



**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, June 15, 2017 – 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 Clerk 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.

**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 or staff member requests that an item be removed from the Consent Calendar, the item 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 April 19, 2017.
- 1.1 TREASURER'S REPORTS.....9**  
**RECOMMENDATION:** Receive and file financial statements from March and April 2017.
- 1.2 COMMITTEE STATUS REPORT.....21**  
**RECOMMENDATION:** Receive and file a status report from the Education and Outreach Committee meeting held on May 15, 2017.
- 1.3 TMDL TASK FORCE REPORT.....23**  
**RECOMMENDATION:** Receive and file a status report from the Lake Elsinore and Canyon Lake TMDL Task Force meeting held on Apr. – May 2017.

**End of Consent Calendar**

**2.0 PHASE 2 TMDL COMPLIANCE MONITORING PROGRAM – FY 2017-18 COST UPDATE AND SATELLITE IMAGERY CHANGE ORDER (Memo 813).....29**

**RECOMMENDATION:** Approve revising Task Order No. AMEC160-03 with AMEC Foster Wheeler Environment & Infrastructure as follows:

- 1) Change Order No. 1 to Task Order No. AMEC160-03 for an amount not-to-exceed \$2,743 to incorporate additional high resolution satellite imagery and satellite cyanobacteria bloom monitoring into the Phase 2 compliance monitoring program.
- 2) Revise approved FY 2017-18 Task Order amount from an amount not-to-exceed \$150,805 to \$195,707 to include all previously approved Change Orders as well as the above Change Order No. 1 to Task Order No. AMEC 160-03 to provide requested additional technical support for the Phase 2 compliance monitoring program.

**3.0 REGULATORY STRATEGIST / TMDL COMPLIANCE SUPPORT SERVICES (Memo 814).....40**

**RECOMMENDATION:** Approve Task Order No. RISK160-10 with Tim Moore of Risk Sciences for an amount not-to-exceed \$121,760 for the next two fiscal years to serve as regulatory strategist and compliance expert to the Lake Elsinore and Canyon Lake TMDL Task Force.

**4.0 LAKE ELSINORE/CANYON LAKE TMDL TASK FORCE STATUS REPORT (Memo 815).....46**

**RECOMMENDATION:** Receive and file this status report on the Lake Elsinore and Canyon Lake TMDL Task Force.

**5.0 ADMINISTRATOR’S COMMENTS**

**6.0 DIRECTORS’ COMMENTS**

**7.0 ADJOURN**

**NEXT BOARD OF DIRECTORS MEETING:** Thursday, August 17, 2017 at 4:00 p.m.

**Meeting 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.

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

**Declaration of Posting**

I, Dawna Munson, Board Clerk for the Lake Elsinore & San Jacinto Watersheds Authority (LESJWA), declare that on June 9, 2017, a copy of this notice had been posted in the Administering Authority’s office located at 11615 Sterling Ave., Riverside CA, and on its website at [www.sawpa.org](http://www.sawpa.org).

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

**April 19, 2017**

**DIRECTORS PRESENT**

Robert Magee, Chair  
Vicki Warren  
Kevin Jeffries  
Phil Williams  
Brenda Dennstedt

**REPRESENTING**

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

**DIRECTORS ABSENT**

None.

**OTHERS PRESENT**

Nancy Horton  
Nicole Dailey  
Tim Moore  
Liselle DeGrave  
Steve Horn  
Jason Uhley  
Kyle Gallup

Elsinore Valley Municipal Water District  
City of Lake Elsinore  
Risk Sciences  
DeGrave Communications  
County of Riverside  
Riverside County Flood Control & WCD  
Riverside County Flood Control & WCD

**LESJWA STAFF**

Mark Norton  
Karen Williams  
Dawna Munson

LESJWA Authority Administrator  
LESJWA/SAWPA Chief Financial Officer  
LESJWA Board Clerk

The Regular Board of Directors meeting of the Lake Elsinore and San Jacinto Watersheds Authority was called to order at 4:01 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 from all five member agencies was duly noted by the Board Clerk.

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.

**1.0: CONSENT CALENDAR**

Chair Magee said he would like to pull from the Consent Calendar for discussion items 1.1, Treasurer's Report, and 1.2, Committee Status Report, and present Items 1.0 Minutes, and 1.3 for approval. Upon Motion by Director Dennstedt, seconded by Director Williams, the motion unanimously carried,

2017/4-1

**MOVED**, approval of the Consent Calendar including the Minutes from the December 19, 2016 Board Meeting, the Lake Elsinore/ Canyon Lake TMDL Task Force Meeting Notes from February 16, 2017, and to pull from the Consent Calendar for discussion Item 1.1 Treasurer's Reports, and Item 1.3 Committees Status Report.

with the following vote:

Ayes: Dennstedt, Jeffries, Magee, Warren, Williams  
Noes: None  
Absent: None  
Abstain: None



revenue funds carried over from past member agency contributions. The projections of costs for the FY 2017-18 shows that the member agency contributions along with the funding from the LE/CL TMDL Task force will be enough to cover all projected JPA activities. Also, with the increased member agency contributions and the funding from RCFC&WCD, the reserve funding is now gradually growing rather than being depleted as in past years.

