to the present (1/1/18 - 9/24/18, Table 1). Labor and expenses for the entire fiscal year (July 2017 - June 2018) as well as water usage will be tracked separately and reported as necessary as recommended by the Lake Cachuma Oak Tree Committee. COMB staff continues to rely on the Fisheries Division seasonal employees to conduct the majority of oak tree work in the field. The 2015 Lakeshore Inventory was completed and reviewed by the Lake Cachuma Oak Tree Committee on 2/25/16, which set the mitigation number for the program. The 2017 Annual Inventory and Fiscal Year 2017-2018 Financial Report has been reviewed and approved by the Lake Cachuma Oak Tree Committee with suggested recommendations for the upcoming fiscal year.

Table 1: Cachuma Oak Tree Program completed tasks since January, 2018.

	Jan 2018	Feb 2018	March 2018	April 2018	May 2018	June 2018	July 2018	Aug 2018	Sept 2018
Year 9 Oaks	Irrigated	Mulched		-	Irrigated	Weeded Roads	Irrigated		Irrigated
(2016-2017)	Weeded				Weeded		Weeded		Weeded
Year 8 Oaks		Mulched	Mulched	Mulched	Irrigated	Weeded Roads	Irrigated	Irrigated	Irrigated
(2015-2016)				Weeded	Weeded		Weeded	Weeded	Weeded
									Deer Cage
Year 7 Oaks			Mulched	Mulched		Irrigated	Irrigated	Irrigated	Irrigated
(2014-2015)			Deer Cages	Weeded		Weeded	Weeded	Weeded	Weeded
						Weeded Roads		Deer Cages	
Year 6 Oaks	Deer Cages	Deer Cages				Weeded Roads	Irrigated*		
(2010-2011)									
Year 5 Oaks						Weeded Roads	Irrigated*		
(2009-2010)									
Year 4 Oaks					Deer Cages	Weeded Roads	Irrigated*		
(2008-2009)									
Year 3 Oaks					Deer Cages	Weeded Roads	Irrigated*		
(2007-2008)									
Year 2 Oaks						Weeded Roads	Irrigated*		
(2006-2007)									
Year 1 Oaks						Weeded Roads	Irrigated*		
(2005-2006)									

Irrigation, hand weeding, and cage maintenance continues to be the focus on the newer age classes of oak trees. In the beginning of September, the Fisheries Division completed a third round of irrigation this dry season on the Year 9 age class of oak trees. Two irrigation teams are currently watering the Year 7 and Year 8 trees at Bradbury Dam and Storke Flats. Infrastructure maintenance is being conducted while watering, which includes widening cages and pounding in any wooden posts that are leaning or not structurally sound.

Watering will continue in the fall until several storms impact the basin and saturate the ground, providing enough soil moisture for the oak trees to maintain on their own. In addition, the Fisheries Division will have several loads of mulch delivered to the newer age classes of oak trees soon. Mulch will be spread during the fall and winter season.

RECOMMENDATION:

For Board information only.

LIST OF EXHIBITS:

N/A

	D MAINTENANCE BOARD	ANE		MA OPER	ACHUM	CA	
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	TO WATER DISTRICT						
99.09	BARKER PASS		260+7				
79.79	MWD YARD		386+6				
12.17	VALLEY CLUB						
212.96	E. VALLEY-ROMERO PUMP						
15.30	MWD PUMP (SWD)						
4.65	ORTEGA CONTROL						
7.01	ASEGRA RD						
0.00	CO. YARD						
0.00	_AMBERT RD						
0.00	TORO CANYON		599+2				
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17-18 CACHUMA PROJECT ALLOCATION

CACHUMA OPERATION AND MAINTENANCE BOARD WATER PRODUCTION AND WATER USE REPORT

FOR THE MONTH OF AUGUST 2018 AND THE WATER YEAR TO DATE (WYTD) ⁽¹⁾

(All in rounded Acre Feet)

SCC WATER PRODUCTION:	MONTH	WYTD
Cachuma Lake (Tec. Diversion)	2,320.9	16,882.7
Tecolote Tunnel Infiltration	13.2	940.0
Cachuma Lake (County Park)	3.3	20.6
Subtotal - Water Production	2,337.4	17,843.3
SCC WATER DELIVERIES:		
State Water Diversion	1,803.0	13,979.1
Cachuma Diversion	537.7	3,315.1
So. Coast Storage gain/(loss)	16.8	37.5
Subtotal - Water Deliveries	2,357.4	17,331.6
Total Water Production	2,337.4	17,843.3
Total Water Deliveries	2,357.4	17,331.6
Difference = Apparent Water Loss ⁽⁹⁾	(19.9)	511.7
% Apparent Water Loss	-0.85%	2.87%

SCC APPARENT WATER LOSS ALLOCATION (2)

	GWD	SB CITY	MWD	CVWD	TOTAL
CURRENT MONTH CHARGE / (ADJUSTMENT) ⁽²⁾					
M&I	(0.7)	0.0	0.0	0.0	(0.7)
Agriculture	(0.3)	0.0	0.0	0.0	(0.3)
Subtotal Cachuma Project ⁽⁹⁾	(0.9)	0.0	0.0	0.0	(0.9)
(+) State Water Project ⁽⁹⁾	(1.0)	(4.9)	(8.4)	(4.8)	(19.0)
Total ⁽⁹⁾	(1.9)	(4.9)	(8.4)	(4.8)	(20.0)
<u>WATER YEAR-TO-DATE CHARGE / (ADJUSTMENT)</u>					
M&I	9.2	0.0	0.0	37.0	46.2
Agriculture	6.8	0.0	0.0	49.1	55.9
Subtotal Cachuma Project	16.0	0.0	0.0	86.1	102.1
(+) State Water Project	17.1	169.6	198.5	24.5	409.7
Total	33.2	169.6	198.5	110.6	511.9

	CACHUMA PROJEC	T WATER CHA	RGE			
	GWD	SB CITY	MWD	CVWD	SYRID #1	TOTAL
CURRENT MONTH						
Water Usage						
M&I	390.1	0.0	0.0	0.0	3.3	393.4
Agricultural	144.3	0.0	0.0	0.0	N/A	144.3
Subtotal Project Water Use	534.4	0.0	0.0	0.0	3.3	537.7
(+) Apparent Water Loss	(0.9)	0.0	0.0	0.0	N/A	(0.9)
(+) Evaporative Loss ⁽³⁾	12.2	62.3	15.8	0.3	0.0	90.7
Total Project Water Charge	545.7	62.3	15.8	0.3	3.3	627.4
WATER VEAR TO RATE						
<u>WATER YEAR-TO-DATE</u> Water Usage						
M&I	1.487.3	0.0	0.0	289.3	20.6	1,797.3
Agricultural	1,467.3	0.0	0.0	289.3 385.7	20.0 N/A	1,797.3
Subtotal Project Water Use	2,621.5	0.0	0.0	675.1	20.6	3,317.2
(+) Apparent Water Loss	16.0	0.0	0.0	86.1	N/A	102.1
(+) Evaporative Loss ⁽³⁾	195.2	519.0	131.6	20.3	0.8	866.9
Total Project Water Charge (*)	2,832.8	519.0	131.6	781.5	21.4	4,286.2
(*) Project Water Charge is applied first to Carryo	over Water balance and then to	o Current Year W	ater Allocation			

