



# LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY

## AGENDA

### BOARD OF DIRECTORS MEETING

#### ELSINORE VALLEY MUNICIPAL WATER DISTRICT

31315 Chaney Street  
Lake Elsinore, California 92531  
951.674.3146 (EVMWD) / 951.354.4240 (LESJWA)

**Thursday, October 29, 2015 – 4:00p.m.**

**CALL TO ORDER/PLEDGE OF ALLEGIANCE** (Chair Robert Magee)

**ROLL CALL:** \_\_SAWPA \_\_EVMWD \_\_CITY OF LAKE ELSINORE \_\_CITY OF CANYON LAKE  
\_\_COUNTY OF RIVERSIDE

#### **PUBLIC COMMENTS:**

Members of the public may address the Board on any item that is within the Board's jurisdiction; however, no action may be taken on an item appearing on the agenda unless the action is otherwise authorized by Subdivision (b) Section 54954.2 of the Government Code. Members of the public are requested to provide a public comment notice card to the Board Secretary prior to the meeting in order to speak. The public is given a maximum of five minutes to speak on an issue following discussion of an agenda item.

Materials related to items on this Agenda submitted to the Board after distribution of the agenda packet, are available to the public during regular business hours at the Authority's office: 11615 Sterling Avenue, Riverside, CA 92503.

Any person with a disability who requires accommodation in order to participate in this meeting may contact Dawna Munson at 951.354.4247, at least 48 hours prior to the meeting to request a disability-related modification.

#### **CONSENT CALENDAR**

Consent Calendar items are considered routine and non-controversial, to be acted upon by the Board at one time without discussion. If a Board member, staff member, or interested person requests that an item be removed from the Consent Calendar, the request will become the first item of business on the agenda.

#### **1.0 MINUTES.....3**

**RECOMMENDATION:** Approve the Minutes of the Board of Directors meeting held June 18, 2015.

#### **1.1 TREASURER'S REPORTS.....9**

**RECOMMENDATION:** Receive and file financial statements from June - Aug 2015.

#### **1.2 COMMITTEE STATUS REPORT.....27**

**RECOMMENDATION:** Receive and file a status report from the Education and Outreach Committee meeting held on August 17, 2015.

**End of Consent Calendar**

- 2.0 CANYON LAKE ALUM APPLICATION STATUS REPORT (Memo 775).....43**  
**RECOMMENDATION:** Receive and file a status report presentation regarding the Canyon Lake alum application.
- 3.0 AQUATECHNEX ALUM APPLICATION CHANGE ORDER (Memo 776).....51**  
**RECOMMENDATION:** Approve Change Order No. 1 to Task Order No. AQUA160-01 with Aquatechnex LLC for additional alum application to Canyon Lake using remaining SAWPA/DWR Proposition 84 IRWM grant funding.
- 4.0 LAKE ELSINORE LAKE WATCH STATUS REPORT (Memo 777).....55**  
**RECOMMENDATION:** Receive and file a status report about the Lake Elsinore lake watch program.
- 5.0 LAKE ELSINORE/CANYON LAKE TMDL TASK FORCE (Memo 778).....57**  
**RECOMMENDATION:** Receive and file a status report on the Lake Elsinore and Canyon Lake TMDL Task Force.
- 6.0 ADMINISTRATOR’S COMMENTS**
- 7.0 DIRECTORS’ COMMENTS**
- 8.0 ADJOURN**

**NEXT BOARD OF DIRECTORS MEETING:** Thursday, Dec. 17, 2015 at 4:00 p.m.

**2015 Meeting Schedule**

February 19  
April 16  
June 18  
August 20  
**October 29**  
December 17\*  
(\*as business dictates)

**MINUTES OF THE  
REGULAR BOARD OF DIRECTORS MEETING  
OF THE  
LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY**

**June 18, 2015**

**DIRECTORS PRESENT**

Robert Magee, Chair  
Phil Williams  
Kevin Jeffries  
Brenda Dennstedt

**REPRESENTING**

City of Lake Elsinore  
Elsinore Valley Municipal Water District  
County of Riverside  
Santa Ana Watershed Project Authority

**DIRECTORS ABSENT**

Vicki Warren

City of Canyon Lake

**OTHERS PRESENT**

Nancy Horton  
George Cambero  
Steve Horn  
Jason Uhley  
Liselle DeGrave

EVMWD  
EVMWD  
County of Riverside  
Riverside County Flood Control & WCD  
DeGrave Communications

**LESJWA STAFF**

Mark Norton  
Dawna Munson

LESJWA/Authority Administrator  
LESJWA Board Clerk

The Regular Board of Directors meeting of the Lake Elsinore and San Jacinto Watersheds Authority was called to order at 4:10 p.m., by Chair Robert Magee at the Elsinore Valley Municipal Water District, located at 31315 Chaney Street, Lake Elsinore, California. Chair Magee asked for roll call. Representation was noted by the Clerk from each of the member agencies, with the exception of the City of Canyon Lake.

Chair Magee asked if there were any comments from members of the public wishing to address the Board on matters within its jurisdiction. There were no public comments.

Chair Magee welcomed newly-appointed Director Brenda Dennstedt to the LESJWA Board.

**1.0: CONSENT CALENDAR**

Chair Magee presented the Consent Calendar for review and approval. Director Williams moved approval upon a correction to remove Director Jeffries from the voting count in Item 2.0, as he was absent. The minutes were approved as amended.

2015/6-1

**MOVED**, approval of the Consent Calendar including the Treasurer's Reports from April and May 2015, and the Minutes, as amended, from the April 18, 2015 Board Meeting.

Result:	Approved Unanimously (4-0)
Motion/Second	Williams/Jeffries
Ayes:	Dennstedt, Jeffries, Magee, Williams
Noes:	None
Absent:	Warren
Abstain:	None

## **2.0: Education and Outreach Support (Memo #769)**

Director Dennstedt stated she wished to disclose that she knows of Liselle DeGrave of DeGrave Communications and has worked with her previously. She had consulted with Legal Counsel David Wysocki, who indicated that it does not present an issue; however, she will leave it to the discretion of the Board as to whether or not she should abstain. The Board concurred with the opinion of Legal Counsel.

Mark Norton said this item is to recommend approval of a new contract with the public relations firm, DeGrave Communications. It was agreed at the last Board meeting that it would be beneficial to send out an RFP for a public relations firm, as the prior consultant had been with LESJWA for several years. In the interest of being open and fair, an RFP was sent out to 14 firms. The contract amount is fairly small - \$20,000. One responsive and responsible bid was received, which was from DeGrave Communications. Staff and the LESJWA Education and Outreach Committee held an interview with Liselle DeGrave, and they found that her company met the RFP requirements, having the necessary expertise and skills to do the work. He introduced Liselle DeGrave.

Ms. DeGrave briefly reviewed her background and said that when she saw the proposal, she thought her firm would be a wonderful fit. Her team can do a lot with the \$20,000 contract. She has a background in water and thoroughly understands LESJWA and the process of building awareness. The first step will be to build a communications plan within the organization and meet with each of the members, as everyone has different needs and ways for doing outreach. A first year goal is building awareness to help people buy in when their help is needed, by recognizing who we are. It is also very important to the residents' quality of life, as well as to the area's economic growth.

2015/6-2

**MOVED**, approval of multi-year tasks orders, beginning with Task Order No. DEGR477-01 with DeGrave Communications in the amount of \$20,000 per fiscal year for the LESJWA Education & Outreach Program, for each of the FYs 2015-16, 2016-17, and 2017-18, with an option to continue services two years thereafter.

Result:	Approved Unanimously (4-0)
Motion/Second	Williams/Dennstedt
Ayes:	Dennstedt, Jeffries, Magee, Williams
Noes:	None
Absent:	Warren
Abstain:	None

## **3.0: Regulatory Strategist/TMDL Compliance Support Services (Memo #770)**

Mark Norton stated that staff seeks approval of a renewed task order with Tim Moore of Risk Sciences for the next two fiscal years, totaling \$136,560 for his services as Regulatory Strategist for the Lake Elsinore/Canyon Lake TMDL Task Force. The next couple of years are expected to be very intense. The Task Force will be revising the TMDL as part of the Triennial Review process, as a number of changes have occurred since the time it was first established (page 51 of the staff report shows the development process). They will work closely with the Regional Board, who takes a very proactive stance. Risk Sciences also would work with the MS4 permittees and agricultural operators on compliance issues in accordance with the Agriculture Nutrient Management Plan, and the Comprehensive Nutrient Reduction Plan. This process will occur over the next two-three years. Tim Moore has been the regulatory expert since the Task Force was formed, as he has very unique skills that make him the best choice for doing the work. This work is funded by the LE/CL TMDL Task Force.

Director Williams asked if there are any reports that could be shared about the effectiveness of the alum. Mark Norton said that the regular monitoring that occurs is shared with the Task Force, and the charts and tables that were prepared were shared in previous meetings. The data is available and he'll share some of it today. Director Williams asked what the total would be for the five-year project. Mr. Norton said it would be approximately \$885,000 including management and monitoring, but emphasized the majority of that is offset by the Grant. This is an additional share covered by the Task Force itself. The Grant covers about \$500,000 of the total cost.

Director Williams suggested that it would be prudent to get an interim report – a draft regarding the effectiveness, and a reminder of our goals going into it. Mr. Norton said that although a formal report hasn't been prepared, there are ongoing evaluations at every application, which are vitally important. The TAC gets together with the experts and holds a review; he will share today that there is improvement in the main body.

2015/6-3

**MOVED**, approval of a two-year Task Order No. RISK160-09 with Time Moore of Risk Sciences for an amount not-to-exceed \$136,560 to serve as regulatory strategist and compliance expert to the Lake Elsinore and Canyon Lake TMDL Task Force.

Result:	Approved Unanimously (4-0)
Motion/Second	Williams/Dennstedt
Ayes:	Dennstedt, Jeffries, Magee, Williams
Noes:	None
Absent:	Warren
Abstain:	None

#### **4.0: Watershed-wide Nutrient TMDL Monitoring Program (Memo #771)**

Mark Norton said this item is to recommend approval of a team of TMDL monitoring experts to conduct the Phase 2 nutrient TMDL compliance monitoring program. Staff and the LESJWA TAC reviewed proposals to move into the next phase of the TMDL monitoring, and recommends consultant AMEC Foster Wheeler Environment & Infrastructure, Inc. (AMEC) for a NTE amount of \$150,805 per fiscal year, for a period of three years. The monitoring is an expensive activity. AMEC would bring some of the best tools out there, such as satellite photos, which would reduce our costs. This combination of programs is an effective cost savings and staff recommends hiring AMEC to conduct this work.

2015/6-4

**MOVED**, approval of Task Order No AMEC160-01 with AMEC Foster Wheeler Environment & Infrastructure, Inc. for an amount not-to-exceed \$150,805 per fiscal year, to oversee and implement the Phase 2 Nutrient TMDL Compliance Monitoring Program for the Lake Elsinore and canyon Lake Nutrient Total Maximum Daily Load (TMDL) Task Force for Fiscal Years 2015-16, 2016-17, and 2017-18.

Result:	Approved Unanimously (4-0)
Motion/Second	Jeffries/Williams
Ayes:	Dennstedt, Jeffries, Magee, Williams
Noes:	None
Absent:	Warren
Abstain:	None

#### **5.0: Canyon Lake Alum Application Status Report (Memo #772)**

Mr. Norton provided a status report on the alum application provided by AquaTechnex. Based on the data received, the main body of the lake is improving and going in the right direction. In light of that, for the spring application it was decided not to apply alum to the main body, but to the East Bay where the coves are particularly a problem. It's a long-term process as we study and evaluate our strategy.

The dosage was increased in the coves in the spring from 30 ppm to 40. The test results on the control cove and on Gold Cove show that they are responding. It's surprising that another algae bloom has occurred and that it's a type of algae never seen before – brown algae growth. When the concerns and complaints were received, O'Reilly PR was contacted, as well as a team of advisors, particularly Dr. Michael Anderson, Terry McNabb, and Dr. Noblet to bring a solution to this issue. The first thought was that with most algae, it rises and falls as a typical response to stagnant water. This issue was identified as a common problem in drinking reservoirs throughout California. Lake Elsinore also has experienced algae blooms in the past, but this is unique in that it hasn't gone away in a month's time. More sampling was done today and we should have the

results back in a month or so. It may be something called golden algae, which is more problematic. If it turns out to be a toxin, then warnings would have to go out immediately, but it's now in the investigative phase. Mr. Norton said that his course of action was to bring it to the TMDL Task Force and assess what they want to do. They responded that their mode of action is to work on addressing the nutrient TMDL, which means implementing these 2-1/2 years of five applications. If it helps meet targets by 20/20, then a decision would be made whether to continue doing it. They don't believe they should be applying expensive algaecide when their targets are met – it's not an appropriate use of resources. That's the plan of action. Another alum application is planned for September. There will be discussions as to whether the dosage should be changed and where to apply it; however, too much of an increase would require a new CEQA process and permitting.

It's a difficult situation and we want to be responsive to water quality needs and to the concerned citizens. O'Reilly Public Relations was responsive in doing the outreach, and Mr. Norton is doing outreach at the City Council that the alum is a non-toxic treatment at these levels.

Director Williams commented that he was told that that when you have a dominant algae like the blue-green and we kill its nutrient source, then the other algae types arise. He asked if there was discussion at the time the reports were done about the amount of alum needed to keep nutrients from re-infecting the water column. The alum is being applied at micro thin layers and it seems that we could keep doing this alum application for 30 years and not get to where we want to be. Maybe a different method should be used; maybe switch chemicals – that needs to be evaluated. If there won't be enough money to do it, then why waste the money?