The budget is formatted very similar to those of previous years; however, there are a few additional items. At the top portion of the operating revenue, it shows what's being contributed by the Task Force, 7:31 and shows the breakdown of the tasks and lists the 20 agencies.

A new item is the LEAMS excess offset credit totals, which is the amount of revenue that will be collected through the LEAMS Agreement that is on today's agenda. This funding would go back to the operators of the LEAMS system; LESJWA serves in the administrative role.

There was a request during the last budget process that the City of Canyon Lake increase their contribution, and he had forwarded that reminder to Director Warren, who indicated that it would be taken to the City Council in May. It has been suggested that Canyon Lake double their amount in line with all the other member agencies.

Staff recommends approval of the 2017-18 Budget subject to the City of Canyon Lake's contributions as shown.

Director Williams said he believes 5% sounds like a modest amount for the SAWPA administration costs. However, the LESJWA meetings have decreased throughout the years, and he'd like to provide to his Board a current breakdown of the 5%.

Chair Magee noted that he recently requested that the budget also show the Director stipends of \$0, as the Directors had voted to take a 100% cut in pay several years ago, which is significant and should be shown in the budget. To Director Williams' point about the 5% administrative fees, our meetings have decreased, but then costs are going up. It's important to reflect all of these things in our budgets.

Upon motion by Director Jeffries, seconded by Director Dennstedt, the motion unanimously carried,

2017/4-4

**MOVED**, approval of the 2017-18 LESJWA Budget, and invoice each LESJWA member agency at the start of the new fiscal year based on contribution levels as reflected in the budget.

with the following vote:

Ayes: Dennstedt, Jeffries, Magee, Warren, Williams  
Noes: None  
Absent: None  
Abstain: None

#### **4.0: License Agreement (Memo #LES809)**

Mark Norton said this item is for approval of the new LEAMS (Lake Elsinore Aeration & Mixing System) License Agreement. Tim Moore/Risk Sciences was authorized by this Board to develop supplemental provisions to the LEAMS Operation and Maintenance Agreement to incorporate a system by which an offset credit agreement could be developed, and that specifies how an offset credit for excess LEAMS nutrient uptake will be used to demonstrate compliance with the TMDL targets, load allocations, and wasteload allocations at Lake Elsinore, and then apportion those credits among the agencies co-sponsoring and operating the project (City of Lake Elsinore, EVMWD, and County of Riverside), upon approval by the Regional Board. The compression system that pushes out and provides air is so important. It also reduces the nutrient resuspension from the bottom, so there is a credit available for that. That revenue that is collected would then be used to address the issues at Lake Elsinore and also Canyon Lake.

The Agreement has been prepared similar to a software license. There is a lot of detail in the LEAMS agreement, and several attachments. The Operation & Maintenance Agreement is still in the approval process. Mr. Norton noted that Tim Moore was on hand to answer any questions.

Director Williams commented that a lot of work went into preparing the Agreement, and EVMWD treasures Tim Moore's assistance immensely and they're proud to support the project.

Upon motion by Director Williams, seconded by Director Dennstedt, the motion unanimously carried,

2017/4-5

**MOVED**, approval of the License Agreement for Offset Credits Generated by the Lake Elsinore Aeration and Mixing System (LEAMS).

with the following vote:

Ayes: Dennstedt, Jeffries, Magee, Warren, Williams  
Noes: None  
Absent: None  
Abstain: None

**5.0: Lake Elsinore/Canyon Lake Algae Toxicity Monitoring Change Order (Memo #LES810)**

Mark said this item is a recommendation to approve a change order with Amec Foster Wheeler, the firm that does the monitoring at both lakes. At a recent TMDL Task Force meeting, there was a representative from Southern California Coastal Water Research Project, a researcher who had done all the analysis about algae toxicity. They've been monitoring this for a while, and then it got really bad. The cyanotoxins can be quite bad and can make people sick. After listening to this presentation and researching State Board investigation of harmful algae blooms, Tim Moore of Risk Sciences recommended adding a monitoring program for HABs for Lake Elsinore and Canyon Lake to be paid by the Task Force. There are many types of toxins and it was likely that the State Board may want to incorporate into the TMDLs. These data will be important baseline data that will also help us tie any connection between chlorophyll A and toxicity. Included in packet is a page/rationale as to why we should add this as prepared by Risk Sciences.

The consultant would collect samples when they conduct regular water quality sampling and then send them these additional water samples out to laboratories which then could be tested for algae toxins. It's a little more in-depth testing. The data would be put into the State's CEDEN. This is important now since the Regional Board is updating the 303d list and why they're impaired. We want to make sure that all data is entered into CEDEN. We are aware of this data entry requirement and want to assist with that.