17-18 CACHUMA PROJECT ALLOCATION

CACHUMA OPERATION AND MAINTENANCE BOARD WATER PRODUCTION AND WATER USE REPORT FOR THE MONTH OF AUGUST 2018 AND THE WATER YEAR TO DATE (WYTD) ⁽¹⁾

(All in rounded Acre Feet)

C	ACHUMA PROJECT	F WATER BAL	ANCE			
	GWD	SB CITY	MWD	CVWD	SYRID #1	TOTAL
Project Water Carryover - 10/1/2017	3,088.0	3,988.0	1,011.0	800.0	16.0	8,903.0
Transfers/Adjustment ⁽⁴⁾	30.0	0.0	0.0	0.0	0.0	30.0
(-) Project Water Charge (WYTD)	2,832.8	519.0	131.6	781.5	16.0	4,280.8
Balance Carryover Water	285.2	3,469.0	879.4	18.5	0.0	4,652.2
Current Year Allocation ⁽⁵⁾	3,728.0	3,311.0	1,060.0	1,125.0	1,060.0	10,284.0
(-) Balance of Project Water Charge (WYTD)	0.0	0.0	0.0	0.0	5.4	5.4
Net Allocation Available Before Adjustments	3,728.0	3,311.0	1,060.0	1,125.0	1,054.6	10,278.6
Adjustments to Net Allocation (WYTD)						
Carryover Balances Spilled	0.0	0.0	0.0	0.0	0.0	0.0
Surplus	0.0	0.0	0.0	0.0	0.0	0.0
State Water Exchange ⁽⁶⁾	364.0	243.0	243.0	162.0	(1,012.0)	0.0
Transfers/Adjustment ⁽⁷⁾	100.0	0.0	0.0	0.0	0.0	100.0
Balance Current Year Allocation	4,192.0	3,554.0	1,303.0	1,287.0	42.6	10,378.6
Total Cachuma Project Water Available	4,477.2	7,023.0	2,182.4	1,305.5	42.6	15,030.8

Footnotes

(1) Water Year = October 1 through September 30

(2) Based on an correspondence from Michael Jackson, dated 09/15/17, which revised the approach to the assessment for unaccounted-for water loss based on lake conditions

(3) Per USBR, evaporation is applied to Cachuma Carryover and SWP water through standard contract formula effective April 1, 2017.

(4) Adjustment for GWD November/December 2016 Evaporation Amount charged in error (+30AF).

(5) Per USBR, 40% Allocation to Member Agencies, effective 10/1/17

(6) Per SWP Exchange Agrmt GWD received 100 AF; City of SB received 67 AF; MWD received 67 AF and CVWD received 44 AF from ID#1 in August 2018.

(7) Transfer per Contract for Exchange Water with Thomas B. Bishop Company and GWD (100 AF)

(8) Memo only - State Water Deliveries to Lake Cachuma for August 2018 (Total =1230 AF): MWD 283 AF; CVWD 143 AF GWD 100 AF (Morehart 5 AF); City of S.B. 282 AF; and LaCumbre 93 AF: (Raytheon 0 AF)

(9) August 2018 - Includes a credit adjustment to Apparent Water Loss (AWL). AWL is attributed to system loss, meter discrepancies and change in water storage. COMB staff monitors trends for potential corrective action or accounting adjustment.

SUMMARY: APPARENT WATER LOSS ALLOCATION

August 2018

	Lauro &							
	Cater Loss	Ortega Toe						Rounded
	(LE + CTPL)	Drain (OTD)	Use Area 1	Use Area 2	Use Area 3	Use Area 4	Total (AF)	Total (AF)
GWD	0.5	0.0	-1.3	-1.1	0.0	0.0	-1.9	-1.9
City of SB	3.1	0.0	-0.5	-7.1	-0.3	0.0	-4.9	-4.9
MWD	2.8	0.5	-0.5	-6.5	-0.7	-4.0	-8.4	-8.4
CVWD	1.7	0.5	-0.3	-3.9	-0.4	-2.4	-4.8	-4.8
Total	8.0	1.0	-2.6	-18.5	-1.4	-6.4	-19.9	-19.9

August 2018 - Includes a credit adjustment to Apparent Water Loss (AWL). AUWL is attributed to system loss, meter discrepancies and change in water storage. COMB staff monitors trends for potential corrective action or accounting adjustment.

CACHUMA OPERATION AND MAINTENANCE BOARD WATER STORAGE REPORT

	MONTH:	August 2018		
GLEN ANNIE RESERVOIR ⁽¹⁾				
Capacity at 385' elevation: Capacity at sill of intake at 334' elevation:			518 21	AF AF
Stage of Reservoir Elevation Water in Storage			335.00 26.79	
LAURO RESERVOIR Capacity at 549' elevation: Capacity at top of intake screen, 520' elevation:			503 106.05	AF AF
Stage of Reservoir Elevation Water in Storage			546.60 541.71	
ORTEGA RESERVOIR Capacity at 460' elevation: Capacity at outlet at elevation 440':			65 0	AF AF
Stage of Reservoir Elevation Water in Storage			446.70 18.58	
CARPINTERIA RESERVOIR Capacity at 384' elevation: Capacity at outlet elevation 362':			45 0	AF AF
Stage of Reservoir Elevation Water in Storage			375.80 25.25	Feet AF
TOTAL STORAGE IN RESERVOIRS ⁽¹⁾ Change in Storage			585.54 16.76	AF AF
CACHUMA RESERVOIR Capacity at 750' elevation: Capacity at sill of tunnel 660' elevation:			184,121 24,281	AF AF
Stage of Reservoir Elevation			694.27	Feet
Water in Storage			63,378	AF
Surface Area			1,477	
Evaporation			943.5	AF
Inflow			365.0	AF
Downstream Release WR8918			7041.1	AF
Fish Release (Hilton Creek)			259.2	AF
Outlet			30.1	AF
Spill/Seismic Release			0	AF
State Water Project Water			1230.3	AF
Change in Storage			-9,003	AF
Tecolote Diversion			2,321.0	AF
Rainfall: Month: - Season:	9.77	Percent of Nor	mal:	0%

(1) The Glen Annie Reservoir is currently offline and is excluded from the <u>Total Storage in Reservoirs</u> amount.