Mark Norton said they're finding that it's working for the majority of the lake – that it's the appropriate dosage. The problem is the stagnant water in the coves that doesn't get flushed out. Dr. Anderson has suggested that maybe the amount should be doubled or even tripled in the East Bay. We may consider going back, and going through the CEQA process and obtaining the necessary permits, and then move forward from there. There would be a delay in doing all that. There is a problem in East Bay, but it does seem to be working based on the data we've seen for the coves. The phosphorus has dropped down, but chlorophyll comes back. It may be that the brown algae thrive on a different nutrient source. We are re-evaluating before every application. However, closing down the project for 2-1/2 years would be detrimental to our efforts; it's important to complete the experiment.

Discussion ensued on what is required for a TMDL, and that it may be better to separate the lake into two separate water bodies. That will be part of the TMDL revision process – whether that strategy should be changed.

Director Williams requested that Mr. Norton share any reports on that with the Board and the District staff. He hasn't seen anything from public relations lately and hasn't seen anything in the Friday Flyer or special mailer. If a report is done, he'd like to be copied on it, and if not, then an update should be prepared.

The report was received and filed by the Board.

#### **6.0: Lake Elsinore/Canyon Lake TMDL Task Force Status Report (Memo #773)**

Mark Norton said as the TMDL revision was discussed in the previous item, this is a brief update. Dr. Anderson is near completion of the modeling reports for Canyon Lake and Lake Elsinore, which is very important for both lakes. Once received, Dr. Anderson will be asked to make a presentation to help us get a sense of what the path is for the cities. He did a hydro-acoustic survey that will be beneficial for the City, especially as the summer heats up.

There will be a very intense level of activity for the next two years.

The report was received and filed by the Board.

**7.0 Resolution No. 2015-02 – Tom Evans Commendatory Resolution (Memo #774)**

Chair Magee stated that Tom Evans had a scheduling conflict and could not make it today. Mark Norton said Mr. Evans served on the Board for seven years, and was instrumental in the development of LESJWA's Business Plan. He will be presented with the Resolution at the next SAWPA Commission meeting, of which he now serves as Chair.

2015/6-5

**MOVED**, approval to adopt Resolution No. 2015-02, commending Tom Evans for his years of service as a LESJWA Board member.

Result:	Approved Unanimously (4-0)
Motion/Second	Williams/Dennstedt
Ayes:	Dennstedt, Jeffries, Magee, Williams
Noes:	None
Absent:	Warren
Abstain:	None

**8.0: ADMINISTRATOR'S COMMENTS**

None.

**9.0: DIRECTORS' COMMENTS**

Chair Magee and the Directors welcomed Director Brenda Dennstedt to the Board.

As there was no further business to discuss, Chair Magee adjourned the meeting at 4:55 p.m.

**APPROVED:** October 29, 2015

\_\_\_\_\_  
Robert Magee, Chair

Attest:

\_\_\_\_\_  
Dawna Munson, Board Clerk

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LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY  
CASH FLOW STATEMENT  
AS OF 08/31/15

**Balance as of 07/31/15** \$ 754,249.60

**Funds Received**

**Deposits:**

WRCAG - TMDL Contribution	23,530.58
City of San Jacinto - TMDL Contribution	26,866.00
City of Wildomar - TMDL Contribution	26,460.00
Eastern Municipal Water District - TMDL Contribution	23,525.00
City of Lake Elsinore - Member Contributions	20,000.00
City of Perris - TMDL Contribution	29,050.00
City of Canyon Lake - Member Contributions	10,000.00
City of Canyon Lake - TMDL Contribution	24,142.00
County of Riverside - TMDL Contribution	30,362.00
City of Hemet - TMDL Contribution	27,958.00
City of Murrieta - TMDL Contribution	26,866.00
EVMWD - TMDL Contribution	23,525.00
DWR - Prop 84 Grant - Inv 2	38,378.89

**Open - Grant Invoices**

DWR - Prop 84 Grant - Inv 1	\$ 6,502.99
DWR - Prop 84 Grant - Inv 2	\$ 2,019.94
DWR - Prop 84 Grant - Inv 3	\$ 10,927.16
	\$ 19,450.09

**Open - Member & Other Contributions**

County of Riverside - Member Contributions	\$ 20,000.00
EVMWD - Member Contributions	\$ 20,000.00
SAWPA - Member Contributions	\$ 10,000.00
City of Beaumont - TMDL Contribution	\$ 26,866.00
City of Moreno Valley - TMDL Contribution	\$ 17,750.00
City of Riverside - TMDL Contribution	\$ 26,866.00
City of Menifee - TMDL Contribution	\$ 23,584.00
City of Lake Elsinore - TMDL Contribution	\$ 32,463.00
March Air Reserve Base - TMDL Contribution	\$ 25,176.00
CA Dept of Transportation - TMDL Contribution	\$ 26,072.00
March JPA - TMDL Contribution	\$ 27,160.00
	\$ 255,937.00

<b>Total Due LESJWA</b>	\$ 275,387.09
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**Disbursement List - August 2015**

(52,136.02)

**Funds Available as of 08/31/15**

**\$ 1,032,777.05**

**Funds Available:**

Checking	\$ 273,168.75
LAIF	\$ 759,608.30
<b>Total</b>	<b>\$ 1,032,777.05</b>

Lake Elsinore San Jacinto Watersheds Authority  
LE/CL TMDL Invoice History  
FYE 2009 - 2016

Agency	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
March ARB	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	35,226.00	25,176.00
CalTrans	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	28,656.00	26,072.00
City of Beaumont	2,957.00	3,940.00	4,719.53	3,900.00	1,865.00	19,263.00	24,280.00	26,866.00
City of Canyon Lake	3,670.00	4,890.00	4,109.46	3,396.00	644.00	18,389.00	34,863.00	24,142.00
City of Hemet	22,308.00	29,723.00	27,460.77	22,696.00	6,286.00	18,175.00	25,510.00	27,958.00
City of Lake Elsinore	21,403.00	67,782.00	89,889.28	73,133.00	-	19,381.00	30,580.00	32,463.00
City of Menifee	-	-	24,752.77	20,458.00	23,649.00	44,155.00	55,821.00	23,584.00
City of Moreno Valley	50,638.00	67,469.00	63,546.31	52,520.00	15,425.00	103,565.00	113,058.00	17,750.00
City of Murrieta	2,006.00	2,673.00	786.96	650.00	-	12,426.00	24,280.00	26,866.00
City of Perris	15,000.00	19,985.00	20,060.94	16,580.00	5,752.00	18,869.00	26,739.00	29,050.00
City of Riverside	2,071.00	2,759.00	3,587.28	2,965.00	1,575.00	17,641.00	24,280.00	26,866.00
City of San Jacinto	9,565.00	12,744.00	13,470.59	11,133.00	4,315.00	19,487.00	24,280.00	26,866.00
City of Wildomar	-	-	4,668.93	3,859.00	4,461.00	8,307.00	19,528.00	26,460.00
County of Riverside	57,352.00	76,415.00	39,829.77	32,919.00	-	30,165.00	36,469.00	30,362.00
Dept of Fish and Game	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	18,435.00	28,840.00
Eastern Municipal Water District	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	16,225.00	23,525.00
Elsinore Valley Municipal Water District	13,656.00	57,460.00	75,294.20	61,070.00	-	12,500.00	16,225.00	23,525.00
March JPA	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	24,485.00	27,160.00
San Jacinto Agricultural Operators *	159,074.00	-	-	143,320.00	28,278.00	12,500.00	47,549.00	23,530.58
San Jacinto Dairy & CAFO Operators *	41,634.00	37,252.80	25,000.00	10,000.00	10,211.00	12,500.00	16,225.00	-
Total	451,334.00	433,092.80	447,176.79	508,599.00	167,711.00	429,823.00	642,714.00	497,061.58
Total Paid Contributions	451,334.00	433,092.80	447,176.79	379,290.00	167,711.00	429,823.00	642,714.00	291,124.58
<b>Total Outstanding Contributions</b>	-	-	-	<b>129,309.00</b>	-	-	-	<b>205,937.00</b>

Lake Elsinore/San Jacinto Watershed Authority  
Statement of Net Assets  
For the Two Months Ending Monday, August 31, 2015

Assets

Checking - US Bank	\$273,168.75
L.A.I.F.	759,608.30
Accounts Receivable	275,387.09
Total Assets	<u>\$1,308,164.14</u>

Liabilities

Accounts Payable	<u>86,380.12</u>
Total Liabilities	<u>\$86,380.12</u>

Retained Earnings	738,871.80
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Excess Revenue over (under) Expenditures	<u>\$482,912.22</u>
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Total Net Assets	<u>\$1,221,784.02</u>
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Total Liabilities and Net Assets	<u>\$1,308,164.14</u>
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Lake Elsinore/San Jacinto Watershed Authority  
Revenues, Expenses and Changes in Net Assets  
For the Two Months Ending Monday, August 31, 2015

	Period Actual	YTD Actual	Annual Budget	% Used	Budget Variance
<b>Revenues</b>					
State Grant Proceeds	\$0.00	\$0.00	\$328,000.00	0.00%	\$328,000.00
LAIF Interest	0.00	0.00	878.00	0.00%	878.00
Member Agency Contributions	0.00	210,492.00	206,125.00	102.12%	(4,367.00)
Other Agency Contributions	0.00	386,569.58	435,375.00	88.79%	48,805.42
<b>Total Revenues</b>	<b>\$0.00</b>	<b>\$597,061.58</b>	<b>\$970,378.00</b>	<b>61.53%</b>	<b>\$373,316.42</b>
<b>Expenses</b>					
Salaries - Regular	7,086.49	12,630.61	58,286.86	21.67%	45,656.25
Payroll Burden	2,969.24	5,292.23	24,421.83	21.67%	19,129.60
Overhead	11,281.69	20,107.93	92,791.31	21.67%	72,683.38
Audit Fees	0.00	950.00	5,500.00	17.27%	4,550.00
Consulting - General	35,877.52	73,006.59	785,500.00	9.29%	712,493.41
Legal Fees	0.00	0.00	1,500.00	0.00%	1,500.00
Meeting & Conference Expense	0.00	0.00	100.00	0.00%	100.00
Shipping & Postage	0.00	0.00	50.00	0.00%	50.00
Office Supplies	0.00	0.00	60.00	0.00%	60.00
Other Expense	0.00	0.00	50.00	0.00%	50.00
Insurance Expense	0.00	2,162.00	2,068.00	104.55%	(94.00)
Interest Expense	0.00	0.00	50.00	0.00%	50.00
<b>Total Expenditures</b>	<b>\$57,214.94</b>	<b>\$114,149.36</b>	<b>\$970,378.00</b>	<b>11.76%</b>	<b>\$856,228.64</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>(\$57,214.94)</b>	<b>\$482,912.22</b>	<b>\$0.00</b>	<b>0.00%</b>	<b>(\$482,912.22)</b>

**Lake Elsinore San Jacinto Watersheds Authority**  
**Revenues, Expenses and Changes in Net Assets by Project**  
**For the Month Ending August 31, 2015**

	JPA		TMDL				Budget	% Used	Budget Variance
	Administration		Task Force		Total				
<b>Revenues</b>									
State Grant Proceeds	\$	-	\$	-	\$	-	\$ 328,000.00	0.00%	\$ 328,000.00
LAIF Interest		-		-		-	878.00	0.00%	878.00
Member Agency Contributions		100,000.00		110,492.00		210,492.00	206,125.00	102.12%	(4,367.00)
Other Agency Contributions		-		386,569.58		386,569.58	435,375.00	88.79%	48,805.42
<b>Total Revenues</b>	\$	100,000.00	\$	497,061.58	\$	597,061.58	\$ 970,378.00	61.53%	\$ 373,316.42
<b>Expenditures</b>									
Salaries	\$	4,183.59	\$	8,447.02	\$	12,630.61	\$ 58,286.86	21.67%	\$ 45,656.25
Benefits		1,752.93		3,539.30		5,292.23	24,421.83	21.67%	19,129.60
G&A Allocation		6,660.28		13,447.65		20,107.93	92,791.31	21.67%	72,683.38
Audit Fees		950.00		-		950.00	5,500.00	17.27%	4,550.00
Consulting		8,140.00		64,866.59		73,006.59	785,500.00	9.29%	712,493.41
Studies		-		-		-	-	0.00%	-
Other Contract Services		-		-		-	-	0.00%	-
Legal Fees		-		-		-	1,500.00	0.00%	1,500.00
Project Construction		-		-		-	-	0.00%	-
Meeting & Conference Expense		-		-		-	100.00	0.00%	100.00
Office Expense		-		-		-	110.00	0.00%	110.00
Board Compensation		-		-		-	-	0.00%	-
Other Expense		-		-		-	50.00	0.00%	50.00
Insurance Expense		2,162.00		-		2,162.00	2,068.00	104.55%	(94.00)
Interest Expense		-		-		-	50.00	0.00%	50.00
<b>Total Expenditures</b>	\$	23,848.80	\$	90,300.56	\$	114,149.36	\$ 970,378.00	11.76%	\$ 856,228.64
<b>Excess Revenue over (under) Expenditures</b>	\$	76,151.20	\$	406,761.02	\$	482,912.22	\$ -	100.00%	\$ (482,912.22)
<b>Cash Balance @ 08/31/15</b>	\$	<b>45,387.91</b>	\$	<b>987,389.14</b>	\$	<b>1,032,777.05</b>			