Recognizing that both Lake Elsinore and Canyon Lake would like to have immediate information about toxins and have a quick turnaround, a separate sampling component was scoped that would be paid for by the cities themselves to make sure that there's a quick turnaround. The City of Canyon Lake is doing this, but the City of Lake Elsinore feels that since they already have a separate contract with AMEC for the Task Force, they asked that that option item be removed as they're doing it anyway, so there's no reason to add on that component.

Director Williams asked if the TMDL Task Force was going to pay for Canyon Lake algae toxicity sampling, why wouldn't they also pay for Lake Elsinore. Mr. Norton stated that the Task Force is only funding a baseline level as necessary for the TMDL update. The additional components are optional and are intended as sampling if necessary for providing public health warnings. It's an optional task only for City of Lake Elsinore and for Canyon Lake. There are different levels in which they post warnings. The sampling proposed by the Task Force to be paid by the Task Force covers them in case the State Board gets more into monitoring algae toxins.

Director Williams agrees but indicated that he thought even public health warnings should be a responsibility of the TMDL Task Force and should be paid for by the TMDL parties.

Mr. Norton said that the Task Force did have in-depth discussions about what extent they were responsible for public safety. Director Magee said he appreciated Director Williams' comments. What we're talking about here is a bit of control and getting a quicker handle on the situation. For example, a vendor along with the Regional Board recently rolled into a Lake Elsinore campground beach area and issued a warning that there was algae toxicity issue again at Lake Elsinore. They failed to notify the operator, owner, and he said he just happened to find out about it. He said he appreciated the comments made, but that we don't want to wait until things just take care of it themselves. Director Warren shared that the whole affair last summer was a bad moment and a good learning experience. The Regional Board could come in like that again.

Mr. Norton said this new monitoring program will benefit all TMDL parties and the local lakes. The sampling is above and beyond what is mandated at this time and the Task Force feels is necessary for the needs of the Task Force, but it's being offered in case the cities want to do it.

Upon motion by Director Jeffries, seconded by Director Dennstedt, the motion unanimously carried,

2017/4-6

**MOVED**, approval of Change Order No. 1 to Task Order No. AMEC160-02 with AMEC Foster Wheeler Environment & Infrastructure, Inc. for an amount not-to-exceed \$33,252 to add algae toxicity testing and analysis to ongoing lake quality monitoring at Lake Elsinore and Canyon Lake.

with the following vote:

Ayes: Dennstedt, Jeffries, Magee, Warren  
Noes: None  
Absent: None  
Abstain: None

**6.0: Stormflow Impacts (Memo #LES811)**

Mark Norton introduced Kyle Gallup of Riverside County Flood Control & Water Conservation District. Mr. Gallup provided a brief presentation on the San Jacinto Basin flows through Mystic Lake into Canyon Lake and Lake Elsinore, discussing the tributaries to the lakes, the farmer's levee built in 1908, the breaches in the levee and the water flows into Mystic Lake. He also discussed the January 2017 rain event and the rainfall summaries; the volume of storage gained in Mystic Lake from the January storm, and reviewed other lakes' rise in footage.

The report was received and filed by the Board.

**7.0: Lake Elsinore/Canyon Lake TMDL Task Force Amendment (Memo #LES812)**

Mark Norton said this item is an amendment to the Lake Elsinore and Canyon Lake TMDL Task Force Agreement extending the termination date to June 30, 2020, with the option to extend it another two years beyond that. The Task Force believes it's very important work that we're engaged in and in being named as responsible parties. They see a lot of value in having this Task Force and in LESJWA overseeing the governance. The Amendment is most likely nine months away from approval.

Upon motion by Director Williams, seconded by Director Dennstedt, the motion unanimously carried,

2017/4-7

**MOVED**, approval of Amendment No. 1 to the Lake Elsinore and Canyon Lake TMDL Task Force Agreement to extend the Agreement to June 30, 2020, with the option to extend it two years more thereafter.

with the following vote:

Ayes: Dennstedt, Jeffries, Magee, Warren  
Noes: None  
Absent: None  
Abstain: None

**8.0: ADMINISTRATOR’S COMMENTS**

Mark announced that Celeste Cantu, SAWPA’s General Manager, has resigned and is retiring from public service. She has been with SAWPA for over ten years, and that continuity has been so important. Mr. Norton assured the Board that he will emphasize with the new General Manager the importance of LESJWA’s work

**9.0: DIRECTORS’ COMMENTS**

Director Dennstedt announced that Celeste Cantu will be the keynote speaker at the Santa Ana River Watershed Conference scheduled for May 25, 2017, held at Ontario Convention Center. She encouraged all to attend.

As there was no further business, Chair Magee adjourned the meeting at 5:00 p.m.