COMB STATE WATER PROJECT ACCOUNTING - SOUTH COAST ONLY (Does not include SYRWCD, ID#1 or exchange water)

	Total			CVV	VD					M١	VD					CITY	OF SB					GW	'D				LCM	WC			RSYS			MLC	
Month	Delivered to Lake per CCWA	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake		Delivered to SC (-)	Evap / Spill (-)	Stored in Lake	Delivered to Lake (+)		Stored in Lake	Delivered to Lake (+)	to SC S	Stored in Lake
2017 Bal. Frwd							504						809						2098						747				0			11			1
January	1437	219	0	1	2	0	720	357	58	3	3	0	1102	357	273	4	8	10	2179	467	58	0	3	(10)	1144	35	10	2	23	0	0	11	2	2	1
February	1250	196	96	4	7	0	809	296	25	2	10	0	1361	296	197	5	21	0	2252	445	50	0	11	0	1528	15	29	2	7	0	0	11	2	2	1
March	990	135	180	4	7	0	753	226	76	2	12	0	1498	226	112	7	20	0	2340	339	190	0	13	0	1664	59	34	0	33	4	4	11	1	1	1
April	634	96	134	17	11	0	686	144	180	23	22	0	1417	144	210	21	35	0	2218	217	567	3	25	0	1286	29	55	1	6	3	3	11	1	1	1
May	1165	168	372	39	14	0	429	258	229	24	29	0	1392	258	80	49	46	0	2301	388	520	3	27	0	1124	86	63	0	29	4	3	12	3	4	0
June	1026	153	377	13	10	0	182	230	293	10	33	0	1286	230	252	17	55	0	2208	345	958	2	27	0	483	60	34		54	4	4	12	4	4	0
July	1151	165	327	12	5	0	3	254	321	12	34	0	1174	255	247	24	58	0	2134	383		3	13	0	0	84	74		62	4	4	12	6	6	0
August	1006	144	232	0	0	85	0	223	333	0	37	71	1098	223	210		67	119	2199	334	345	0	0	11	0	74	92		42	4	4	12	4	4	0
September	1190	175	153	22	0	0	0	263	288	36	39	0	997	263	187	16	78	0	2181	395		3	0	0	0	88	21		108	0	0	12	6	6	0
October	1048	147	139	8	0	0	0	244	348	19	15	0	860	244	352	13	32	0	2028	367	365	2	0	0	0	46	81	2	71	0	0	12	0	0	0
November	369	0	0	0	(0)	0	0	96	265	32	7	0	652	96	391	29	16	0	1688	145		2	(0)	0	0	32	96	1	7	0	0	12	0	0	0
December	1281	0	0	0	(0)	0	0	354	310	61	4	0	630	298	273	36	10	0	1667	532	526	6	0	0	0	68	12	0	62	22	22	12	7	7	0
Total	12547	1598	2010	120	56	85	0	2945	2726	225	244	71	630	2890	2783	222	445	129	1667	4357	4964	24	117	1	0	676	601	13	62	45	44	12	36	37	0

(*) Adj / Notes:

January 2017 - GWD transferred 18.12 AF SWP water to City of SB per overlap agreement

August 2017 - Includes credit adjustment for water loss charged to South Coast Member Units (Mar - Jul) based email from Michael Jackson, dated 09/15/17, which revised the approach to the assess for unaccounted-for water loss based on lake conditions.

	Total			CV	ND					M	ND					CITY	OF SB					GW	D				LCM	IWC			RSYS		(/	MLC	
Month	Delivered to Lake per CCWA	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Loss (-)	Evap / Spill (-)	Adj (*) (+/-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Evap / Spill (-)	Stored in Lake	Delivered to Lake (+)	Delivered to SC (-)	Stored in Lake	Delivered to Lake (+)		Stored in Lake
2018																																			
Bal. Frwd							0						630						1667						0				62			12			0
January	1275	201	31	3	(0)	0	167	270	219	18	4	0	659	301	346	16	11	0	1595	452	387	2	(0)	0	62	49	30	0	80	0	0	12	2	2	0
February	1142	169	20	3	1	0	311	253	257	35	5	0	614	253	367	29	13	0	1440	380	146	3	1	0	293	85	52	1	113	0	0	12	2	2	0
March	976	70	6	1	2	0	372	255	98	14	4	0	753	254	291	19	10	0	1373	381	9	1	2	0	663	10	15	1	107	4	4	12	2	2	0
April	1218	0	47	2	4	0	320	287	225	5	9	0	801	287	496	8	16	0	1140	636	196	0	8	0	1094	0	29	1	77	5	5	12	3	3	0
May	1255	190	154	12	5	0	338	309	290	23	13	0	784	285	491	23	18	0	892	463	400	2	18	0	1137	0	22	1	54	5	5	12	3	3	0
June	1157	175	174	6	6	0	327	263	310	10	15	0	713	264	459	10	17	0	671	395	791	2	21	0	719	50	51	1	51	5	5	12	5	5	0
July ⁽¹⁾	1160	170	239	-6	8	0	256	256	425	-11	16	0	538	256	682	-9	15	0	239	384	950	-2	17	0	139	86	91	1	45	3	3	12	5	5	0
August	1230	143	258	-5	6	0	140	283	431	-8	12	0	387	282	477	-5	5	0	44	424	560	-1	3	0	1	93	72	1	65	0	0	12	5	5	0
September																																			
October																																			
November																																	1		
December																																			
Total	9413	1118	928	16	33	0	140	2176	2255	86	79	0	387	2182	3608	91	106	0	44	3515	3438	7	69	0	1	373	362	8	65	22	22	12	27	27	0

(*) Adj / Notes:

July 2018 - Includes a credit adjustment to Apparent Water Loss (AWL). AWL is attributed to system loss, meter discrepancies and change in water storage. COMB staff monitors trends for potential corrective action or accounting adjustment.