**Lake Elsinore San Jacinto  
Watersheds Authority  
Disbursements  
August 31, 2015**

<b>Check #</b>	<b>Check Date</b>	<b>Type</b>	<b>Vendor</b>	<b>Check Amount</b>
1019	08/03/2015	CHK	White Nelson Diehl Evans LLP	\$ 950.00
1020	08/07/2015	CHK	MWH Americas, Inc.	\$ 9,526.13
1021	08/07/2015	CHK	O'Reilly Public Relations	\$ 1,570.00
1022	08/07/2015	CHK	Regents of the Univ of Calif	\$ 627.65
1023	08/13/2015	CHK	AquaTechnex LLC	\$ 2,213.25
EFT016	08/03/2015	CHK	Weston Solutions Inc	\$ 10,230.37
EFT017	08/07/2015	CHK	Santa Ana Watershed Project Authority	\$ 16,727.35
EFT018	08/13/2015	CHK	Risk Sciences	\$ 5,907.52
EFT019	08/13/2015	CHK	DeGrave Communications	\$ 4,383.75
Total Disbursements August 2015				<u><u>\$ 52,136.02</u></u>

LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY  
CASH FLOW STATEMENT  
AS OF 07/31/15

**Balance as of 06/30/15** \$ 759,875.26

**Funds Received**

**Deposits:**

LAIF Interest	395.30
Riverside County - FY 14-15 Member Contribution	20,000.00
Riverside County - FY 15-16 Member Contribution	20,000.00

**Open - Grant Invoices**

DWR - Prop 84 Grant - Inv 1	\$ 6,502.99
DWR - Prop 84 Grant - Inv 2	\$ 40,398.83
DWR - Prop 84 Grant - Inv 3	\$ 10,927.16
	\$ 57,828.98

**Open - Member & Other Contributions**

City of Canyon Lake - Member Contributions	\$ 10,000.00
City of Lake Elsinore - Member Contributions	\$ 20,000.00
County of Riverside - Member Contributions	\$ 20,000.00
EVMWD - Member Contributions	\$ 20,000.00
SAWPA - Member Contributions	\$ 10,000.00
City of Beaumont - TMDL Contribution	\$ 26,866.00
City of Canyon Lake - TMDL Contribution	\$ 24,142.00
City of Hemet - TMDL Contribution	\$ 27,958.00
City of Moreno Valley - TMDL Contribution	\$ 17,750.00
City of Perris - TMDL Contribution	\$ 29,050.00
City of Riverside - TMDL Contribution	\$ 26,866.00
City of San Jacinto - TMDL Contribution	\$ 26,866.00
City of Menifee - TMDL Contribution	\$ 23,584.00
City of Wildomar - TMDL Contribution	\$ 26,460.00
City of Lake Elsinore - TMDL Contribution	\$ 32,463.00
City of Murrieta - TMDL Contribution	\$ 26,866.00
County of Riverside - TMDL Contribution	\$ 30,362.00
March Air Reserve Base - TMDL Contribution	\$ 25,176.00
CA Dept of Transportation - TMDL Contribution	\$ 26,072.00
Eastern Municipal Water District - TMDL Contribution	\$ 23,525.00
March JPA - TMDL Contribution	\$ 27,160.00
EVMWD - TMDL Contribution	\$ 23,525.00
WRCAG - TMDL Contribution	\$ 23,530.58
	\$ 548,221.58

<b>Total Due LESJWA</b>	\$ 606,050.56
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**Disbursement List - July 2015**

(46,020.96)

**Funds Available as of 07/31/15**

**\$ 754,249.60**

**Funds Available:**

Checking	\$ 194,641.30
LAIF	\$ 559,608.30
<b>Total</b>	<b>\$ 754,249.60</b>

Lake Elsinore San Jacinto Watersheds Authority  
LE/CL TMDL Invoice History  
FYE 2009 - 2016

Agency	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
March ARB	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	35,226.00	25,176.00
CalTrans	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	28,656.00	26,072.00
City of Beaumont	2,957.00	3,940.00	4,719.53	3,900.00	1,865.00	19,263.00	24,280.00	26,866.00
City of Canyon Lake	3,670.00	4,890.00	4,109.46	3,396.00	644.00	18,389.00	34,863.00	24,142.00
City of Hemet	22,308.00	29,723.00	27,460.77	22,696.00	6,286.00	18,175.00	25,510.00	27,958.00
City of Lake Elsinore	21,403.00	67,782.00	89,889.28	73,133.00	-	19,381.00	30,580.00	32,463.00
City of Menifee	-	-	24,752.77	20,458.00	23,649.00	44,155.00	55,821.00	23,584.00
City of Moreno Valley	50,638.00	67,469.00	63,546.31	52,520.00	15,425.00	103,565.00	113,058.00	17,750.00
City of Murrieta	2,006.00	2,673.00	786.96	650.00	-	12,426.00	24,280.00	26,866.00
City of Perris	15,000.00	19,985.00	20,060.94	16,580.00	5,752.00	18,869.00	26,739.00	29,050.00
City of Riverside	2,071.00	2,759.00	3,587.28	2,965.00	1,575.00	17,641.00	24,280.00	26,866.00
City of San Jacinto	9,565.00	12,744.00	13,470.59	11,133.00	4,315.00	19,487.00	24,280.00	26,866.00
City of Wildomar	-	-	4,668.93	3,859.00	4,461.00	8,307.00	19,528.00	26,460.00
County of Riverside	57,352.00	76,415.00	39,829.77	32,919.00	-	30,165.00	36,469.00	30,362.00
Dept of Fish and Game	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	18,435.00	28,840.00
Eastern Municipal Water District	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	16,225.00	23,525.00
Elsinore Valley Municipal Water District	13,656.00	57,460.00	75,294.20	61,070.00	-	12,500.00	16,225.00	23,525.00
March JPA	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	24,485.00	27,160.00
San Jacinto Agricultural Operators *	159,074.00	-	-	143,320.00	28,278.00	12,500.00	47,549.00	23,530.58
San Jacinto Dairy & CAFO Operators *	41,634.00	37,252.80	25,000.00	10,000.00	10,211.00	12,500.00	16,225.00	-
Total	451,334.00	433,092.80	447,176.79	508,599.00	167,711.00	429,823.00	642,714.00	497,061.58
Total Paid Contributions	451,334.00	433,092.80	447,176.79	379,290.00	167,711.00	429,823.00	642,714.00	28,840.00
<b>Total Outstanding Contributions</b>	-	-	-	<b>129,309.00</b>	-	-	-	<b>468,221.58</b>



Lake Elsinore/San Jacinto Watershed Authority  
Statement of Net Assets  
For the One Month Ending Friday, July 31, 2015

Assets

Checking - US Bank	\$194,641.30
L.A.I.F.	559,608.30
Accounts Receivable	606,050.56
Total Assets	<u>\$1,360,300.16</u>

Liabilities

Accounts Payable	81,274.32
Accrued Accounts Payable	26.18
Accrued Interest Payable	0.70
Total Liabilities	<u>\$81,301.20</u>

Retained Earnings	738,871.80
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Excess Revenue over (under) Expenditures	<u>\$540,127.16</u>
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Total Net Assets	<u>\$1,278,998.96</u>
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Total Liabilities and Net Assets	<u>\$1,360,300.16</u>
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Lake Elsinore/San Jacinto Watershed Authority  
Revenues, Expenses and Changes in Net Assets  
For the One Month Ending Friday, July 31, 2015

	Period Actual	YTD Actual	Annual Budget	% Used	Budget Variance
<b>Revenues</b>					
State Grant Proceeds	\$0.00	\$0.00	\$328,000.00	0.00%	\$328,000.00
LAIF Interest	0.00	0.00	878.00	0.00%	878.00
Member Agency Contributions	210,492.00	210,492.00	206,125.00	102.12%	(4,367.00)
Other Agency Contributions	386,569.58	386,569.58	435,375.00	88.79%	48,805.42
<b>Total Revenues</b>	<b>\$597,061.58</b>	<b>\$597,061.58</b>	<b>\$970,378.00</b>	<b>61.53%</b>	<b>\$373,316.42</b>
<b>Expenses</b>					
Salaries - Regular	5,544.12	5,544.12	58,286.86	9.51%	52,742.74
Payroll Burden	2,322.99	2,322.99	24,421.83	9.51%	22,098.84
Overhead	8,826.24	8,826.24	92,791.31	9.51%	83,965.07
Audit Fees	950.00	950.00	5,500.00	17.27%	4,550.00
Consulting - General	37,129.07	37,129.07	785,500.00	4.73%	748,370.93
Legal Fees	0.00	0.00	1,500.00	0.00%	1,500.00
Meeting & Conference Expense	0.00	0.00	100.00	0.00%	100.00
Shipping & Postage	0.00	0.00	50.00	0.00%	50.00
Office Supplies	0.00	0.00	60.00	0.00%	60.00
Other Expense	0.00	0.00	50.00	0.00%	50.00
Insurance Expense	2,162.00	2,162.00	2,068.00	104.55%	(94.00)
Interest Expense	0.00	0.00	50.00	0.00%	50.00
<b>Total Expenditures</b>	<b>\$56,934.42</b>	<b>\$56,934.42</b>	<b>\$970,378.00</b>	<b>5.87%</b>	<b>\$913,443.58</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>\$540,127.16</b>	<b>\$540,127.16</b>	<b>\$0.00</b>	<b>0.00%</b>	<b>(\$540,127.16)</b>

**Lake Elsinore San Jacinto Watersheds Authority**  
**Revenues, Expenses and Changes in Net Assets by Project**  
**For the Month Ending July 31, 2015**

	<b>JPA</b>	<b>TMDL</b>				<b>Budget</b>	<b>% Used</b>	<b>Budget</b>
	<b>Administration</b>	<b>Task Force</b>	<b>Total</b>					<b>Variance</b>
<b>Revenues</b>								
State Grant Proceeds	\$ -	\$ -	\$ -	\$ 328,000.00	0.00%	\$ 328,000.00		
LAIF Interest	-	-	-	878.00	0.00%	878.00		
Member Agency Contributions	100,000.00	110,492.00	210,492.00	206,125.00	102.12%	(4,367.00)		
Other Agency Contributions	-	386,569.58	386,569.58	435,375.00	88.79%	48,805.42		
<b>Total Revenues</b>	<b>\$ 100,000.00</b>	<b>\$ 497,061.58</b>	<b>\$ 597,061.58</b>	<b>\$ 970,378.00</b>	<b>61.53%</b>	<b>\$ 373,316.42</b>		
<b>Expenditures</b>								
Salaries	\$ 2,022.26	\$ 3,521.86	\$ 5,544.12	\$ 58,286.86	9.51%	\$ 52,742.74		
Benefits	847.33	1,475.66	2,322.99	24,421.83	9.51%	22,098.84		
G&A Allocation	3,219.44	5,606.80	8,826.24	92,791.31	9.51%	83,965.07		
Audit Fees	950.00	-	950.00	5,500.00	17.27%	4,550.00		
Consulting	4,383.75	32,745.32	37,129.07	785,500.00	4.73%	748,370.93		
Studies	-	-	-	-	0.00%	-		
Other Contract Services	-	-	-	-	0.00%	-		
Legal Fees	-	-	-	1,500.00	0.00%	1,500.00		
Project Construction	-	-	-	-	0.00%	-		
Meeting & Conference Expense	-	-	-	100.00	0.00%	100.00		
Office Expense	-	-	-	110.00	0.00%	110.00		
Board Compensation	-	-	-	-	0.00%	-		
Other Expense	-	-	-	50.00	0.00%	50.00		
Insurance Expense	2,162.00	-	2,162.00	2,068.00	104.55%	(94.00)		
Interest Expense	-	-	-	50.00	0.00%	50.00		
<b>Total Expenditures</b>	<b>\$ 13,584.78</b>	<b>\$ 43,349.64</b>	<b>\$ 56,934.42</b>	<b>\$ 970,378.00</b>	<b>5.87%</b>	<b>\$ 913,443.58</b>		
<b>Excess Revenue over (under) Expenditures</b>	<b>\$ 86,415.22</b>	<b>\$ 453,711.94</b>	<b>\$ 540,127.16</b>	<b>\$ -</b>	<b>100.00%</b>	<b>\$ (540,127.16)</b>		
<b>Cash Balance @ 07/31/15</b>	<b>\$ 48,123.79</b>	<b>\$ 773,990.58</b>	<b>\$ 754,249.60</b>					

**Lake Elsinore San Jacinto  
Watersheds Authority  
Disbursements  
July 31, 2015**

<b>Check #</b>	<b>Check Date</b>	<b>Type</b>	<b>Vendor</b>	<b>Check Amount</b>
1018	7/24/2015	CHK	Aklufi and Wysocki	\$ 306.25
EFT013	7/13/2015	CHK	Santa Ana Watershed Project	\$ 24,771.67
EFT014	7/24/2015	CHK	Haley & Aldrich Inc	\$ 12,714.27
EFT015	7/24/2015	CHK	Risk Sciences	\$ 8,228.77
Total Disbursements July 2015				<u><u>\$ 46,020.96</u></u>

*Lake Elsinore and San Jacinto Watersheds Authority*

*FINANCIAL STATEMENTS*

*June 2015  
(unaudited)*

LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY  
CASH FLOW STATEMENT  
AS OF 06/30/15

**Balance as of 05/31/15** \$ 637,392.93

**Funds Received**

**Deposits:**

Prop 84 Grant	123,556.76
California DFG - TMDL Contribution FY 2015-16	28,840.00

**Open - Grant Invoices**

DWR - Prop 84 Grant - Inv 1	\$6,502.99
DWR - Prop 84 Grant - Inv 2	\$40,398.83
DWR - Prop 84 Grant - Inv 3	\$10,927.16
	\$57,828.98

**Open - Member & Other Contributions**

Riverside County - Member Contribution	\$20,000.00
<b>Total Due LESJWA</b>	\$77,828.98

**Disbursement List - June 2015** (29,914.43)

**Funds Available as of 06/30/15** **\$ 759,875.26**

**Funds Available:**

Checking	\$ 200,662.26
LAIF	\$ 559,213.00
<b>Total</b>	<b>\$ 759,875.26</b>

Lake Elsinore San Jacinto Watersheds Authority  
LE/CL TMDL Invoice History  
FYE 2009 - 2015