**APPROVED:** June 15, 2017

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

**ATTEST:** June 15, 2017

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



LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY  
 CASH FLOW STATEMENT  
 AS OF 04/30/17

**Balance as of 3/31/17** \$ 969,223.42

**Funds Received**

**Deposits:**

LAIF Interest \$ 1,575.84

**Open - Grant Invoices**

DWR - Prop 84 Grant - Inv 1 Retention	\$ 6,502.97
DWR - Prop 84 Grant - Inv 2 Retention	\$ 2,019.94
DWR - Prop 84 Grant - Inv 3 Retention	\$ 546.38
DWR - Prop 84 Grant - Inv 4	\$ 6,342.40
DWR - Prop 84 Grant - Inv 5	\$ 17,814.74
	\$ 33,226.43

**Open - Member & Other Contributions**

CA Department of Fish & Wildlife	\$ 35,121.00
West Riverside County Agricultural Coalition	\$ 24,300.00
	\$ 59,421.00

**Total Due LESJWA** \$ 92,647.43

**Disbursement List - April 2017** (56,155.65)

**Funds Available as of 04/30/17** \$ 914,643.61

**Funds Available:**

Checking	\$ 47,687.68
LAIF	\$ 866,955.93
<b>Total</b>	\$ 914,643.61

Lake Elsinore San Jacinto Watersheds Authority  
 LE/CL TMDL Invoice History  
 FYE 2011 - 2017  
 as of April 30, 2017

Agency	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
March ARB	10,000.00	13,050.00	12,500.00	35,226.00	25,176.00	38,321.00
CalTrans	10,000.00	13,050.00	12,500.00	28,656.00	26,072.00	40,421.00
City of Beaumont	3,900.00	1,865.00	19,263.00	24,280.00	26,866.00	37,421.00
City of Canyon Lake	3,396.00	644.00	18,389.00	34,863.00	24,142.00	42,521.00
City of Hemet	22,696.00	6,286.00	18,175.00	25,510.00	27,958.00	54,278.00
City of Lake Elsinore	73,133.00	-	19,381.00	30,580.00	32,463.00	37,421.00
City of Menifee	20,458.00	23,649.00	44,155.00	55,821.00	23,584.00	100,499.00
City of Moreno Valley	52,520.00	15,425.00	103,565.00	113,058.00	17,750.00	96,414.00
City of Murrieta	650.00	-	12,426.00	24,280.00	26,866.00	38,321.00
City of Perris	16,580.00	5,752.00	18,869.00	26,739.00	29,050.00	59,821.00
City of Riverside	2,965.00	1,575.00	17,641.00	24,280.00	26,866.00	38,921.00
City of San Jacinto	11,133.00	4,315.00	19,487.00	24,280.00	26,866.00	37,721.00
City of Wildomar	3,859.00	4,461.00	8,307.00	19,528.00	26,460.00	41,642.00
County of Riverside	32,919.00	-	30,165.00	36,469.00	30,362.00	68,931.00
Dept of Fish and Game	10,000.00	13,050.00	12,500.00	18,435.00	28,840.00	35,121.00
Eastern Municipal Water District	10,000.00	13,050.00	12,500.00	16,225.00	23,525.00	27,789.00
Elsinore Valley Municipal Water District	61,070.00	-	12,500.00	16,225.00	23,525.00	30,361.00
March JPA	10,000.00	13,050.00	12,500.00	24,485.00	27,160.00	38,921.00
San Jacinto Agricultural Operators	14,011.00	28,278.00	12,500.00	47,549.00	23,530.58	45,785.00
San Jacinto Dairy & CAFO Operators	10,000.00	10,211.00	12,500.00	16,225.00	-	-
<b>Total</b>	<b>379,290.00</b>	<b>167,711.00</b>	<b>429,823.00</b>	<b>642,714.00</b>	<b>497,061.58</b>	<b>910,630.00</b>
<b>Total Paid Contributions</b>	<b>379,290.00</b>	<b>167,711.00</b>	<b>429,823.00</b>	<b>642,714.00</b>	<b>497,061.58</b>	<b>875,509.00</b>
<b>Total Outstanding Contributions</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35,121.00</b>
 <b>Total Outstanding Contributions</b>						
Dept of Fish and Game	-	-	-	-	-	35,121.00
<b>Total Outstanding All Years</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35,121.00</b>

Lake Elsinore/San Jacinto Watershed Authority  
Statement of Net Assets  
For the Ten Months Ending Sunday, April 30, 2017

## Assets

Checking - US Bank	\$47,687.68
L.A.I.F.	866,955.93
Accounts Receivable	92,647.43
Total Assets	<u>\$1,007,291.04</u>

## Liabilities

Accounts Payable	40,708.63
Total Liabilities	<u>\$40,708.63</u>

Retained Earnings 497,763.78

Excess Revenue over (under) Expenditures \$468,818.63

Total Net Assets \$966,582.41

Total Liabilities and Net Assets \$1,007,291.04

Lake Elsinore/San Jacinto Watershed Authority  
Revenues, Expenses and Changes in Net Assets  
For the Ten Months Ending Sunday, April 30, 2017