Total SC Storage at month end (AF): 571

Total Storage at month end (AF): 648

CACHUMA PROJECT - CONTRACT #I75R-1802

Contract Year: 10/1/17 to: 9/30/18

Contract Enti	ity:	Goleta Water Dis Last updated by	18				CARF	RYOVER WATE	R		CURRENT Y		CATION
			тот	AL WATER US	SED		WATE	R USE CHARG	ED		WATER U	JSE CHAR	GED
	Carryover Balance	Approved Allocation	A	cre-feet				Г	Allocati	on	Allocatior	ı	
Month	Prior Yr	Curr Yr	M & I	Agr	Total	Evap	Used	Total	M & I	Agr	M & I	Agr	Total
Oct	3,088.0	3,728.0	570.6	170.4	741.1	45.1	741.1	786.2	605.4	180.8	0.0	0.0	0.0
Nov			434.3	160.6	595.0	17.8	595.0	612.8	447.3	165.5	0.0	0.0	0.0
Dec			102.2	35.9	138.1	11.2	138.1	149.3	110.5	38.8	0.0	0.0	0.0
Jan			0.0	42.6	42.6	10.4	42.6	53.0	0.0	53.0	0.0	0.0	0.0
Feb			0.0	98.0	98.0	12.2	98.0	110.2	0.0	110.2	0.0	0.0	0.0
Mar			0.0	11.6	11.6	9.6	11.6	21.2	0.0	21.2	0.0	0.0	0.0
Apr			0.0	79.2	79.2	16.1	79.2	95.2	0.0	95.2	0.0	0.0	0.0
May			0.0	126.0	126.0	19.4	126.0	145.4	0.0	145.4	0.0	0.0	0.0
Jun			0.0	117.2	117.2	19.9	117.2	137.0	0.0	137.0	0.0	0.0	0.0
Jul			0.0	155.3	155.3	21.4	155.3	176.7	0.0	176.7	0.0	0.0	0.0
Aug			389.4	144.0	533.4	12.2	533.4	545.7	398.3	147.3	0.0	0.0	0.0
Sep			-	-	-	-	-	-	-	-	-	-	-
Total	3,088.0	3,728.0	1,496.6	1,140.9	2,637.5	195.2	2,637.5	2,832.8	1,561.6	1,271.2	0.0	0.0	0.0

	CONV	CONVERSIONS (M&I AND AG SPLIT)												
	CARRYOVER	WATER		CURR YR ALLO	DCATION									
Month	M & I	Agr		M & I	Agr									
Oct	-	-		-	-									
Nov	-	-		-	-									
Dec	-	-		-	-									
Jan	-	-		-	-									
Feb	-	-		-	-									
Mar	-	-		-	-									
Apr	-	-		-	-									
May	-	-		-	-									
Jun	-	-		-	-									
Jul	(5.4)	5.4		-	-									
Aug	(147.3)	147.3		-	-									
Sep	-	-		-	-									

	SCHED	ULE AND REV	ISIONS		SCHEDUL	E AND REV	ISIONS
			Allocati	on	Allocati	on	
		Total	M & I	Agr	M & I	Agr	Total
Month	Begin Bal	3,088.0	1,976.0	1,112.0	2,609.0	1,119.0	3,728.0
Oct	_						-
Nov							
Dec							-
Jan							-
Feb							-
Mar							-
Apr	Bishop Ranch Exch (+100AF)		-		100.0	-	100.0
May	ID #1 Exch (+ 26AF)				11.2	14.8	26.0
Jun	ID#1 Exch (+104AF), Evap Adj (1)	30.0	23.6	6.4	48.9	55.1	104.0
Jul	ID #1 Exch (+134AF)				61.6	72.4	134.0
Aug	ID #1 Exch (+100AF)				43.0	57.0	100.0
Sep							

	BALANCE - CAR	RYOVE	RWATER		BALANCE	- CURR YR	ALLOC
		I	Allocatio	on	Allocat	ion	
Month	To	tal	M & I	Agr	M & I	Agr	Total
Oct	2,	301.8	1,370.6	931.2	2,609.0	1,119.0	3,728.0
Nov	1,	689.0	923.3	765.7	2,609.0	1,119.0	3,728.0
Dec	1,	539.7	812.8	726.9	2,609.0	1,119.0	3,728.0
Jan	1,	486.7	812.8	673.9	2,609.0	1,119.0	3,728.0
Feb	1,	376.5	812.8	563.7	2,609.0	1,119.0	3,728.0
Mar	1,	355.3	812.8	542.5	2,609.0	1,119.0	3,728.0
Apr	1,	260.1	812.8	447.3	2,709.0	1,119.0	3,828.0
May	1,	114.7	812.8	301.9	2,720.2	1,133.8	3,854.0
Jun	1,	007.7	836.4	171.3	2,769.1	1,188.9	3,958.0
Jul		830.9	830.9	-	2,830.7	1,261.3	4,092.0
Aug		285.2	285.2	-	2,873.7	1,318.3	4,192.0
Sep							

TOTAL CACHUMA PROJECT BALANCE (CARRYOVER + CURRENT YR ALLOCATION) 4,477.2

(1) June Schedules and Revisions includes adjustment for November/December 2016 Evaporation Amount charged in error (+30AF).

CACHUMA PROJECT - CONTRACT #I75R-1802

Contract Year: 10/1/17 to: 9/30/18

Contract Entit	Contract Entity: City of Santa Barbara Last updated by C.O.M.B. 08/31/18			CARRYOVER WATER					CURRENT YEAR ALLOCATION					
				TOTA	L WATER USE	D		WATE	R USE CHAR	GED		WATER USE CHARGED		
	Carryover Balance	Approved Allocation		Acr	e-feet				 T	Allocation	1	Allocatior	ı	
Month	Prior Yr	Curr Yr		M & I	Agr	Total	Evap	Used	Total	M & I		M & I		Total
Oct	3,988.0	3,311.0		0.0	0.0	0.0	58.3	0.0	58.3	58.3	0.0	0.0	0.0	0.0
Nov				0.0	0.0	0.0	30.4	0.0	30.4	30.4	0.0	0.0	0.0	0.0
Dec				0.0	0.0	0.0	25.9	0.0	25.9	25.9	0.0	0.0	0.0	0.0
Jan				0.0	0.0	0.0	26.1	0.0	26.1	26.1	0.0	0.0	0.0	0.0
Feb				0.0	0.0	0.0	31.5	0.0	31.5	31.5	0.0	0.0	0.0	0.0
Mar				0.0	0.0	0.0	26.5	0.0	26.5	26.5	0.0	0.0	0.0	0.0
Apr				0.0	0.0	0.0	45.0	0.0	45.0	45.0	0.0	0.0	0.0	0.0
May				0.0	0.0	0.0	60.5	0.0	60.5	60.5	0.0	0.0	0.0	0.0
Jun				0.0	0.0	0.0	69.3	0.0	69.3	69.3	0.0	0.0	0.0	0.0
Jul				0.0	0.0	0.0	83.3	0.0	83.3	83.3	0.0	0.0	0.0	0.0
Aug				0.0	0.0	0.0	62.3	0.0	62.3	62.3	0.0	0.0	0.0	0.0
Sep				-	-	-	-	-	-	-	-	-	-	-
Total	3,988.0	3,311.0		-	-	-	519.0	-	519.0	519.0	-	-	-	-