Agency	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
March ARB	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	35,226.00
CalTrans	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	28,656.00
City of Beaumont	2,957.00	3,940.00	4,719.53	3,900.00	1,865.00	19,263.00	24,280.00
City of Canyon Lake	3,670.00	4,890.00	4,109.46	3,396.00	644.00	18,389.00	34,863.00
City of Hemet	22,308.00	29,723.00	27,460.77	22,696.00	6,286.00	18,175.00	25,510.00
City of Lake Elsinore	21,403.00	67,782.00	89,889.28	73,133.00	-	19,381.00	30,580.00
City of Menifee	-	-	24,752.77	20,458.00	23,649.00	44,155.00	55,821.00
City of Moreno Valley	50,638.00	67,469.00	63,546.31	52,520.00	15,425.00	103,565.00	113,058.00
City of Murrieta	2,006.00	2,673.00	786.96	650.00	-	12,426.00	24,280.00
City of Perris	15,000.00	19,985.00	20,060.94	16,580.00	5,752.00	18,869.00	26,739.00
City of Riverside	2,071.00	2,759.00	3,587.28	2,965.00	1,575.00	17,641.00	24,280.00
City of San Jacinto	9,565.00	12,744.00	13,470.59	11,133.00	4,315.00	19,487.00	24,280.00
City of Wildomar	-	-	4,668.93	3,859.00	4,461.00	8,307.00	19,528.00
County of Riverside	57,352.00	76,415.00	39,829.77	32,919.00	-	30,165.00	36,469.00
Dept of Fish and Game	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	18,435.00
Eastern Municipal Water District	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	16,225.00
Elsinore Valley Municipal Water District	13,656.00	57,460.00	75,294.20	61,070.00	-	12,500.00	16,225.00
March JPA	10,000.00	10,000.00	10,000.00	10,000.00	13,050.00	12,500.00	24,485.00
San Jacinto Agricultural Operators *	159,074.00	-	-	143,320.00	28,278.00	12,500.00	47,549.00
San Jacinto Dairy & CAFO Operators *	41,634.00	37,252.80	25,000.00	10,000.00	10,211.00	12,500.00	16,225.00
Total	451,334.00	433,092.80	447,176.79	508,599.00	167,711.00	429,823.00	642,714.00
Total Paid Contributions	451,334.00	433,092.80	447,176.79	379,290.00	167,711.00	429,823.00	642,714.00
<b>Total Outstanding Contributions</b>	-	-	-	<b>129,309.00</b>	-	-	-

Lake Elsinore/San Jacinto Watershed Authority  
Statement of Net Assets  
For the Twelve Months Ending Tuesday, June 30, 2015

Assets

Checking - US Bank	\$200,662.26
L.A.I.F.	559,213.00
Accounts Receivable	57,828.98
Accrued Accounts Receivable	20,000.00
Interest Receivable	395.30
Prepaid Insurance	2,162.00
Total Assets	<u>\$840,261.54</u>

Liabilities

Accounts Payable	46,020.96
Accrued Accounts Payable	26,528.78
Unearned Revenue	28,840.00
Total Liabilities	<u>\$101,389.74</u>

Retained Earnings	453,999.74
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Excess Revenue over (under) Expenditures	<u>\$284,872.06</u>
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Total Net Assets	<u>\$738,871.80</u>
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Total Liabilities and Net Assets	<u>\$840,261.54</u>
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Lake Elsinore/San Jacinto Watershed Authority  
Revenues, Expenses and Changes in Net Assets  
For the Twelve Months Ending Tuesday, June 30, 2015

	Period Actual	YTD Actual	Annual Budget	% Used	Budget Variance
<b>Revenues</b>					
State Grant Proceeds	\$10,927.16	\$181,385.74	\$210,148.00	86.31%	\$28,762.26
LAIF Interest	395.30	1,414.58	800.00	176.82%	(614.58)
Member Agency Contributions	20,000.00	218,137.00	70,000.00	311.62%	(148,137.00)
Other Agency Contributions	0.00	460,803.00	444,744.00	103.61%	(16,059.00)
<b>Total Revenues</b>	<b>\$31,322.46</b>	<b>\$861,740.32</b>	<b>\$725,692.00</b>	<b>118.75%</b>	<b>(\$136,048.32)</b>
<b>Expenses</b>					
Salaries - Regular	8,180.87	65,546.94	55,253.00	118.63%	(10,293.94)
Payroll Burden	3,755.02	30,086.02	25,363.00	118.62%	(4,723.02)
Overhead	12,835.78	102,843.16	86,692.00	118.63%	(16,151.16)
Audit Fees	0.00	5,500.00	5,500.00	100.00%	0.00
Consulting - General	47,410.94	368,404.51	569,634.00	64.67%	201,229.49
Legal Fees	306.25	1,312.50	1,500.00	87.50%	187.50
Meeting & Conference Expense	28.75	464.39	100.00	464.39%	(364.39)
Shipping & Postage	0.00	0.00	50.00	0.00%	50.00
Office Supplies	0.00	162.35	60.00	270.58%	(102.35)
Other Expense	0.00	427.23	50.00	854.46%	(377.23)
Insurance Expense	0.00	2,068.00	2,572.00	80.40%	504.00
Interest Expense	32.13	53.16	50.00	106.32%	(3.16)
<b>Total Expenditures</b>	<b>\$72,549.74</b>	<b>\$576,868.26</b>	<b>\$746,824.00</b>	<b>77.24%</b>	<b>\$169,955.74</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>(\$41,227.28)</b>	<b>\$284,872.06</b>	<b>(\$21,132.00)</b>	<b>-1348.06%</b>	<b>(\$306,004.06)</b>

**Lake Elsinore San Jacinto Watersheds Authority**  
**Revenues, Expenses and Changes in Net Assets by Project**  
**For the Month Ending June 30, 2015**

	<b>JPA</b>	<b>TMDL</b>				<b>Budget</b>	<b>% Used</b>	<b>Budget</b>
	<b>Administration</b>	<b>Task Force</b>	<b>Total</b>					<b>Variance</b>
<b>Revenues</b>								
State Grant Proceeds	\$ -	\$ 181,385.74	\$ 181,385.74	\$ 210,148.00	86.31%	\$ 28,762.26		
LAIF Interest	1,414.58	-	1,414.58	800.00	176.82%	(614.58)		
Member Agency Contributions	100,000.00	118,137.00	218,137.00	70,000.00	311.62%	(148,137.00)		
Other Agency Contributions	-	460,803.00	460,803.00	444,744.00	103.61%	(16,059.00)		
<b>Total Revenues</b>	<b>\$ 101,414.58</b>	<b>\$ 760,325.74</b>	<b>\$ 861,740.32</b>	<b>\$ 725,692.00</b>	<b>118.75%</b>	<b>\$ (136,048.32)</b>		
<b>Expenditures</b>								
Salaries	\$ 26,688.96	\$ 38,857.97	\$ 65,546.92	\$ 55,253.00	118.63%	\$ (10,293.92)		
Benefits	12,250.23	17,835.79	30,086.02	25,363.00	118.62%	(4,723.02)		
G&A Allocation	41,875.02	60,968.14	102,843.16	86,692.00	118.63%	(16,151.16)		
Audit Fees	5,500.00	-	5,500.00	5,500.00	100.00%	-		
Consulting	12,086.99	356,317.52	368,404.51	569,634.00	64.67%	201,229.49		
Studies	-	-	-	-	0.00%	-		
Other Contract Services	-	-	-	-	0.00%	-		
Legal Fees	1,312.50	-	1,312.50	1,500.00	0.00%	187.50		
Project Construction	-	-	-	-	0.00%	-		
Meeting & Conference Expense	143.23	321.16	464.39	100.00	464.39%	(364.39)		
Office Expense	162.35	-	162.35	110.00	147.59%	(52.35)		
Board Compensation	-	-	-	-	0.00%	-		
Other Expense	28.93	398.30	427.23	50.00	854.46%	(377.23)		
Insurance Expense	2,068.00	-	2,068.00	2,572.00	80.40%	504.00		
Interest Expense	53.16	-	53.16	50.00	106.32%	(3.16)		
<b>Total Expenditures</b>	<b>\$ 102,169.37</b>	<b>\$ 474,698.88</b>	<b>\$ 576,868.24</b>	<b>\$ 746,824.00</b>	<b>77.24%</b>	<b>\$ 169,955.76</b>		
<b>Excess Revenue over (under) Expenditures</b>	<b>\$ (754.79)</b>	<b>\$ 285,626.86</b>	<b>\$ 284,872.08</b>	<b>\$ (21,132.00)</b>	<b>-1348.06%</b>	<b>\$ (306,004.08)</b>		
<b>Cash Balance @ 06/30/15</b>	<b>\$ 24,475.00</b>	<b>\$ 735,400.26</b>	<b>\$ 759,875.26</b>					

## **LESJWA BOARD MEMORANDUM NO. 774**

**DATE:** October 29, 2015  
**SUBJECT:** Committees Status Report  
**TO:** LESJWA Board of Directors  
**FROM:** Mark Norton, P.E., Authority Administrator

### **RECOMMENDATION**

That the Board of Directors receive and file the status report of the LESJWA Education & Outreach Committee (EOC).

### **DISCUSSION**

Attached are the meeting notes from the Education and Outreach Committee meeting held August 17, 2015, and the Education & Outreach Activity Report for August, prepared by DeGrave Communications.

### **RESOURCES IMPACT**

None.

dm/

Attachment:

1. EOC Meeting Notes 8-17-15
2. Education & Outreach Activity Report, August

**LESJWA Education and Outreach Committee**  
**Meeting Notes**  
**August 17, 2015**

Members Present: Mark Norton, Chair, SAWPA  
Nicole Dailey, City of Lake Elsinore  
Bonnie Woodrome, EVMWD

Others Present: Lisselle DeGrave, DeGrave Communications

Members Absent: Steven Horn, County of Riverside  
Vicki Warren, City of Canyon Lake

**1. Call to Order**

Mark Norton called the meeting to order at 12:03 pm at Elsinore Valley Municipal Water District (EVMWD), located at 31315 Chaney Street, Lake Elsinore, California.

**2. Additions/Corrections to the Agenda**

None.

**3. Approval of the Meeting Notes**

The meeting notes from April 6, 2015 were reviewed and deemed acceptable by the Committee.

**4. Lake Levels**

Lake Levels – The most current lake levels at Lake Elsinore are 1235.87 (August 10), and 1378.48' at Canyon Lake. The lake levels from the last meeting at Lake Elsinore were 1237.31 (March 30) and Canyon Lake at 1380.14 (April 3).

**5. Project Status**

- **Canyon Lake** – Mark Norton gave an update about the next planned alum application to Canyon Lake. He reported that the next alum application will be conducted on Sept. 21-25, 2015 by Aquatechnex. This timeframe was based on the input of the Alum Technical Advisory Committee who met on August 12th consisting of reps from EVMWD, Canyon Lake POA, City of Canyon Lake, Aquatechnex, Dr. Michael Anderson, MWH, Dr. Noblet – CSUSB, Tim Moore, and LESJWA staff. The consensus of the TAC was to conduct the regular alum application to both the East Bay and the Main Body with some recalculation of dosage based on updated bathometric survey information from Dr. Anderson providing better lake volume estimates. Based on the water quality data, both Canyon Lake main body and the East Bay have significantly improved in clarity. Water quality results from the last alum application in the spring indicated the slightly increased dosage rate from 30 mg/L to 40 mg/L applied in two coves of the East Bay did not result in significantly increased phosphorus reduction or Chlorophyll a removal. Overall, the main body of Canyon Lake and the East Bay coves now appear very clear with some residents reporting it being clearer in the East Bay coves than they ever have for the past 30 years.
- **Lake Elsinore – Lake Watch 2015** - Nicole Dailey reported that minor fish kills occurred at Lake Elsinore over a six-day time span from 8/3/15 - 8/9/15 consisting of mostly carp and sport fish the first two days followed by mostly shad on the 3<sup>rd</sup> and 4<sup>th</sup> day. On Sunday, Aug. 16<sup>th</sup> there was a small die off consisting of fingerling fish including baby bass, bluegill, and other sport fish covering about 200 lineal feet of the lake shoreline. Overall, the City staff and other volunteers have removed approximately 17.44 tons of dead fish since the start of the die off last weeks. This is still considered a minor die off compared to past major fish kills like the 2009 die off when over 50 tons of dead fish washed ashore. So far, the City of Lake Elsinore has not

declared this as an emergency and has limited it to a Stage 2 concern under their Lake Watch program. Stage 1 is when fish kills have begun, or due to sustained water quality conditions, appear likely to occur. Stage 2 is when local resources are called in to clean up the dead fish. Stage 3 is when the volume of fish has increased so much that local and regional resources are called in to help. Stage 4 is considered an emergency declaration by the City to the enormity of the fish kill. Ms. Dailey reported that even under Stage 2, many outside agencies provided volunteers to help pick up dead fish including the City of Wildomar.

The Lake Watch program is progressing with the City continuing to obtain temporary access easements from residents. With cooler temperatures forthcoming, it is hoped that the fish kills will subside. Nicole Dailey shared recent graphs of lake DO levels at various depths in the lake based on the EVMWD DO lake sonde stations. She pointed out that the dips in DO at all levels the week prior to the fish kills reflect periods of 12-15 hours of low DO that resulted in fish kills the following week.