	Period Actual	YTD Actual	Annual Budget	% Used	Budget Variance
<b>Revenues</b>					
State Grant Proceeds	\$0.00	\$178,147.44	\$172,000.00	103.57%	(\$6,147.44)
LAIF Interest	1,575.84	3,919.95	1,500.00	261.33%	(2,419.95)
Member Agency Contributions	0.00	279,234.00	279,234.00	100.00%	0.00
Other Agency Contributions	0.00	755,696.00	759,873.00	99.45%	4,177.00
<b>Total Revenues</b>	<b>\$1,575.84</b>	<b>\$1,216,997.39</b>	<b>\$1,212,607.00</b>	<b>100.36%</b>	<b>(\$4,390.39)</b>
<b>Expenses</b>					
Salaries - Regular	5,516.42	56,070.94	58,248.00	96.26%	2,177.06
Payroll Burden	2,394.13	24,334.81	25,279.00	96.26%	944.19
Overhead	8,710.43	88,536.03	91,973.00	96.26%	3,436.97
Audit Fees	0.00	5,500.00	5,500.00	100.00%	0.00
Consulting - General	1,511.85	568,549.61	792,106.00	71.78%	223,556.39
Other Contract Services	0.00	0.00	240,000.00	0.00%	240,000.00
Legal Fees	612.50	2,450.00	500.00	490.00%	(1,950.00)
Meeting & Conference Expense	0.00	185.28	100.00	185.28%	(85.28)
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	96.49	50.00	192.98%	(46.49)
Insurance Expense	0.00	2,367.00	2,260.00	104.73%	(107.00)
Interest Expense	31.58	88.60	50.00	177.20%	(38.60)
<b>Total Expenditures</b>	<b>\$18,776.91</b>	<b>\$748,178.76</b>	<b>\$1,216,176.00</b>	<b>61.52%</b>	<b>\$467,997.24</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>(\$17,201.07)</b>	<b>\$468,818.63</b>	<b>(\$3,569.00)</b>	<b>-13135.85%</b>	<b>(\$472,387.63)</b>

**Lake Elsinore San Jacinto Watersheds Authority**  
**Revenues, Expenses and Changes in Net Assets by Project**  
**For the Month Ending April 30, 2017**

	JPA Administration	TMDL Task Force	Total	Budget	% Used	Budget Variance
<b>Revenues</b>						
State Grant Proceeds	\$ -	\$ 178,147.44	\$ 178,147.44	\$ 172,000.00	103.57%	\$ (6,147.44)
LAIF Interest	3,919.95	-	3,919.95	1,500.00	261.33%	(2,419.95)
Member Agency Contributions	100,000.00	179,234.00	279,234.00	279,234.00	100.00%	-
Other Agency Contributions	-	755,696.00	755,696.00	759,873.00	99.45%	4,177.00
<b>Total Revenues</b>	<b>\$ 103,919.95</b>	<b>\$ 1,113,077.44</b>	<b>\$ 1,216,997.39</b>	<b>\$ 1,212,607.00</b>	<b>100.36%</b>	<b>\$ (4,390.39)</b>
<b>Expenditures</b>						
Salaries	\$ 20,051.70	\$ 36,019.24	\$ 56,070.94	\$ 58,248.00	96.26%	\$ 2,177.06
Benefits	8,702.45	15,632.36	24,334.81	25,279.00	96.26%	944.19
G&A Allocation	31,661.64	56,874.39	88,536.03	91,973.00	96.26%	3,436.97
Audit Fees	5,500.00	-	5,500.00	5,500.00	100.00%	-
Consulting	14,354.68	554,194.93	568,549.61	792,106.00	71.78%	223,556.39
Other Contract Services	-	-	-	240,000.00	0.00%	240,000.00
Legal Fees	2,450.00	-	2,450.00	500.00	0.00%	(1,950.00)
Meeting & Conference Expense	126.16	59.12	185.28	100.00	185.28%	(85.28)
Office Expense	-	-	-	60.00	0.00%	60.00
Shipping & Postage	-	-	-	50.00	0.00%	50.00
Other Expense	96.49	-	96.49	50.00	192.98%	(46.49)
Insurance Expense	2,367.00	-	2,367.00	2,260.00	104.73%	(107.00)
Interest Expense	88.60	-	88.60	50.00	177.20%	(38.60)
<b>Total Expenditures</b>	<b>\$ 85,398.72</b>	<b>\$ 662,780.04</b>	<b>\$ 748,178.76</b>	<b>\$ 1,216,176.00</b>	<b>61.52%</b>	<b>\$ 467,997.24</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>\$ 18,521.23</b>	<b>\$ 450,297.40</b>	<b>\$ 468,818.63</b>	<b>\$ (3,569.00)</b>	<b>100.00%</b>	<b>\$ (472,387.63)</b>
<b>Cash Balance @ 4/30/17</b>	<b>\$ 63,377.27</b>	<b>\$ 851,266.34</b>	<b>\$ 914,643.61</b>			