	CON	CONVERSIONS (M&I AND AG SPLIT)									
	CARRYOVE	R WATER		CURR YR A	LLOCATION						
Month	M & I	Agr		M & I	Agr						
Oct	-	-		-	-						
Nov	-	-		-	-						
Dec	-	-		-	-						
Jan	-	-		-	-						
Feb	-	-		-	-						
Mar	-	-		-	-						
Apr	-	-		-	-						
May	-	-		-	-						
Jun	-	-		-	-						
Jul	-	-		-	-						
Aug	-	-		-	-						
Sep	-	-		-	-						

	SCHED	ULE AND REV	ISIONS		SCHEDULE A	SCHEDULE AND REVISIONS		
			Allocatior	ı	Allocation			
		Total	M & I		M & I		Total	
Month	Begin Bal	3,988.0	3,988.0		3,311.0		3,311.0	
Oct	-							
Nov								
Dec								
Jan								
Feb								
Mar								
Apr								
May	ID #1 Exchange (+17AF)				17.0		17.0	
Jun	ID #1 Exchange (+70AF)				70.0		70.0	
Jul	ID #1 Exchange (+89AF)				89.0		89.0	
Aug	ID #1 Exchange (+67AF)				67.0		67.0	
Sep	U				-			

	BALANCE - CARRYOV	ER WATER		BALANCE - CURR YR ALLOC			
		Allocati	on	Allocation			
Month	Total	M & I		M & I		Total	
Oct	3,929.7	3,929.7	-	3,311.0		3,311.0	
Nov	3,899.3	3,899.3	-	3,311.0		3,311.0	
Dec	3,873.4	3,873.4	-	3,311.0		3,311.0	
Jan	3,847.4	3,847.4	-	3,311.0		3,311.0	
Feb	3,815.8	3,815.8	-	3,311.0		3,311.0	
Mar	3,789.3	3,789.3	-	3,311.0		3,311.0	
Apr	3,744.4	3,744.4	-	3,311.0		3,311.0	
May	3,683.9	3,683.9	-	3,328.0		3,328.0	
Jun	3,614.6	3,614.6	-	3,398.0		3,398.0	
Jul	3,531.3	3,531.3	-	3,487.0		3,487.0	
Aug	3,469.0	3,469.0	-	3,554.0		3,554.0	
Sep							

TOTAL CACHUMA PROJECT BALANCE (CARRYOVER + CURRENT YR ALLOCATION 7,023.0

CACHUMA PROJECT - CONTRACT #I75R-1802

Contract Year: 10/1/17 to: 9/30/18

Contract Entity:

Carpinteria Valley Water District

	Last updated by C.O.M.B. 08/31/18							CARRYOVER WATER					CURRENT YEAR ALLOCATION		
				TOTAL	WATER CHAI	RGED		WATE	R USE CHARG	iED		WATER I	JSE CHARG	ED	
	Carryover Balance	Approved Allocation		Ac	re-feet					Allocatio	n	Allocatior	1		
<u>Month</u>	Prior Yr	Curr Yr		M & I	Agr	Total	Evap	Used	Total	M & I	Agr	M & I	Agr	Total	
Oct	800.0	1,125.0		85.9	121.2	207.1	11.7	207.1	218.8	90.7	128.1	0.0	0.0	0.0	
Nov				125.0	155.3	280.3	4.5	280.3	284.8	127.0	157.8	0.0	0.0	0.0	
Dec				115.4	158.4	273.7	2.0	273.7	275.7	116.2	159.5	0.0	0.0	0.0	
Jan				0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	
Feb				0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0	0.0	
Mar				0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	
Apr				0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0	0.0	
May				0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.0	0.0	
Jun				0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.4	0.0	0.0	0.0	
Jul				0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.4	0.0	0.0	0.0	
Aug				0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.0	0.0	
Sep				-	-	-		-	-	-	-	-	-	-	
Total	800.0	1,125.0		326.3	434.9	761.1	20.3	761.1	781.5	334.0	447.5	-	-	-	

	CO	CONVERSIONS (M&I AND AG SPLIT)										
	CARRYOV	ER WATER		CURR YR A	LLOCATION							
<u>Month</u>	M & I	Agr		M & I	Agr							
Oct	-	-		-	-							
Nov	-	-		-	-							
Dec	-	-		-	-							
Jan	-	-		-	-							
Feb	-	-		-	-							
Mar	-	-		-	-							
Apr	-	-		-	-							
May	-	-		-	-							
Jun	-	-		-	-							
Jul	-	-		-	-							
Aug	-	-		-	-							
Sep	-	-		-	-							

	SCHED	ULE AND REV	ISIONS		SCHEDULE AND REVISIONS			
			Allocatio	on	Allocatio			
		Total	M & I	Agr	M & I	Agr	Total	
Month	Begin Bal	800.0	340.0	460.0	518.0	607.0	1,125.0	
Oct							-	
Nov							-	
Dec							-	
Jan								
Feb							-	
Mar							-	
Apr								
May	ID #1 Exchange (+12AF)				5.2	6.8	12.0	
Jun	ID #1 Exchange (+46AF)				21.6	24.4	46.0	
Jul	ID #1 Exchange (+60AF)				27.6	32.4	60.0	
Aug	ID #1 Exchange (+44AF)				18.9	25.1	44.0	
Sep					1010	2011	-	

	BALANCE	- CARRYOVE	RWATER		BALANCE	- CURR YR	ALLOC
					Allocation		
Month		Total	M & I	Agr	M & I	Agr	Total
Oct		581.2	249.3	331.9	518.0	607.0	1,125.0
Nov		296.4	122.2	174.2	518.0	607.0	1,125.0
Dec		20.7	6.0	14.7	518.0	607.0	1,125.0
Jan		20.6	6.0	14.5	518.0	607.0	1,125.0
Feb		20.4	6.0	14.4	518.0	607.0	1,125.0
Mar		20.3	6.0	14.2	518.0	607.0	1,125.0
Apr		20.0	6.0	14.0	518.0	607.0	1,125.0
May		19.7	6.0	13.7	523.2	613.8	1,137.0
Jun		19.3	6.0	13.3	544.8	638.2	1,183.0
Jul		18.9	6.0	12.8	572.4	670.6	1,243.0
Aug		18.5	6.0	12.5	591.3	695.7	1,287.0
Sep							