- **TMDL Task Force** – Mr. Norton reported that the TMDL Task Force last met on August 11<sup>th</sup> to address future monitoring requirements for the lakes and the watershed, progress in a new agreement to fund the operation and maintenance of the Lake Elsinore aeration/mixing system that may involve the MS4 permittees, planning a TMDL basin plan amendment, and planning for future implementation activities at both lakes. Presentations were heard from interns with WRCAC regarding Mystic Lake and with Dr. Michael Anderson of UCR regarding some soil isotope studies on Lake Elsinore sediment. Dr. Anderson's report is scheduled to be complete in October 2015, and more direction on future lake improvements should be available from that study.

Regarding funding, LESJWA has now been able to invoice the State for portions of the grant funding obtained from DWR's Proposition 84 Chapter 2 Integrated Regional Water Management Implementation Round 2 grant funding. Due to delays by the State in executing the contract, only 3 of the 5 alum applications are grant reimbursable, which provides some remaining grant funds to help pay for future alum applications. It is thought that alum application will be important as a continued water quality improvement process at Canyon Lake to remove nutrients from the lake waters particularly if the El Nino rainstorms bring a great deal of stormwater and nutrients from the upper watershed into Canyon Lake.

## **5. Alum Outreach and Schedule**

- **Next CL Alum Application September 21-25, 2015**  
The alum application will occur on Sept. 21-25 with a Canyon Lake Public Outreach Workshop scheduled for Sept. 9<sup>th</sup> at the Canyon Lake City Council Chambers. Mr. Norton is working with the lake experts to provide an expert panel to answer any questions that the public might have.
- **Stakeholder Communication**  
Mr. Norton reported that a press release will be prepared by Liselle Degrave for the workshop. Past workshop flyers will be submitted to Liselle as reference. The press release would need to be shared with the Friday Flyer, the Press Enterprise and the Murrieta Patch.
- **Public Workshop**  
Mr. Norton also will be making PowerPoint presentations to the Canyon Lake POA on Sept. 1<sup>st</sup> and the Canyon Lake City Council on Sept. 2<sup>nd</sup> to discuss the Sept. alum application.

## **6. 2015-2016 PR Items**

- **Dr. Anderson Report**  
Mr. Norton indicated that the results from Dr. Anderson studies are now scheduled for October 2015. Thereafter, LESJWA would be better prepared to share what the future projects and next steps for the organization will be.

- **Reporter Briefings**

Mr. Norton said he can work with Liselle DeGrave on future briefings with reporters based on the Dr. Anderson study results after the results have been shared with the LE/CL TMDL Task Force. Liselle said she would like to prepare a briefing paper to reflect some of the successes of LESJWA. She reviewed the current LESJWA brochure and discussed improvements. She indicated that the infographic may be a good item to accompany the media briefings.

- **LESJWA Summit date**

The Committee discussed possible time frames for the LESJWA Summit and agreed that it would be best to wait to the spring of 2016. The timing was determined based on the timing of Dr. Anderson's study results in late October, briefing the Task Force on his results in November, elections of new task force agency governing board members in November, holiday season from Nov. –Dec and then determining the impacts of El Nino rain events, if they occur, on the lakes. Nicole said that it would be great to have a briefing letter and an invite for new elected officials possibly coming from the County Supervisors as well.

- **Draft LESJWA Communication Plan**

Liselle discussed the draft LESJWA Communication Plan, comments provided by Mark Norton to the draft, and how she might respond to each. The comments will be addressed and the plan will be revised and resent to the Committee for review.

- **Infographic**

Liselle described her interest in preparing an infographic for Lake Elsinore and Canyon Lake or both, and shared some examples of the type of infographic that she was contemplating. The Committee was supportive of this development.

- **Video Revisions**

Liselle discussed some video production quotes that she received from Ed Aguirre, Videographer, as well as another videographer that she has worked with, Samuel Wells. To modify the existing LESJWA video to replace the discussion by a former LESJWA Board Chair, the cost to film a new interview and splice it in would be about \$350. Another thought was to create an entirely new video that was focused on the Canyon Lake alum application process. Ed Aguirre indicated that he could provide such a video for \$2,228. Samuel Wells indicated that he could produce the Canyon Lake Alum video for \$1,600. After discussion, the Committee recommended that the old video just be slightly modified to Nancy Horton's title from "LESJWA Board Chair" to "Past LESJWA Board Chair". The committee was supportive of proceeding with the videographer that Liselle recommended based on cost. Liselle said that she would work on an outline of what the new video could cover and a more detailed and itemized cost estimate. It was thought that the new video could include interviews with some of the new LESJWA Board members not seen in the past LESJWA video, such as Riverside County Supervisor Kevin Jeffries, Vicki Warren, and Brenda Dennstedt.

7. **Next Meeting Date**

The next LESJWA Education and Outreach Committee is scheduled for Nov. 2, 2015 at 12 noon at EVMWD Conference room.


## Lake Elsinore San Jacinto Watersheds Authority Public Education and Outreach Program

### Monthly Activity Report August 2015

**During the month of August, DeGrave Communications conducted communication support for LESJWA, in accordance to the public education and outreach program contract set forth in the original proposal for services. The following includes a summary of all outreach efforts conducted on LESJWA's behalf.**

#### 1. Communication Support – September Alum Treatment

DeGrave Communications has supported LESJWA's communication outreach, regarding the September alum treatment. Communication outreach included, attending Canyon Lake alum application coordination meeting, drafting/finalizing news release, drafting/finalizing public notice, editing alum fact sheets, coordinating social media postings of news release on stakeholder social media sites, coordinating alum video shoot, creating alum workshop flyer and pitching media.



City of Lake Elsinore • City of Canyon Lake • County of Riverside  
Elsinore Valley Municipal Water District • Santa Ana Watershed Project Authority

**FOR IMMEDIATE RELEASE**  
August 31, 2015

**CONTACT:**  
Mark Norton  
951-354-4221

**Public Information Meeting Encourages Community Involvement**  
*Upcoming Canyon Lake alum application public information and outreach meeting welcomes community*

**Canyon Lake, CA** – Over the past two and a half years, the Lake Elsinore and Canyon Lake Total Maximum Daily Load (TMDL) Task Force has made significant strides in improving water quality in Canyon Lake through an alum treatment application. The fifth and final application, of this initial program, will take place from September 21-24. A public information and outreach meeting will take place on September 9, at 7:00 p.m. at Canyon Lake City Hall in the Council Chambers.

"Historically, Canyon Lake has been known to suffer from algae blooms. Because of nitrogen and phosphorus that enters the lake through water runoff, the lake suffers from an excess amount of nutrients. These nutrients encourage algae growth," shared Lake Elsinore & San Jacinto Watersheds Authority administrator Mark Norton. "When the alum is added to the lake it immediately binds to the phosphorus, which reduces the opportunity for algae growth."

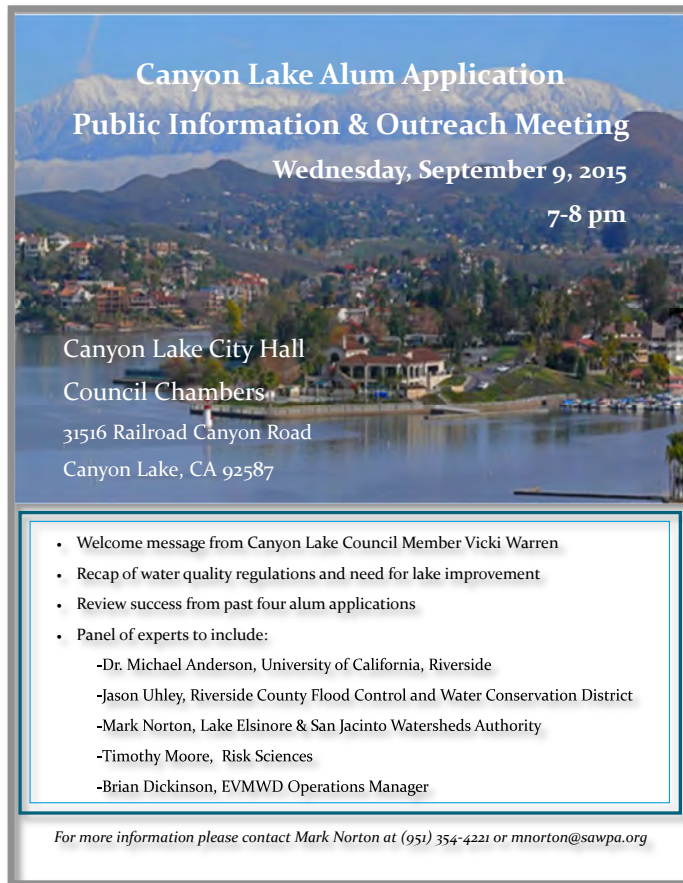
The public information and outreach meeting is intended to serve as a community workshop with panel experts, including Dr. Michael Anderson from the University of California Riverside, who has been studying the effects of the alum treatments in Canyon Lake. Residents will find out more information on how the overall quality and clarity of the water has improved, in addition to asking questions.

"The meeting is designed to encourage community involvement and keep Canyon Lake residents informed," stated Ariel Hall, interim city manager. "We welcome residents to take an interest in what happens in Canyon Lake and hear more from the panel of experts."

Following the fifth alum treatment, a preliminary report will be compiled to suggest next steps in improving conditions in Canyon Lake. While algae cannot be entirely eliminated, the alum applications have been proven effective and possible future alum treatments will likely be suggested.

Funding for the alum applications has been provided by a state grant and by the Lake Elsinore and Canyon Lake Total Maximum Daily Load (TMDL) Task Force, which consists of cities, the County of Riverside, agriculture and dairy coalitions and other organizations in the San Jacinto River watershed. Implementation of the alum project is being coordinated by the City of Canyon Lake, the Elsinore Valley Municipal Water District, LESJWA, the TMDL Task Force and the Canyon Lake Property Owners Association.

*LESJWA is a joint powers authority entrusted with state and local funds to improve water quality and wildlife habitats in Lake Elsinore, Canyon Lake and the surrounding San Jacinto watershed. For more information about LESJWA, please visit [www.mywatersheds.com](http://www.mywatersheds.com).*




**Canyon Lake Alum Application  
Public Information & Outreach Meeting**  
Wednesday, September 9, 2015  
7-8 pm

Canyon Lake City Hall  
Council Chambers  
31516 Railroad Canyon Road  
Canyon Lake, CA 92587

- Welcome message from Canyon Lake Council Member Vicki Warren
- Recap of water quality regulations and need for lake improvement
- Review success from past four alum applications
- Panel of experts to include:
  - Dr. Michael Anderson, University of California, Riverside
  - Jason Uhley, Riverside County Flood Control and Water Conservation District
  - Mark Norton, Lake Elsinore & San Jacinto Watersheds Authority
  - Timothy Moore, Risk Sciences
  - Brian Dickinson, EVMWD Operations Manager

*For more information please contact Mark Norton at (951) 354-4221 or [mnorton@sawpa.org](mailto:mnorton@sawpa.org)*



**ANNOUNCEMENT OF PUBLIC NOTICE TO CANYON LAKE COMMUNITY**

**Canyon Lake Alum Application Public Information and Outreach Meeting**

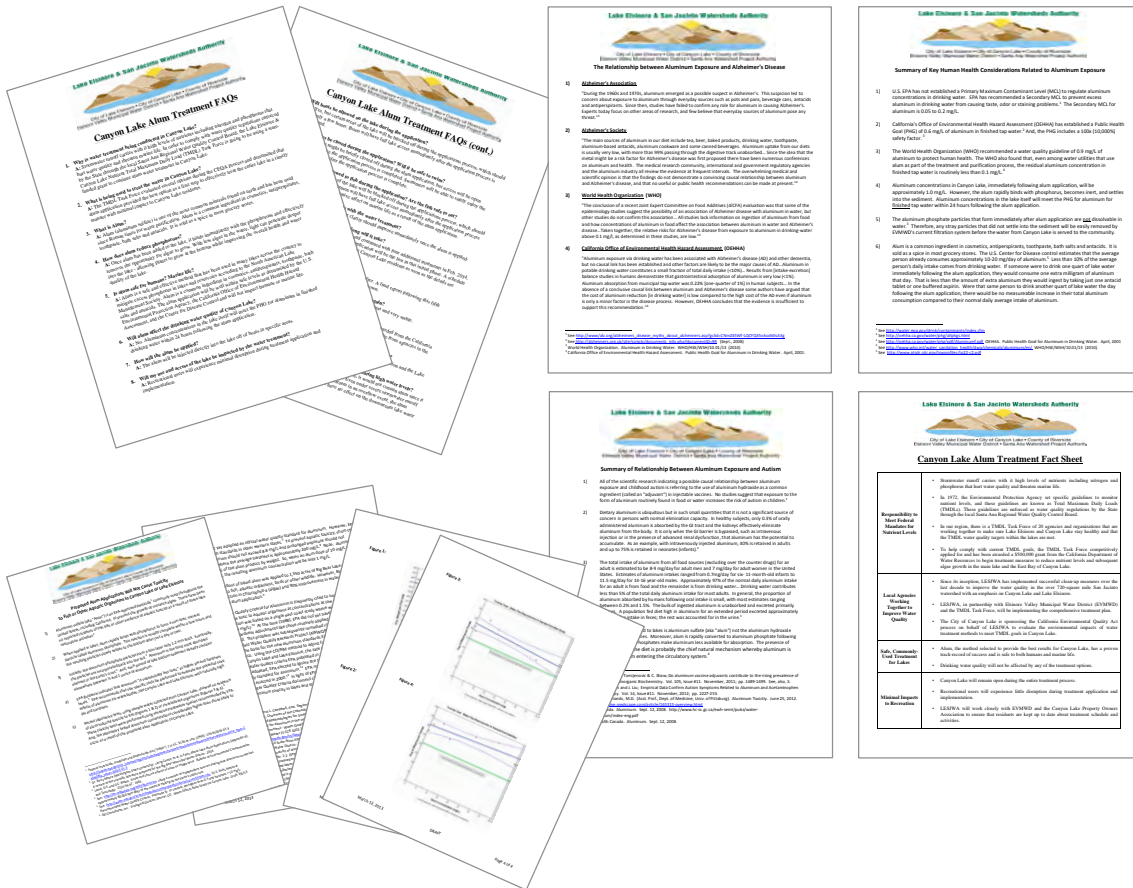
Lake Elsinore & San Jacinto Watersheds Authority (LESJWA), in partnership with City of Canyon Lake, invite members of the community to attend a public information and outreach workshop to better understand the fifth Canyon Lake alum application that will take place from September 21- 24. Attend to hear more information about the process, reasoning for applying alum and results from this past year's applications from lake experts. A recap of water quality regulations and the need for lake improvement will also be addressed.