**Lake Elsinore San Jacinto  
Watershed Authority  
Disbursements  
April 2017**

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<b>Check #</b>	<b>Check Date</b>	<b>Type</b>	<b>Vendor</b>	<b>Check Amount</b>
EFT087	4/6/2017	CHK	Amec Foster Wheeler Environm	\$16,563.84
EFT088	4/14/2017	CHK	Santa Ana Watershed Project	\$17,585.21
EFT089	4/20/2017	CHK	Risk Sciences	\$5,870.47
EFT090	4/20/2017	CHK	CDM Smith Inc	\$14,229.50
EFT091	4/20/2017	CHK	DeGrave Communications	\$1,906.63
Total Disbursements April 2017				<u>\$56,155.65</u>

LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY  
 CASH FLOW STATEMENT  
 AS OF 03/31/17

**Balance as of 2/28/17** \$ 875,909.15

**Funds Received**

**Deposits:**

DWR - Prop 84 Grant - Inv 5 \$ 160,332.70

**Open - Grant Invoices**

DWR - Prop 84 Grant - Inv 1 Retention	\$ 6,502.97
DWR - Prop 84 Grant - Inv 2 Retention	\$ 2,019.94
DWR - Prop 84 Grant - Inv 3 Retention	\$ 546.38
DWR - Prop 84 Grant - Inv 4	\$ 6,342.40
DWR - Prop 84 Grant - Inv 5	<u>\$ 17,814.74</u>
	<u>\$ 33,226.43</u>

**Open - Member & Other Contributions**

CA Department of Fish & Wildlife	\$ 35,121.00
West Riverside County Agricultural Coalition	<u>\$ 24,300.00</u>
	<u>\$ 59,421.00</u>

**Total Due LESJWA** \$ 92,647.43

**Disbursement List - March 2017** (67,018.43)

**Funds Available as of 03/31/17** \$ 969,223.42

**Funds Available:**

Checking	\$ 178,843.33
LAIF	<u>\$ 790,380.09</u>
<b>Total</b>	<u><u>\$ 969,223.42</u></u>

Lake Elsinore San Jacinto Watersheds Authority  
 LE/CL TMDL Invoice History  
 FYE 2011 - 2017  
 as of March 31, 2017

Agency	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
March ARB	10,000.00	13,050.00	12,500.00	35,226.00	25,176.00	38,321.00
CalTrans	10,000.00	13,050.00	12,500.00	28,656.00	26,072.00	40,421.00
City of Beaumont	3,900.00	1,865.00	19,263.00	24,280.00	26,866.00	37,421.00
City of Canyon Lake	3,396.00	644.00	18,389.00	34,863.00	24,142.00	42,521.00
City of Hemet	22,696.00	6,286.00	18,175.00	25,510.00	27,958.00	54,278.00
City of Lake Elsinore	73,133.00	-	19,381.00	30,580.00	32,463.00	37,421.00
City of Menifee	20,458.00	23,649.00	44,155.00	55,821.00	23,584.00	100,499.00
City of Moreno Valley	52,520.00	15,425.00	103,565.00	113,058.00	17,750.00	96,414.00
City of Murrieta	650.00	-	12,426.00	24,280.00	26,866.00	38,321.00
City of Perris	16,580.00	5,752.00	18,869.00	26,739.00	29,050.00	59,821.00
City of Riverside	2,965.00	1,575.00	17,641.00	24,280.00	26,866.00	38,921.00
City of San Jacinto	11,133.00	4,315.00	19,487.00	24,280.00	26,866.00	37,721.00
City of Wildomar	3,859.00	4,461.00	8,307.00	19,528.00	26,460.00	41,642.00
County of Riverside	32,919.00	-	30,165.00	36,469.00	30,362.00	68,931.00
Dept of Fish and Game	10,000.00	13,050.00	12,500.00	18,435.00	28,840.00	35,121.00
Eastern Municipal Water District	10,000.00	13,050.00	12,500.00	16,225.00	23,525.00	27,789.00
Elsinore Valley Municipal Water District	61,070.00	-	12,500.00	16,225.00	23,525.00	30,361.00
March JPA	10,000.00	13,050.00	12,500.00	24,485.00	27,160.00	38,921.00
San Jacinto Agricultural Operators	14,011.00	28,278.00	12,500.00	47,549.00	23,530.58	45,785.00
San Jacinto Dairy & CAFO Operators	10,000.00	10,211.00	12,500.00	16,225.00	-	-
<b>Total</b>	<b>379,290.00</b>	<b>167,711.00</b>	<b>429,823.00</b>	<b>642,714.00</b>	<b>497,061.58</b>	<b>910,630.00</b>
<b>Total Paid Contributions</b>	<b>379,290.00</b>	<b>167,711.00</b>	<b>429,823.00</b>	<b>642,714.00</b>	<b>497,061.58</b>	<b>875,509.00</b>
<b>Total Outstanding Contributions</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35,121.00</b>
 <b>Total Outstanding Contributions</b>						
Dept of Fish and Game	-	-	-	-	-	35,121.00
<b>Total Outstanding All Years</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35,121.00</b>



Lake Elsinore/San Jacinto Watershed Authority  
Statement of Net Assets  
For the Nine Months Ending Friday, March 31, 2017