TOTAL CACHUMA PROJECT BALANCE (CARRYOVER + CURRENT YR ALLOCATION 1,305.5

CACHUMA PROJECT - CONTRACT #I75R-1802

Contract Year: 10/1/17 to: 9/30/18

Contract Entity: Montecito Water District Last updated by C.O.M.B. 08/31/18			CARRYOVER WATER					CURRENT YEAR ALLOCATION					
			1	TOTAL WATE	RUSED		WAT	ER USE CHAR	GED		WATER USE CHARGED		
	Carryover Balance	Approved Allocation		Acre-feet				1	Allocatio	n	Allocation	n	
Month	Prior Yr	Curr Yr	M & I	Agı	· Total	Evap	Used	Total	M & I	Agr	M & I	Agr	Total
Oct	1,011.0	1,060.0	0.	0 0	.0 0.0	14.8	-	14.78	11.6	3.2	0.0	0.0	0.0
Nov			0.	D 0	.0 0.0	7.7	-	7.7	6.0	1.7	0.0	0.0	0.0
Dec			0.	0 0	.0 0.0	6.6	-	6.6	5.2	1.4	0.0	0.0	0.0
Jan			0.	0 0	.0 0.0	6.6	-	6.6	5.2	1.4	0.0	0.0	0.0
Feb			0.	0 0	.0 0.0	8.0	-	8.0	6.3	1.7	0.0	0.0	0.0
Mar			0.	D 0	.0 0.0	6.7	-	6.7	5.3	1.4	0.0	0.0	0.0
Apr			0.	0 0	.0 0.0	11.4	-	11.4	9.0	2.4	0.0	0.0	0.0
May			0.	0 0	.0 0.0	15.3		15.3	12.1	3.3	0.0	0.0	0.0
Jun			0.	D 0	.0 0.0	17.6	-	17.6	13.8	3.8	0.0	0.0	0.0
Jul			0.	0 0	.0 0.0	21.1	-	21.1	16.6	4.5	0.0	0.0	0.0
Aug			0.	0 0	.0 0.0	15.8		15.8	12.4	3.4	0.0	0.0	0.0
Sep			-	-	-	-	-	-	-	-	-	-	-
Total	1,011.0	1,060.0	-	-	-	131.6	-	131.6	103.3	28.2	-	-	-

	CO	NVERSIONS	(M&	I AND AG SPI	_IT)
	CARRYO	/ER WATER		CURR YR A	ALLOCATION
Month	M & I	Agr		M & I	Agr
Oct	-	-		-	-
Nov	-	-		-	-
Dec	-	-		-	-
Jan	-	-		-	-
Feb	-	-		-	-
Mar	-	-		-	-
Apr	-	-		-	-
May	-	-		-	-
Jun	-	-		-	-
Jul	-	-		-	-
Aug	-	-		-	-
Sep	-	-		-	-

	SCHED	ULE AND REV	ISIONS		SCHEDULE AND REVISIONS			
			Allocatio	on	Allocatio			
		Total	M & I	Agr	M & I	Agr	Total	
Month	Begin Bal	1,011.0	794.0	217.0	986.0	74.0	1,060.0	
Oct					-	-	-	
Nov					-	-	-	
Dec					-	-	-	
Jan					-	-	-	
Feb					-	-	-	
Mar					-	-	-	
Apr					-	-	-	
May	ID #1 Exchange (+17AF)				7.3	9.7	17.0	
Jun	ID #1 Exchange (+70AF)				32.9	37.1	70.0	
Jul	ID #1 Exchange (+89AF)				40.9	48.1	89.0	
Aug	ID #1 Exchange (+67AF)				28.8	38.2	67.0	
Sep					-	-	-	

	BALANCE	- CARRYOVE		BALANCE	- CURR YR	ALLOC	
			Allocatio	on	Allocatio	on	
Month		Total	M & I	Agr	M & I	Agr	Total
Oct		996.2	782.4	213.8	986.0	74.0	1,060.0
Nov		988.5	776.3	212.2	986.0	74.0	1,060.0
Dec		982.0	771.2	210.8	986.0	74.0	1,060.0
Jan		975.3	766.0	209.3	986.0	74.0	1,060.0
Feb		967.4	759.7	207.6	986.0	74.0	1,060.0
Mar		960.6	754.4	206.2	986.0	74.0	1,060.0
Apr		949.2	745.5	203.7	986.0	74.0	1,060.0
May		933.9	733.4	200.5	993.3	83.7	1,077.0
Jun		916.3	719.7	196.7	1,026.2	120.8	1,147.0
Jul		895.2	703.1	192.1	1,067.1	168.9	1,236.0
Aug		879.4	690.7	188.8	1,095.9	207.1	1,303.0
Sep							

TOTAL CACHUMA PROJECT BALANCE (CARRYOVER + CURRENT YR ALLOCATION) 2,182.4

CACHUMA PROJECT - CONTRACT #I75R-1802

Contract Year: 10/1/17 to: 9/30/18

Santa Ynez River Water Conservation District, ID#1 Contract Entity:

	Last updated by C.O.M.B.	08/31/18				CARRY	YOVER WATE	R		CURRENT Y	EAR ALLOC	ATION
		TOTAI	WATER US	ED		WATER	USE CHARGE	ED		WATER L	JSE CHARGI	ED
	Carryover Approved Balance Allocation							Allocation		Allocation	1	
	Prior Yr Curr Yr	M & I	Agr	Total	Evap	Used	Total	M & I	Agr	M & I	Agr	Total
	16.0 1,060.0	2.4	0.0	2.4	0.2	2.4	2.6	2.6	0.0	0.0	0.0	0.0
	· · · ·	1.2	0.0	1.2	0.1	1.2	1.3	1.3	0.0	0.0	0.0	0.0
		2.4	0.0	2.4	0.1	2.4	2.4	2.4	0.0	0.0	0.0	0.0
		0.9	0.0	0.9	0.1	0.9	1.0	1.0	0.0	0.0	0.0	0.0
		1.3	0.0	1.3	0.1	1.3	1.4	1.4	0.0	0.0	0.0	0.0
		0.2	0.0	0.2	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0
		1.9	0.0	1.9	0.1	1.9	2.0	2.0	0.0	0.0	0.0	0.0
		2.0	0.0	2.0	0.1	2.0	2.1	2.1	0.0	0.0	0.0	0.0
		2.0	0.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0
		3.1	0.0	3.1	0.0	1.0	1.0	1.0	0.0	2.1	0.0	2.1
		3.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	3.3	0.0	3.3
		-	-	-		-	-	-	-	-	-	-
_												
	16.0 1,060.0	20.6	0.0	20.6	0.8	15.2	16.0	16.0	0.0	5.4	0.0	5.4

CONVERSIONS (M&I AND AG SPLIT)										
CARRYOVER	WATER		CURR YR A	LLOCATION						
M & I	Agr		M & I	Agr						
2.6	(2.6)		-	-						
1.3	(1.3)		-	-						
2.4	(2.4)		-	-						
1.0	(1.0)		-	-						
1.4	(1.4)		-	-						
0.2	(0.2)		-	-						
2.0	(2.0)		-	-						
2.1	(2.1)		-	-						
2.0	(2.0)		-	-						
1.0	(1.0)		(40.7)	40.7						
-	-		(158.5)	158.5						
-	-		-	-						