Stormwater runoff carries with it high levels of nutrients including nitrogen and phosphorus that hurt water quality and threaten marine life. In order to comply with water quality regulations enforced by the State through the local Santa Ana Regional Water Quality Control Board, the Lake Elsinore & Canyon Lake Nutrient Total Maximum Daily Load (TMDL) Task Force has been using a state-funded grant to continue alum water treatments in Canyon Lake. The TMDL Task Force evaluated several options during the CEQA process and determined that alum application provides the best option as a step to effectively treat the entire lake in a timely manner with minimal impact to Canyon Lake residents.

**MEETING INFORMATION:**  
Wednesday, September 9, 2015 @ 7:00 p.m.  
City of Canyon Lake Council Chambers  
31516 Railroad Canyon Road  
Canyon Lake, CA 92587

**ADDITIONAL INFORMATION:**  
Mark Norton, Lake Elsinore & San Jacinto Watershed Authority  
951-354-4221  
[MNorton@sawpa.org](mailto:MNorton@sawpa.org)





## 2. Lake Watch 2015 Support

In early August, DeGrave Communications continued to partner with City of Lake Elsinore to provide services, on behalf of LESJWA, to support the Lake Watch 2015 campaign. With the unstable ecosystem in the Lake, in addition to the over abundance of Shad, the probability for continued fish kills is high. With the Lake Watch 2015 volunteer form posted to [www.mywatersheds.com](http://www.mywatersheds.com), DeGrave Communications has sent timely updates to Lake Elsinore when new volunteers have signed up. DeGrave Communications has worked with LESJWA and Lake Elsinore to draft and finalize a Fish Kill 2015 Q&A. Additionally, a news release prepping for a possible Stage 3 alert was created. The news release has not yet been utilized, but has been prepared if needed.



**Fish Kill – Q&A**

**What is a fish kill?**  
A fish kill, also known as a die-off, is one of the first visible signs of environmental stress. Hundreds to thousands of dead fish are found floating on the surface of water or washed up on the shore.

**What causes a fish kill?**  
The most common cause of a fish kill is the depletion of dissolved oxygen in a body of water. Fish kills are caused by naturally occurring conditions, algae, weather, low lake levels and abundance of carp/fish.

**How does algae growth affect a fish kill?**  
Phosphorus and nitrogen flows into Lake Elsinore from the Lake Elsinore and San Jacinto Watersheds; algae use these nutrients to grow. Like all green plants, algae produce oxygen during the daylight hours as a by-product of photosynthesis. However, when light levels drop, water temperature increases or nutrients are used up, the algae release carbon dioxide and stop releasing oxygen. Soon they begin to consume more oxygen than they release. This can also result in algae blooms die off, leading to bacterial decomposition and lower oxygen levels in the lake and suffocating the fish.

**Has anything been done to improve water quality in Lake Elsinore?**  
As a natural lake, Lake Elsinore has always faced challenging circumstances. From drought, low lake levels, fish kills, flooding and an overabundance of nutrients, Lake Elsinore is in a constant battle to remain balanced.

In 2000, following the passing of Proposition 13 Water Bond, the Lake Elsinore & San Jacinto Watersheds Authority (LESJWA) was formed to improve the water quality and ecosystems in the watersheds, including Lake Elsinore. Over the past fifteen years, LESJWA, in partnership with City of Lake Elsinore, have made significant progress in improving lake conditions. Some of LESJWA's projects include: carp removal, improvements to the Island Wells Pump Station, striped bass stocking, destratification, recycled water nutrient removal, lake habitat improvements and installing an aeration system.

**Why won't the aeration system prevent a fish kill?**  
The Lake Elsinore's aeration system seeks to boost oxygen levels in the lake by promoting the circulation and mixing of existing oxygen in the lake water. The mixing system accomplishes its purpose by injecting air into diffused aeration lines spaced across the bottom of the lake and also by pushing the more oxygen rich water down to lower depths. This in turn minimizes the frequency and severity of a fish kill. While the aeration system has benefited Lake Elsinore, it is not a guarantee that a fish kill will not occur. The aeration process is a mixing system and in certain situations when dissolved oxygen is not high enough in the upper levels of the lake's water column, there may not be enough dissolved oxygen in the water column to keep bottom dwelling fish, such as shad, alive no matter how much mixing occurs.

**How do shad affect a fish kill?**  
Shad are tiny fish that actually hurts water quality by eating the beneficial microscopic zooplankton, which consume algae. Lake Elsinore currently has an over abundance of Shad living in the lake. With shad over feeding on the available zooplankton in the lake, conditions result that increase the number of algae blooms and die-off cycling, thus reducing dissolved oxygen.

**Why is Lake Elsinore experiencing fish kills this summer?**  
A combination of extreme heat, low water levels due to the drought and an over abundance of shad residing in the lake, has resulted in some minor fish die off episodes this summer.

**Is it safe to swim in the water when fish kills occur?**  
There are no health risks associated with recreational use of the lake during a fish kill. If a fish kills occurs, dead fish will be removed from the lake prior to their decomposition and regular recreational activities can resume immediately.

**How have this summer's fish kills been handled?**  
In an effort to be proactive and prepared, the City in partnership with LESJWA, created a campaign titled, *Lake Watch 2015*, which kicked off in early July 2015 to communicate with the community about the increased risk for a potential fish kill. The campaign creates awareness about what is taking place at the lake and how they can be a part of the solution.


Additionally, City of Lake Elsinore has taken measures to plan ahead for fish kills as they occur by securing stand-by, cleanup crews for a timely removal of fish carcass. The City has contacted local authorities and made the potential situation known. As fish kills occur, emergency personnel are prepared to aid in the cleanup process. Following the recent fish kills this summer, City staff

have partnered with local organizations and community volunteers to clean up any fish that are found floating on the surface of the water and on shore within 24 hours.

**What can residents do to help?**  
Residents are being asked to notify the City if they notice dead fish washed on shore or floating dead fish on the surface of the lake. Residents can call (951) 674-3124 ext. 304 or email [perc@lake-elsinore.org](mailto:perc@lake-elsinore.org) if they notice signs of a fish kill.

### 3. Media Monitoring

The following are articles related to the recent fish kills at Lake Elsinore. These articles were not secured by DeGrave Communications, but are being included because they are relevant to LESJWA. These articles have resulted from media outreach relating to the Lake Watch 2015 campaign.



## News

### City Suffers Minor Fish Die Off, Issues Stage 1 Lake Watch Alert Seeking Community Support

Join us to prepare, preserve and protect Lake Elsinore.  
Posted Date: 8/4/2015 4:30 PM

The City of Lake Elsinore, in partnership with the [Lake Elsinore & San Jacinto Watershed Authority](#), has announced a **Stage 1 Lake Watch Alert** to put everyone on high alert about the increased vulnerability for a fish die off in Lake Elsinore. Today, the City experienced a minor fish kill. City staff identified and removed approximately 600 to 1,000 lbs. of dead fish. A majority of which were large carp and threadfin shad.

Today's minor fish kill is direct result of the low water levels due to the drought, the increasingly hot temperatures during the day and night, a fishery imbalance and declining dissolved oxygen levels for a sustained period of time. Current conditions are a direct threat to the vitality of the fishery and ecology of the lake.

**As part of Stage 1, the City is asking our regional partners, businesses, community groups and residents to be engaged and prepared.** The City is seeking your support and help should we suffer a major fish kill by signing up to help at [www.lake-elsinore.org](http://www.lake-elsinore.org), [www.mywatersheds.com](http://www.mywatersheds.com) or directly at [https://docs.google.com/a/pepperdine.edu/forms/d/1s4Zl-MBgGWedP\\_2Pk1bQX4J2qlg0OOQ39DaiQk2HOJE/viewform?c=0&w=1](https://docs.google.com/a/pepperdine.edu/forms/d/1s4Zl-MBgGWedP_2Pk1bQX4J2qlg0OOQ39DaiQk2HOJE/viewform?c=0&w=1).

Find out more about Lake Watch 2015 at <http://www.mywatersheds.com/lake-watch-2015/>.

# THE PRESS-ENTERPRISE

NEWS

## LAKE ELSINORE: Imminent fish die-off feared

*The city considers launching a public education campaign and enlisting the community's help in emergency cleanup efforts.*

BY MICHAEL J. WILLIAMS / STAFF WRITER

Published: July 13, 2015 Updated: July 14, 2015 3:26 p.m.

### LAKE WATCH 2015

**What:** Among numerous issues, Lake Elsinore City Council members are scheduled to consider a public campaign to keep Lake Elsinore healthy

**When:** 7 p.m. Tuesday, July 14

**Where:** Lake Elsinore Cultural Center, 183 N. Main St.

**Info:** 951-674-3124 or michaelwilliams@pe.com

Conditions within Lake Elsinore's namesake lake are provoking concerns the water body is on the verge of a massive minnow die-off.

With that possibility imminent, the City Council is expected to consider a proposal Tuesday, July 14, to launch a public awareness campaign aimed at educating the community to the situation and enlisting its help in emergency cleanup efforts.

"We want to try to engage (residents) to learn about the sensitive nature of the lake and to ask their support this summer as we watch the lake carefully for signs of a potential fish die-off," said Lake Elsinore Management Analyst Nicole Dailey, who is organizing the campaign dubbed Lake Watch 2015. "Ultimately, if one occurs, we'd like the community to come out and help be a part in protecting and preserving our lake."

The heightened concerns stem from observations by marine biologist Michael Anderson amid an ongoing study of the lake. Anderson is expected to deliver a presentation on his findings to the council, when it meets at 7 p.m. in the Cultural Center, 183 N. Main St.

Anderson found the lake has experienced a huge increase in threadfin shad minnows, Dailey said. According to his findings, there are about 56,000 fish per acre, of which 80 percent to 90 percent are shad. The minnows feed on zooplankton that help control the lake's algae content.

As a result of the overpopulation, the lake is more vulnerable to algae blooms. Minnows are prone to die when conditions turn unfavorable.

"The threadfin shad are so sensitive, they're the ones that go belly-up first," said Mark Norton of the Lake Elsinore & San Jacinto Watershed Authority, a coalition of agencies.

The last major die-off occurred in 2009. While the carcasses washing up on shore and their odor are disagreeable, the lake's caretakers say it's nature's way of balancing the lake's ecology.

Through the Lake Watch campaign, Dailey said, the city hopes to minimize the effects of a fish kill by disposing of the dead fish as quickly as possible.

With about 3,000 surface acres, Lake Elsinore is Southern California's largest natural, freshwater body, but it has been known to dry up during droughts.

In recent years, the lake's overseers have taken measures – including replenishment with recycled water and an aeration mixing system – to stabilize conditions.

The efforts, however, don't completely offset evaporation and the resulting deterioration. To be replenished, there needs to be enough rainfall to overflow the Canyon Lake Dam upstream.

"We really needed some stormwater to come down from the San Jacinto River and overflow the dam ... and that didn't happen," Norton said. "We've got the recycled water going in, and it's valuable and important, but it's not enough to offset the evaporation."

The lake is down to an altitude of about 1,237 feet above sea level, 3 feet lower than what is considered to be minimal level for optimal health. Depths are down to about 10 to 20 feet.

Pete Dawson, who runs a boat repair shop in Lakeland Village, recently said his business is thriving because of the conditions. More boaters are incurring mishaps because of the lower water level. As a fervent lake supporter, though, he would prefer it to be in good shape.

He hopes this winter will bring bountiful rains, an observation reiterated by Norton. Meteorologists have forecast an El Niño cycle in the Pacific Ocean that often propels storms to the West Coast.

Contact the writer: 951-368-9690 or michaelwilliams@pe.com



# THE PRESS-ENTERPRISE

NEWS

## LAKE ELSINORE: Lake experiences fish die-off

*Event caused by high heat combined with low water level and minnow overpopulation, officials say.*

    8

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BY MICHAEL J. WILLIAMS / STAFF WRITER

*Published: Aug. 4, 2015 Updated: 10:57 p.m.*

Amid a heat wave, Lake Elsinore experienced its first fish die-off in several years Tuesday, Aug. 4, but city workers in conjunction with contractors had removed most of the carcasses by late afternoon.

Earlier in the day, a dead or dying carp could be seen about every 50 feet along the shore at Elm Grove Beach on the northeast side of the lake, said Garrett Brown of All Day Jet Ski.

"But I wouldn't call it a fish-kill like we've seen in the past," said Brown, alluding to one in 2009 in which millions of threadfin shad minnows piled upon the shore, creating a stench for several days.

He praised the city for getting on top of the event early in the morning and removing the dead fish, which officials said were mostly carp and shad.

Others around the lake said they didn't realize what had occurred.

"We didn't see any of that going on," said Debbie Vigil, who lives in a lakefront apartment on the northwest shore. "But we do notice a fishy smell."

Tony Gamez said he noticed a few floating fish when he rode his Sea-Doo out from La Laguna Resort's beach on the northeast side of the lake.