Assets

Checking - US Bank	\$178,843.33
L.A.I.F.	790,380.09
Accounts Receivable	92,647.43
Total Assets	<u>\$1,061,870.85</u>

Liabilities

Accounts Payable	78,087.37
Total Liabilities	<u>\$78,087.37</u>

Retained Earnings 497,763.78

Excess Revenue over (under) Expenditures \$486,019.70

Total Net Assets \$983,783.48

Total Liabilities and Net Assets \$1,061,870.85

Lake Elsinore/San Jacinto Watershed Authority  
Revenues, Expenses and Changes in Net Assets  
For the Nine Months Ending Friday, March 31, 2017

	Period Actual	YTD Actual	Annual Budget	% Used	Budget Variance
<b>Revenues</b>					
State Grant Proceeds	\$0.00	\$178,147.44	\$172,000.00	103.57%	(\$6,147.44)
LAIF Interest	0.00	2,344.11	1,500.00	156.27%	(844.11)
Member Agency Contributions	0.00	279,234.00	279,234.00	100.00%	0.00
Other Agency Contributions	0.00	755,696.00	759,873.00	99.45%	4,177.00
<b>Total Revenues</b>	<b>\$0.00</b>	<b>\$1,215,421.55</b>	<b>\$1,212,607.00</b>	<b>100.23%</b>	<b>(\$2,814.55)</b>
<b>Expenses</b>					
Salaries - Regular	5,810.52	50,554.52	58,248.00	86.79%	7,693.48
Payroll Burden	2,521.76	21,940.68	25,279.00	86.79%	3,338.32
Overhead	9,174.81	79,825.60	91,973.00	86.79%	12,147.40
Audit Fees	0.00	5,500.00	5,500.00	100.00%	0.00
Consulting - General	29,708.82	567,037.76	792,106.00	71.59%	225,068.24
Other Contract Services	0.00	0.00	240,000.00	0.00%	240,000.00
Legal Fees	0.00	1,837.50	500.00	367.50%	(1,337.50)
Meeting & Conference Expense	40.13	185.28	100.00	185.28%	(85.28)
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	37.99	96.49	50.00	192.98%	(46.49)
Insurance Expense	0.00	2,367.00	2,260.00	104.73%	(107.00)
Interest Expense	0.00	57.02	50.00	114.04%	(7.02)
<b>Total Expenditures</b>	<b>\$47,294.03</b>	<b>\$729,401.85</b>	<b>\$1,216,176.00</b>	<b>59.98%</b>	<b>\$486,774.15</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>(\$47,294.03)</b>	<b>\$486,019.70</b>	<b>(\$3,569.00)</b>	<b>-13617.81%</b>	<b>(\$489,588.70)</b>

**Lake Elsinore San Jacinto Watersheds Authority**  
**Revenues, Expenses and Changes in Net Assets by Project**  
**For the Month Ending March 31, 2017**

	JPA Administration	TMDL Task Force	Total	Budget	% Used	Budget Variance
<b>Revenues</b>						
State Grant Proceeds	\$ -	\$ 178,147.44	\$ 178,147.44	\$ 172,000.00	103.57%	\$ (6,147.44)
LAIF Interest	2,344.11	-	2,344.11	1,500.00	156.27%	(844.11)
Member Agency Contributions	100,000.00	179,234.00	279,234.00	279,234.00	100.00%	-
Other Agency Contributions	-	755,696.00	755,696.00	759,873.00	99.45%	4,177.00
<b>Total Revenues</b>	<b>\$ 102,344.11</b>	<b>\$ 1,113,077.44</b>	<b>\$ 1,215,421.55</b>	<b>\$ 1,212,607.00</b>	<b>100.23%</b>	<b>\$ (2,814.55)</b>
<b>Expenditures</b>						
Salaries	\$ 19,103.89	\$ 31,450.62	\$ 50,554.51	\$ 58,248.00	86.79%	\$ 7,693.49
Benefits	8,291.10	13,649.58	21,940.68	25,279.00	86.79%	3,338.32
G&A Allocation	30,165.05	49,660.55	79,825.60	91,973.00	86.79%	12,147.40
Audit Fees	5,500.00	-	5,500.00	5,500.00	100.00%	-
Consulting	12,842.83	554,194.93	567,037.76	792,106.00	71.59%	225,068.24
Other Contract Services	-	-	-	240,000.00	0.00%	240,000.00
Legal Fees	1,837.50	-	1,837.50	500.00	0.00%	(1,337.50)
Meeting & Conference Expense	126.16	59.12	185.28	100.00	185.28%	(85.28)
Office Expense	-	-	-	60.00	0.00%	60.00
Shipping & Postage	-	-	-	50.00	0.00%	50.00
Other Expense	96.49	-	96.49	50.00	192.98%	(46.49)
Insurance Expense	2,367.00	-	2,367.00	2,260.00	104.73%	(107.00)
Interest Expense	57.02	-	57.02	50.00	114.04%	(7.02)
<b>Total Expenditures</b>	<b>\$ 80,387.04</b>	<b>\$ 649,014.80</b>	<b>\$ 729,401.84</b>	<b>\$ 1,216,176.00</b>	<b>59.98%</b>	<b>\$ 486,774.16</b>
<b>Excess Revenue over (under) Expenditures</b>	<b>\$ 21,957.07</b>	<b>\$ 464,062.64</b>	<b>\$ 486,019.71</b>	<b>\$ (3,569.00)</b>	<b>100.00%</b>	<b>\$ (489,588.71)</b>
<b>Cash Balance @ 3/31/17</b>	<b>\$ 67,642.94</b>	<b>\$ 901,580.48</b>	<b>\$ 969,223.42</b>			