	SCHE	DULE AND REV	/ISIONS		SCHEDUL	E AND REV	ISIONS
			Allocation	1	Allocatio	n	
		Total	M & I	Agr	M & I	Agr	Total
Month	Begin Bal	16.0	0.0	16.0	710.0	350.0	1,060.0
Oct					-	-	-
Nov					-	-	-
Dec						-	-
Jan						-	-
Feb					-	-	-
Mar					-	-	-
Apr					-	-	-
May	ID #1 Exchange (-72AF)				(36.0)	(36.0)	(72.0)
Jun	ID #1 Exchange (-290AF)				(136.3)	(153.7)	(290.0)
Jul	ID #1 Exchange (-372AF)				(171.0)	(201.0)	(372.0)
Aug	ID #1 Exchange (-278AF)				(119.5)	(158.5)	(278.0)
Sep					-	-	-

	BALA	NCE - CARRYOVE	R WATEF		BALANCE	- CURR YR	ALLOC
	County Parks	Г	Allocatio	n	Allocatio	on	
Month	Usage (AF)	Total	M & I	Agr	M & I	Agr	Total
Oct	2.4	13.4	-	13.4	710.0	350.0	1,060.0
Nov	1.2	12.0	-	12.0	710.0	350.0	1,060.0
Dec	2.4	9.6	-	9.6	710.0	350.0	1,060.0
Jan	0.9	8.6	-	8.6	710.0	350.0	1,060.0
Feb	1.3	7.2	-	7.2	710.0	350.0	1,060.0
Mar	0.2	7.0	-	7.0	710.0	350.0	1,060.0
Apr	1.9	5.1	-	5.1	710.0	350.0	1,060.0
May	2.0	3.0	-	3.0	674.0	314.0	988.0
Jun	2.0	1.0	-	1.0	537.7	160.3	698.0
Jul	3.1		-	-	323.9	-	323.9
Aug	3.3		-	-	42.6	-	42.6
Sep							

TOTAL CACHUMA PROJECT BALANCE (CARRYOVER + CURRENT YR ALLOCATION 42.6

*NOTE:

Month Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Total

CACHUMA PROJECT - CONTRACT #I75R-1802

Contract Year: 10/1/17 to: 9/30/18

Contract Entity:

Santa Barbara Co. Water Agency Last updated by C.O.M.B. 08/31/18

		Last updated by	C.O.M.B. 08/31/1	8				CARR	YOVER WATE	R		CURRENT YEA	AR ALLOCA	TION
			Т	OTAL WATER	RUSED			WATER	USE CHARG	ED		WATER US	E CHARGE	D
	Carryover Balance	Approved Allocation		Acre-feet						Alloca	ion	Allocation		
Month	Prior Yr	Curr Yr	Use %	M & I	Agr	Total	Evap	Div	Total	M & I	Agr	M & I	Agr	Total
Oct	8,903.0	10,284.0	0.1	658.9	291.7	950.6	130.2	950.6	1,080.8	768.7	312.1	0.0	0.0	0.0
Nov			0.0	560.6	315.9	876.5	60.5	876.5	937.0	612.1	324.9	0.0	0.0	0.0
Dec			0.0	219.9	194.3	414.2	45.7	414.2	459.9	260.1	199.7	0.0	0.0	0.0
Jan			0.0	0.9	0.0	43.5	43.3	43.5	86.8	32.2	54.5	0.0	0.0	0.0
Feb			0.0	1.3	98.0	99.3	52.0	99.3	151.3	39.2	112.1	0.0	0.0	0.0
Mar			0.0	0.2	11.6	11.8	42.9	11.8	54.7	32.0	22.8	0.0	0.0	0.0
Apr			0.0	1.9	79.2	81.0	72.8	81.0	153.8	55.9	97.9	0.0	0.0	0.0
May			0.0	2.0	126.0	128.1	95.6	128.1	223.7	74.7	149.0	0.0	0.0	0.0
Jun			0.0	2.0	117.2	119.1	107.1	119.1	226.2	85.1	141.2	0.0	0.0	0.0
Jul			0.0	3.1	155.3	158.4	126.3	156.3	282.6	100.8	181.7	2.1	-	2.1
Aug			0.0	392.7	144.0	536.7	90.7	533.4	624.1	473.0	151.1	3.3	-	3.3
Sep			-	-	-	-	-	-	-	-	-	-	-	-
Total	8,903.0	10,284.0	0.2	1,843.5	1,575.8	3,419.3	866.9	3,413.9	4,280.8	2,533.9	1,746.9	5.4	0.0	5.4

	0	ONVERSION	١S	(M&I AND AG)	
	CARRYOVE	R WATER		CURR YR ALLO	OCATION
Month	M & I	Agr		M & I	Agr
Oct	2.6	(2.6)		-	-
Nov	1.3	(1.3)		-	-
Dec	2.4	(2.4)		-	-
Jan	1.0	(1.0)		-	-
Feb	1.4	(1.4)		-	-
Mar	0.2	(0.2)		-	-
Apr	2.0	(2.0)		-	-
May	2.1	(2.1)		-	-
Jun	2.0	(2.0)		-	-
Jul	(4.5)	4.5		(40.7)	40.7
Aug	(147.3)	147.3		(158.5)	158.5
Sep	-	-		-	-

	SCHEDUL	E AND REVIS	SIONS		SCHEDULE	AND REVIS	IONS
		r					
			Allocat	tion	Allocation		
		Total	M & I	Agr	M & I	Agr	Total
Month	Begin Bal	8,903.0	7,098.0	1,805.0	8,134.0	2,150.0	10,284.0
Oct		-	-	-	-	-	-
Nov		-	-	-	-	-	-
Dec		-	-	-	-	-	-
Jan		-	-	-	-	-	-
Feb		-	-	-	-	-	-
Mar		-	-	-	-	-	-
Apr		-	-	-	100.0	-	100.0
May		-	-	-	4.7	(4.7)	-
Jun		30.0	23.6	6.4	37.1	(37.1)	-
Jul		-	-	-	48.1	(48.1)	-
Aug		-	-	-	38.2	(38.2)	-
Sep		-	-	-	-	-	-