"It wasn't enough to bother us," he said.

City Management Analyst Nicole Dailey said workers collected from 500 to 600 pounds of fish, about half of what had been anticipated earlier in the day.

"We've had a minor fish kill," she said. "It's something that's probably more common in lakes than people realize."

She said lake observers attributed the incident to declining oxygen levels in the water resulting from the drought and high temperatures persisting into the night. The lake, which averages 3,000 surface acres, did not appear to be experiencing a major algae bloom, she said.

With Southern California's largest, natural freshwater body dropping to its lowest level in years and containing a vast overabundance of shad, lake analysts warned recently conditions were ripe for a fish kill.

"At this point, I would say we're definitely seeing signs of vulnerability and significant signs of distress from the fish," Dailey said. "We're seeing them coming up to the surface gasping."

With temperatures expected to reach into the 100s again Wednesday, Aug. 5, Dailey said, the city planned to have someone on the lake Tuesday night monitoring conditions and would have staff on hand starting at 5 a.m. in case the die off continues.

Anticipating problems, the city put into effect a program called Lake Watch 2015 to be prepared for such an incident and to enlist community support in responding to it.

To learn more about the program, visit the city's website at [lake-elsinore.org](http://lake-elsinore.org).

Contact the writer: 951-368-9690 or [michaelwilliams@pe.com](mailto:michaelwilliams@pe.com)

**CBS Los Angeles**

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NEWSRADIO

*Local*

## Up To 1,000 Pounds Of Dead Fish Removed From Lake Elsinore

August 5, 2015 1:36 PM

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(credit: City of Lake Elsinore)

**LAKE ELSINORE (CBSLA.com)** — Up to 1,000 pounds of dead fish had to be removed from Lake Elsinore this week because of low water levels due to the drought, increasingly hot temperatures and other conditions, city officials said.

Lake Elsinore city officials, who announced a Stage 1 Lake Watch Alert because of the increased vulnerability for a fish die-off, removed between 600 and 1,000 pounds of mostly large carp and threadfin shad from the lake Tuesday.

Tuesday's minor fish kill is a direct result of low water levels, increasingly hot temperatures during the day and night, a fishery imbalance and declining dissolved oxygen levels for a sustained period of time, city officials said.

"At this time, the fish die off has been very minor and our teams have done a tremendous job of removing the fish as quickly as possible," Senior Management Analyst Nicole Dailey said.

With the lake watch alert, city officials say they hope to engage the community and solicit help should the lake suffer a major fish kill this summer.

# THE SACRAMENTO BEE

CALIFORNIA AUGUST 5, 2015

## Drought, heat may be killing fish at Lake Elsinore



*The Associated Press*



LAKE ELSINORE, CALIF. — Experts say California's long drought and summer heat may be killing fish in Lake Elsinore.



The Riverside Press-Enterprise (<http://bit.ly/1M5Q5Bb>) says about 1,000 pounds of carp, bass and other fish were scooped out of the lake east of Los Angeles on Tuesday and Wednesday.



Experts last month had predicted a massive die-off was coming because of an overpopulation of threadfin shad minnows, which eat tiny critters that help control algae content.



The resulting algae blooms can deplete oxygen and suffocate fish.

Mike Giusti, a state fish and game scientist, says the 3,000-acre freshwater lake is shallow and that's contributed to the problem.

The lake depth has dropped to no more than 20 feet because of the drought.

The last major die-off at the lake was in 2009.

## San Francisco Chronicle

NEWS

## Drought, heat may be killing fish at Lake Elsinore

August 5, 2015



LAKE ELSINORE, Calif. (AP) — Experts say California's long drought and summer heat may be killing fish in Lake Elsinore.



## The San Diego Union-Tribune

NEWS

### City braces for fish die-off expected in Lake Elsinore

By Associated Press | 10:21 a.m. July 14, 2015

LAKE ELSINORE, Calif. (AP) — Officials in Lake Elsinore hope to enlist residents to help clean up the city's namesake lake with a massive fish die-off expected.

The City Council will consider a proposal Tuesday to launch a public awareness campaign aimed at educating the community about conditions at the lake.

The Riverside Press-Enterprise reports (<http://bit.ly/1O3YsMt>) marine biologist Michael Anderson found an overpopulation of threadfin shad minnows is making the lake more vulnerable to algae blooms. That's because minnows eat zooplankton that help control algae content.

Officials say the minnows are prone to die when conditions turn unfavorable.

Through the "Lake Watch" campaign, the city hopes to minimize the effects of a fish kill by disposing of the dead fish as quickly as possible.

The last major die-off at Lake Elsinore occurred in 2009.

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Information from: The Press-Enterprise, <http://www.pe.com>

## The Washington Times

### Drought, heat may be killing fish at Lake Elsinore

By - Associated Press - Wednesday, August 5, 2015

LAKE ELSINORE, Calif. (AP) - Experts say California's long drought and summer heat may be killing fish in Lake Elsinore.

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## Drought, heat may be killing fish at Lake Elsinore

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The lake depth has dropped to no more than 20 feet because of the drought.

The last major die-off at the lake was in 2009.




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Information from: The Press-Enterprise, <http://www.pe.com>

Lodi News-Sentinel  
**lodinews.com**

Home ▶ California & U.S. News ▶ California News

## Drought, heat may be killing fish at Lake Elsinore

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Posted: Wednesday, August 5, 2015 5:22 pm

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The Riverside Press-Enterprise (<http://bit.ly/1M5Q5Bb>) says about 1,000 pounds of carp, bass and other fish were scooped out of the lake east of Los Angeles on Tuesday and Wednesday.

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The last major die-off at the lake was in 2009.

## **LESJWA BOARD MEMORANDUM NO. 775**

**DATE:** October 29, 2015

**SUBJECT:** Canyon Lake Alum Application Status

**TO:** Board of Directors

**FROM:** Mark R. Norton, P.E., Authority Administrator

### **RECOMMENDATION**

Staff recommends that the Board of Directors receive and file a status report for the Canyon Lake Alum Application.

### **BACKGROUND**

On September 21st through 25th, the fall application of alum to Canyon Lake was conducted. As recommended by the Canyon Lake TMDL TAC, both the main body and East Bay of Canyon Lake were treated. Dosage levels were adjusted based on the most up-to-date bathymetric survey obtained from Dr. Anderson's analysis of Canyon Lake. The dosage levels were applied at levels that met the maximum under CEQA at 25 mg/L in the main body, and the 40 mg/L for the East Bay. Laboratory analysis of the lake waters was conducted as in previous applications.

Analysis has been conducted on the lake quality improvement to date due to the Canyon Lake alum application over the past 2 ½ years. Attached is a justification report for continuing the alum in Canyon Lake as prepared by Tim Moore, Risk Sciences, who serves as the regulatory advisor for the LE/CL TMDL Task Force. In anticipation of the need to continue the alum application, a CEQA update is underway. Funding for two more alum applications is available from the Prop 84 Round 2 grant. The consensus from the LE/CL TMDL Task Force is to continue the alum application in Canyon Lake to support progress made to date for TMDL compliance. Matching funds to the available grant funds for the alum application for the coming year has been budgeted.

In August 2015, the results in the East Bay become even more evident with many testimonials from local residents that the water quality had improved dramatically. The positive water quality results were shared with the media and are reflected in the attached news article.

### **DISCUSSION**

A PowerPoint presentation by Mr. Norton will be provided to the LESJWA Board to discuss the positive results of the alum application.

### **RESOURCES IMPACT**

All staff time associated with the Canyon Lake alum application has been budgeted under the LE/CL TMDL Task Force budget that also is shown in the LESJWA budget.

MN/dm

Attachment:

1. Justification
2. Press Enterprise Article

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## Justification for Extending and Expanding the Pilot Alum Application Program in Canyon Lake

In September of 2013, stakeholders in the San Jacinto River watershed initiated a pilot program to apply aluminum sulfate ("alum") in Canyon Lake. The purpose of this program was to evaluate the efficacy of using alum to reduce phosphorus concentrations lake and thereby prevent the growth of excess algae in the lake.

The pilot program was scheduled to apply approximately 840 tons of alum to the lake in five separate events spread over 25 months. The final alum application for the pilot program occurred in September of 2015.

Throughout the pilot project, routine water quality monitoring was performed to assess the effectiveness of the program. Each ton of phosphorus is expected to neutralize at least nine pounds of phosphorus. Therefore, the pilot alum application program sequestered more than 7,600 pounds of phosphorus. Preliminary water quality monitoring data confirms that average phosphorus concentrations have declined significantly. By mid-2015, the Main Body of Canyon Lake was already meeting the TMDL target for total phosphorus (0.1 mg/L) five years ahead of the regulatory deadline. And, the East Bay was almost there as well (see Fig. 1).

**Fig. 1: Long-term Trends for Average Phosphorus Concentrations in Canyon Lake**



Reducing the bioavailable phosphorus concentrations in the water column is expected to reduce algae levels in the lake. Data from the water quality monitoring program confirms that this is, in fact, occurring (see Table 1). Average Chlorophyll-a concentrations in the Main Body have fallen 27% in the Main Body and 37% in the East Bay. And, as a result water clarity is improving dramatically throughout Canyon Lake (see Fig. 2).

**Table 1: Average Chlorophyll-a Concentrations in Canyon Lake**

Chlorophyll-A	Main Body	East Bay
2011-12	48 mg/L	81 mg/L
2014-15*	35 mg/L	51 mg/L
Algae Reduction	13 mg/L	30 mg/L
Pct. Improvement	27%	37%

*\*Results reflect measured Chlorophyll-a concentrations thru May of 2015 but do not yet include further reductions likely to occur following the fifth alum application in September of 2015.*

**Fig. 2: Long-term Trends for Water Clarity in Canyon Lake\*\***



*\*\*Average water clarity calculated thru August of 2015 and does not include further improvements likely to occur following the fifth alum application in September of 2015.*

The Main Body of Canyon Lake is meeting the TMDL's 2015 target of 40 mg/L for Chlorophyll-a. The East Bay will be close but may not meet the same target. The summertime average Chlorophyll-a concentration for the entire lake must be at or below 25 mg/L by December 31, 2020. Additional alum applications will be necessary to meet the final TMDL target.

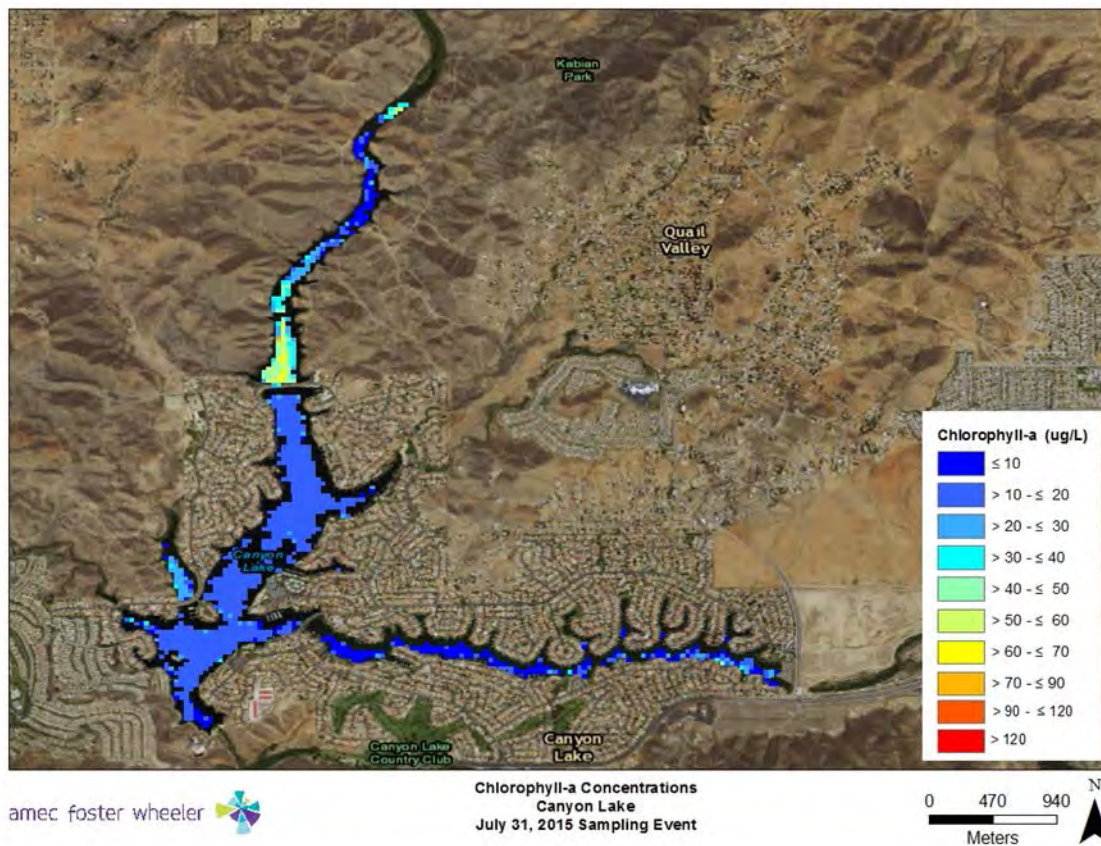
In addition, Dr. Michael Anderson of U.C.-Riverside estimates that the pilot program will sequester approximately 30% of the bioavailable phosphorus in Canyon Lake. Additional alum application will be required in order to neutralize the legacy phosphorus load cycling out of the sediments.

Results from the pre- and post-project water quality monitoring program show that regular alum applications are significantly reducing average phosphorus and Chlorophyll-a concentrations in the lake while dramatically improving water clarity. This empirical evidence is sufficient to demonstrate that the pilot project should be extended to allow, but not require, additional alum applications for the next 10 years.