	BALANCE -	CARRYOVER	WATER		BALANCE -	CURR YR A	LLOC
	County Parks		Allocat	ion	Allocation	ı	
Month	Usage (AF)	Total	M & I	Agr	M & I	Agr	Total
Oct	2.4	7,822.2	6,332.0	1,490.3	8,134.0	2,150.0	10,284.0
Nov	1.2	6,885.3	5,721.1	1,164.1	8,134.0	2,150.0	10,284.0
Dec	2.4	6,425.4	5,463.4	961.9	8,134.0	2,150.0	10,284.0
Jan	0.9	6,338.6	5,432.2	906.4	8,134.0	2,150.0	10,284.0
Feb	1.3	6,187.3	5,394.3	792.9	8,134.0	2,150.0	10,284.0
Mar	0.2	6,132.6	5,362.6	770.0	8,134.0	2,150.0	10,284.0
Apr	1.9	5,978.8	5,308.7	670.1	8,234.0	2,150.0	10,384.0
May	2.0	5,755.1	5,236.1	519.0	8,238.7	2,145.4	10,384.0
Jun	2.0	5,558.8	5,176.6	382.2	8,275.8	2,108.3	10,384.0
Jul	3.1	5,276.3	5,071.3	205.0	8,281.0	2,100.9	10,381.9
Aug	3.3	4,652.2	4,450.9	201.3	8,157.5	2,221.1	10,378.6
Sep		,	,		-,	,	-,

TOTAL CACHUMA PROJECT BALANCE (CARRYOVER + CURRENT YR ALLOCATION)

CACHUMA DAILY OPERATIONS

Month & Year:	Septembe 2018		
Time of Observations:	0830	Evaporation Pan Factor:	76%

	Beginn	ing Storage:	63,378										Rele	ases			
Day	Elevation	Storage	Change	Surface Area	Rai	nfall	Evapo	ration		CCWA Inflow	Park Diversion	South Coast	Hilton Creek	WR 89-18	Outlet	Spillway	Computed Inflow
	ft	acre-feet	acre-feet	acres	inches	acre-feet	inches	acre-feet		acre-feet		acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
1	694.18	63,246	(133)	1,475	-		0.260	24.3		41.3		54.9	7.4	101.0			13.5
2	694.09	63,113	(133)	1,473	-		0.230	21.5		41.3		54.0	7.4	98.0			6.8
3	694.00	62,980	(133)	1,471	-		0.210	19.6		41.3		54.6	7.4	101.0			8.5
4	693.92	62,862	(118)	1,469	-		0.120	11.2		41.0		54.7	7.3	98.0			12.2
5	693.84	62,744	(118)	1,467	-		0.200	18.6		41.6		54.8	7.3	80.0			1.1
6	693.77	62,641	(103)	1,465	-		0.200	18.6		41.3		54.6	7.3	60.0			(4.1
7	693.71	62,552	(89)	1,464	-		0.350	32.5		41.3		54.0	7.4	60.0			24.0
8	693.65	62,464	(89)	1,463	-		0.160	14.8		41.3		54.0	7.4	60.0			6.4
9	693.59	62,376	(88)	1,461	-		0.360	33.3		41.3		54.0	7.4	43.0			8.6
10	693.55	62,318	(58)	1,460	-		0.240	22.2		41.3		53.9	7.4	23.0			7.1
11	693.51	62,260	(58)	1,459	-		0.340	31.4		41.3		54.6	7.4	11.0			5.1
12	693.49	62,231	(29)	1,459	-		0.200	18.5		41.3		52.9	7.4	1.0	3.0		12.4
13	693.43	62,144	(87)	1,458	-		0.270	24.9		41.3		78.5	7.4		3.0		(14.6
14	693.39	62,086	(58)	1,457	-		0.200	18.5		41.3		85.3	7.4		3.0		14.9
15	693.35	62,028	(58)	1,456			0.230	21.2		41.3		64.5	7.3		3.0		(3.4
16	693.32	61,984	(44)	1,455			0.320	29.5		41.2		53.7	7.4		3.0		8.8
17	693.29	61,940	(44)	1,454			0.230	21.2		41.2		55.5	7.4		3.0		2.3
18	693.26	61,897	(44)	1,454			0.190	17.5		41.2		52.2	7.4		3.0		(4.7
19	693.24	61,868	(29)	1,453			0.180	16.6		41.2		63.7	7.4		3.0		20.4
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	Τ
29																	
30																	
	TOTAL	s	-1510		-	-	4.490	415.6	-	784.3	-	1,104.4	140.2	736.0	24.0	-	125.6
Park	Usage				Rain %		Yr. Total										



Santa Barbara County Parks Division, Cachuma Lake Recreation Area

Summary of Aquatic Invasive Species Vessel Inspection Program and Early Detection Monitoring Program: August 2018



Cachuma Lake Recreation Area	
Launch Data August 2018	

Inspection Data							
Total Vessels entering Park	241						
Total Vessels launched	229						
Total Vessels Quarantined	12						
Returning with Boat Launch Tag	155	68%					
New: Removed from Quarantine							
Kayak/Canoe: Inspected, launched	74	32%					
4-stroke Engines							
2-strokes, w/CARB star ratings							
2-strokes, NO emissions ratings							
Quarantine Data							
Total Vessels Quarantined	12						
Quarantined 7 days	*						
Quarantined 14 days	*						
Quarantined 30 days	12						
Quarantine Cause							
Water on vessel*	*						
Debris on hull*	*						
Plug installed*	*						
From infected county	2						
Ballast tanks*	*						
Boat longer than 24 feet*	*						
Out-of-state	0						
Unspecified*	*						
Mandatory Quarantine All Untagged Boats	12						
Demographic Data							
Quarantined from infected county	2						
Quarantined from SB County	9						
Quarantined from uninfected co	1						

Boat Launch Tags: Boats with Cachuma Lake Boat Launch Tags attach boat to trailer.

No mussel species have been located on any vessel entering Cachuma Lake as of the last day of this month.

* These conditions are no longer being tracked.

EARLY DETECTION MONITORING PROGRAM SUMMARY

Summary: No Dreissenid mussels were detected Inspection Site: Cachuma Lake, Santa Barbara County, California Inspection Date and Time: 2018.08.31; 12:00 2:00 PDT Method: 10 PVC/Cement Sampling Stations; 52 linear feet of line Surveyors: SBCO Parks Lake elevation: Max feet: 753.00, current 694.79; Max acre-feet: 193,305, current: 64,149; Current capacity: 33.2%

Prepared based on inspections and data collected by Cachuma Lake Staff, Park Hosts, volunteers and Sea Grant staff and interns G:\PARKS-OPERATIONS\MID COUNTY\CACHUMA\QUAGGA MUSSELS\QUAGGA INSPECTIONS & INSPECTION REPORTS\CACHUMA AQUATIC INVASIVE SPECIES REPORTS\CACHUMA AIS REPORTS\CACHUMA AIS REPORTS 2018\AIS INSPECTION SURVEY SUMMARY 2018.08.DOC