In addition, the program should be expanded to allow alum applications throughout the entire surface area of Canyon Lake. The original pilot project inadvertently excluded area of the lake above the north causeway. And, recent satellite monitoring data shows this is the only area of Canyon Lake with elevated Chlorophyll-a concentrations (see Fig. 3).

**Fig. 3: Satellite Assessment of Chlorophyll-a Concentrations in Canyon Lake**







# Treatments that bring clarity to Canyon Lake's water called 'amazing'

Series of treatments intended to reduce nutrients and fight algae

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BY MICHAEL J. WILLIAMS / STAFF WRITER

Published: Sept. 24, 2015 Updated: 5:03 p.m.



COURTESY OF AQUATECHNEX

## ALUM TREATMENTS

**What:** The fifth and final treatment of Canyon Lake with alum ends today.

**Purpose:** Infusing the lake with alum reduces algae content and improves clarity.

**How:** Alum molecules bond with algae-feeding phosphorus and drop to the bottom of the lake, rendering the nutrient inactive.

**Who:** The Lake Elsinore & San Jacinto Watersheds Authority used a state grant to hire Aquatechnex to do the work.

**Info:**  
[canyonlakealum.wordpress.com](http://canyonlakealum.wordpress.com)

A series of alum applications launched in Canyon Lake 2 1/2 years ago is expected to wrap up today, and lake observers say the doses appear to have been effective.

"I cannot say enough about how much it has improved the clarity of our water and the quality of our water," said Canyon Lake Councilwoman Vicki Warren, the city's representative to the Lake Elsinore and San Jacinto Watersheds Authority.

Warren said she last visited the lake Sunday.

"When you empty out a bottle of water and refill it with lake water, you cannot tell the difference," she said. "It's amazing."

While it will take months for marine biologists to analyze samples and deliver a full report on the results, empirical evidence suggests the treatments dating from September 2013 have succeeded in lowering the lake's level of algae-feeding phosphorus, said authority administrator Mark Norton. He expects the doses to resume.

"This is our fifth and final one for this pilot stage," Norton said. "It is very likely that alum applications will continue as a lake quality improvement strategy for the future.

That's my guess, based on the results that we're seeing."

Canyon Lake is typically prone to algae blooms spurred by phosphorus. The 380-acre lake, as well as Lake Elsinore, both in the San Jacinto River basin, have been classified by state water officials as impaired because of high levels of silt and nutrients, including phosphorus, suspended in their waters.

As a water purification agent, alum binds with phosphorus molecules, dragging them to the lake bottom and rendering them inert. The mineral has been used in cleaning up lakes throughout the country, including Big Bear Lake and Laguna Niguel Lake.

To address Canyon Lake's phosphorus content, the authority sought and won a half-million dollar grant from the state Department of Water Resources to finance the alum infusions.

The authority hired Aquatechnex to do the work, a process that takes up to four days each round. Other treatments occurred in the spring and fall 2014 and in April.

"Based on what we've seen from past applications, there have been remarkable improvements in reduced nutrients and water clarity," Norton said.

The authority was formed in 2000 with the goal of improving water quality and wildlife habitats in the watershed.

**Contact the writer:** 951-368-9690 or [michaelwilliams@pe.com](mailto:michaelwilliams@pe.com)

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## **LESJWA BOARD MEMORANDUM NO. 776**

**DATE:** October 29, 2015

**SUBJECT:** Canyon Lake Hybrid Treatment Project – Phase 1 Alum Dosing

**TO:** Board of Directors

**FROM:** Mark R. Norton, P.E., Authority Administrator

### **RECOMMENDATION**

The Lake Elsinore & Canyon Lake Nutrient TMDL Technical Advisory Committee recommends that the Board of Directors approve Change Order No. 1 to Task Order AQUA160-01 with AquaTechnex, LLC for an amount not-to-exceed \$210,000 to implement additional alum dosing in Canyon Lake, as part of the Proposition 84 grant funded Phase 1- Canyon Lake Hybrid Treatment Project.

### **DISCUSSION**

The Change Order with AquaTechnex, LLC implements additional alum dosing in Canyon Lake using available Prop 84, Round 2 grant funding to support stakeholders in the implementation of the Lake Elsinore & Canyon Lake Nutrient TMDL.

Following the successful completion of the five planned alum treatments to Canyon Lake by AquaTechnex, LLC, the LE/CL TMDL Task Force wishes to apply remaining Prop 84, Round 2 grant funds toward additional alum applications as outlined in the grant agreement. The task order reflects a cost of \$210,000 for the two additional alum applications in 2016 with \$170,000 being funded by remaining available Prop 84, Round 2 grant funds.

The availability of remaining Prop 84, Round 2 grant funding for this project, estimated at \$170,000 of the original grant award of \$500,000, became available since there were delays by the State in appropriating funds for this funding round. As a result, only expenses incurred after February 4, 2014 are eligible for Round 2 grant reimbursement. This caused the majority of the work associated with the first two alum applications conducted in September 2013 and February 2014 from being eligible for Prop 84, Round 2 grant reimbursement. Only the remaining three alum applications of the 2 ½ year, five-application trial period project were funded by the Round 2 grant.

For 2016, any portion of the alum treatment costs not covered by the grant will be provided by stakeholders participating in the Canyon Lake Alum Treatment Project.

### **BACKGROUND**

In May 2013, the members of the Task Force recommended the selection of AquaTechnex, LLC to implement alum dosing in Canyon Lake to support the Lake Elsinore & Canyon Lake Nutrient Total Maximum Daily Load (TMDL) in response to a request for proposals.

Two proposals were received from the solicitation, Aquatechnex LLC and Marino Biochemists. A technical review committee composed of representatives from EVMWD, City of Canyon Lake, Riverside County Flood Control and Water Conservations District, and LESJWA met on June 12, 2013. A rating and ranking form was used for a preliminary assessment based on a qualification-based selection rather than on a low bid cost selection. Based on the review of the criteria indicated in the RFP, AquaTechnex, LLC was selected by a proposal technical review committee composed of task force agencies. The selection was based upon the consultant's approach to the tasks, technical expertise, previous work experience with the Task Force, and costs to conduct the work laid out in their proposal.

The Task Order with AquaTechnex,LLC will be to implement alum dosing in Canyon Lake to support the Lake Elsinore & Canyon Lake Nutrient TMDL, as highlighted below:

Canyon Lake Alum Dosing

- Coordination Meetings to Develop Treatment and Safety Plans
- 5 Alum Treatments (the first scheduled for September 2013)
- Final Project Report

**RESOURCES IMPACT**

All staff administration time for the RFP has been budgeted under the LE/CL TMDL Task Force budget that is also shown in the LESJWA budget.

MN:dm

Attachments:

1. Change Order No. 1 to Task Order AQUA160-01/Cost Estimate

# LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY

## CHANGE ORDER NO. 1 To Task Order No. AQUA160-01

**CONSULTANT:** AquaTechnex, LLC  
P.O. Box 4193  
Palm Desert, CA 92261

**VENDOR NO.** 1727

**PROJECT:** Canyon Lake Hybrid Treatment – Phase 1

**COST:** Not-to-exceed \$210,000

**REQUESTED BY:** Rick Whetsel, Senior Watershed Manager      October 29, 2015

**FINANCE:** \_\_\_\_\_  
Karen Williams, CFO      Date

**FINANCING SOURCE:** Acct. Coding: 160-TMDL-6113-01  
Acct. Description: General Consulting

**BOARD AUTHORIZATION REQUIRED:** YES (X)      NO ( )  
*Board Memo No. LES776*

Contractor is hereby directed to provide the extra work necessary to comply with this change order.

**DESCRIPTION / JUSTIFICATION OF CHANGE:** Consultant to complete two additional aluminum sulfate treatments in the spring and fall of 2016 as directed by the Lake Elsinore & San Jacinto Watersheds Authority. The timing of the applications and the doses will be confirmed with the Authority through their consultants and communicated to AquaTechnex, LLC. AquaTechnex will coordinate the application with the Canyon Lake Property Owners Association and security personnel at the lake.

**CHANGE IN CONTRACT TIME:** December 31, 2016

<b>CHANGE IN TASK ORDER PRICE:</b>	Original Task Order Amount:	\$488,490
	Change Order No. 1 Amount:	<u>\$210,000</u>
	Amended Contract Total:	\$698,490

**ACCEPTANCE:**

Contractor accepts the terms and conditions stated above as full and final settlement of any claims arising from or related to this Change Order. Contractor agrees to perform the above described work in accordance with the above terms and in compliance with applicable sections of the Contract Specifications. This Change Order is hereby agreed to, accepted and approved, all in accordance with the General Provisions of the Contract Specifications.

**LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY**

\_\_\_\_\_  
Robert Magee, LESJWA Chair      Date

**AQUATECHNEX, LLC**

\_\_\_\_\_  
(Signature)      Date

\_\_\_\_\_  
Typed/Printed Name

# Change Order Cost Estimate, Canyon Lake Alum Treatment Project

10/8/2015

## Aquatechnex - Terry McNabb

Task	Estimated Cost	Unit Costs
Mobilize for Spring treatment	\$1,000.00	Time and materials
84,000 gallons alum at \$1.07 per gallon	\$89,880.00	General Chemical Performance Products Cost
	\$7,190.40	tax (8%)
Whole Lake Application Cost for equipment, labor and travel/lodging	\$23,500.00	Lump sum
Demobilization	\$500.00	Time and materials

Mobilize for Spring treatment	\$1,000.00	Time and materials
54,000 gallons alum at \$1.07 per gallon	\$57,780.00	General Chemical Performance Products Cost
	\$4,622.40	tax (8%)
Whole Lake Application Cost for equipment, labor and travel/lodging	\$23,500.00	Lump sum
Demobilization	\$500.00	Time and materials

**Estimated Total      \$209,472.80**

## **LESJWA BOARD MEMORANDUM NO. 777**

**DATE:** October 29, 2015

**SUBJECT:** Lake Elsinore Lake Watch Program Status Report

**TO:** LESJWA Board of Directors

**FROM:** Mark R. Norton, P.E., Authority Administrator

### **RECOMMENDATION**

Staff recommends that the Board of Directors receive and file a status report about the Lake Elsinore lake watch program.

### **BACKGROUND**

In June 2015, the City of Lake Elsinore working closely with LESJWA kicked off a new outreach program called the Lake Elsinore Lake Watch program. The program reflects a partnership between the City and LESJWA to proactively prepare for a fish kill. The program seeks to engage and create awareness about the 1) Vulnerability of Lake Elsinore, 2) Reasons for fish kills, 3) Overall ecology of the lake, 4) Successful projects to-date, and 5) Seek community and volunteer support.

This program was important in light of warnings from Dr. Michael Anderson that based on acoustic surveys conducted for LESJWA on Lake Elsinore, there was a huge surplus of threadfin shad in Lake Elsinore, and with projections of a hot summer, fish kills were likely in the late summer. Die offs did occur, but fortunately not to the scale from the early 1990s. It is most likely that this is due to the Lake Elsinore aeration system implemented by LESJWA in 2007.

Nicole Dailey, Management Analyst at the City of Lake Elsinore, and a member of the LESJWA Education and Outreach Committee will provide a presentation about the recent Lake Elsinore Lake Watch program and the status of recent die offs to date in Lake Elsinore.

### **BUDGET IMPACT**

No impact.

MN:dm

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## **LESJWA BOARD MEMORANDUM NO. 778**

**DATE:** October 29, 2015

**SUBJECT:** TMDL Task Force Status Report

**TO:** LESJWA Board of Directors

**FROM:** Mark R. Norton, P.E., Authority Administrator

### **RECOMMENDATION**

That the Board of Directors receive and file this status report on the Lake Elsinore and Canyon Lake TMDL Task Force.

### **BACKGROUND**

The Lake Elsinore and Canyon Lake TMDL Task Force has now entered a new phase of activity with the start of a new monitoring program for both lakes and the watershed using AMEC, concluding our successful trial period of alum application for Canyon Lake and commencing the TMDL revision phase. This will involve several new RFPs and consultant services over the next few fiscal years. Funding for this work will be coming from the Task Force and administered through LESJWA.

Work continues by Dr. Michael Anderson of UCR on his analysis of both lakes and answering questions that will be important to the TMDL revision. This study and its results will be key to future water quality improvements for both lakes over the coming five years. For Lake Elsinore, the Task Force continues to work with the Lake Elsinore operators to work on a new operation and maintenance agreement for the Lake Elsinore aeration system. This will incorporate credits for funding support by the Riverside County MS4 permittees and others to meet their responsibility to control internal nutrient loads. Progress continues slowly as nutrient credits resulting from the Lake Elsinore aeration and mixing operations become better defined.

For Canyon Lake, the alum application evaluation phase of five applications over the past two and a half years concluded in late Sept. 2015. This does not mean, however, that alum will no longer be applied. The alum application to Canyon Lake is anticipated to be an ongoing practice for the future to control nutrients entering the lake from the upper watershed. An effectiveness report will be prepared in early 2016 with recommendations on how frequent future Canyon Lake alum applications should occur, and future alum dosages. Additionally, alternative strategies to deal with the East Bay algae issues also will be considered to ensure compliance as necessary with the nutrient TMDL for the entire Canyon Lake. Breaking East Bay out as a separate water body from the Canyon Lake main body for the TMDL also will be investigated.

Grant funding from DWR and SAWPA using the DWR Proposition 84 Integrated Regional Water Management grant program continues to flow into LESJWA and the Task Force. Some grant funding will be available after the 2½ year Canyon Lake alum application evaluation phase that can be applied to future Canyon Lake alum applications in 2016.

### **RESOURCES IMPACT**

All staff administration time applied to the TMDL Task Force comes from the TMDL budget and is funded only by the TMDL Task Force parties.

MN:dm