**Lake Elsinore San Jacinto  
Watershed Authority  
Disbursements  
March 2017**

<b>Check #</b>	<b>Check Date</b>	<b>Type</b>	<b>Vendor</b>	<b>Check Amount</b>
1082	3/9/2017	CHK	Law Office of David L. Wysocki	\$218.75
EFT081	3/3/2017	CHK	Risk Sciences	\$7,856.29
EFT082	3/3/2017	CHK	Santa Ana Watershed Project	\$13,834.34
EFT083	3/9/2017	CHK	Amec Foster Wheeler Environment	\$12,287.85
EFT084	3/17/2017	CHK	CDM Smith Inc	\$25,795.59
EFT085	3/23/2017	CHK	Risk Sciences	\$4,173.03
EFT086	3/23/2017	CHK	DeGrave Communications	\$2,852.58
Total Disbursements March 2017				<u><u>\$67,018.43</u></u>

**LESJWA Education and Outreach Committee**  
**Meeting Notes**  
**May 15, 2017**

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

Others Present: Liselle DeGrave, DeGrave Communications

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

**1. Call to Order**

Mark Norton called the meeting to order at 12:13 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 February 13, 2017 were reviewed and deemed acceptable by the Committee.

**4. Lake Levels**

- Lake Levels – The most current lake levels at Lake Elsinore are 1239.80 (May 8), and 1379.75’ at Canyon Lake (May 8). The lake levels from the last meeting at Lake Elsinore were 1239.39 (Feb. 6) and Canyon Lake at 1381.55 (Feb. 6). The Committee agreed that with the increased lake levels at Lake Elsinore, the outlook for water quality on the lake is much more favorable as compared to what it was a year ago.

**5. Canyon Lake**

- Update. Mr. Norton stated that the next alum application is scheduled for September 2017. Various observations that lake clarity has improved even in the East Bay since the last alum application conducted in late January 2017. Mr. Norton stated that he may be attending the next Canyon Lake City Council meeting to support a request for additional LESJWA funding from the City from \$10K to \$20K. Nicole Dailey recommended that the increase could be justified for conducting the new algae toxicity testing in Canyon Lake. Mr. Norton stated at this stage that testing would be a City cost and not a LESJWA cost. No specific purpose has been tied to the increase requested, and it would be up to the LESJWA Board to determine where to best use the additional funding if received.

## 6. Lake Elsinore

- Update. Nicole Dailey stated that the City is very interested in seeking more support from LESJWA for toxicity testing, carp removal and a fish survey. She stated that City staff has noticed increased numbers of carp just based on the fish caught from a recent fishing derby. The source of the additional carp may be coming from upstream flows from Canyon Lake who has also seen increased presence of carp. She also pointed out the some of the LESJWA Board members from the last LESJWA Board meeting felt that algae toxicity testing should be a LESJWA role and not just a local role and cost borne by the cities or by the Task Force. Mr. Norton emphasized that algae toxicity testing could be a task that LESJWA undertakes if there was additional funding provided to the organization. Ms. Dailey said that recent reports show that algae toxicity still is appearing in the lake near La Laguna boat ramp and the City had to place warning signs. She also felt that a new fish survey would be helpful to determine if the fishery is out of balance. She asked if this could be something that LESJWA could cover. Mr. Norton stated that it would depend on cost. In the past, the LE/CL TMDL Task Force covered the last fish survey using acoustic surveying tools conducted by Dr. Michael Anderson of UCR. He said he did not recall the cost of that survey but would check. (The Lake Elsinore hydroacoustic fish survey conducted by Dr. Anderson cost \$10,000). Mr. Norton said he would discuss this need with the LE/CL TMDL Task Force at a future Task Force meeting. Ms. Dailey said that the CA Dept of Fish and Wildlife had also conducted some recent electroshocking fish surveys and they will be following up with them on the results.

## 7. Outreach

- **Canyon Lake Alum Sign Layout**

Mr. Norton shared that Canyon Lake Alum Sign is now installed. Ms. DeGrave passed out photos of the installed signs.

- **Facebook Updates**

Ms. DeGrave handed out a three-page statistic page showing the results of the LESJWA Facebook outreach effort. Overall, the outreach is going well and growing. The LESJWA Facebook now showed 857 Likes with views dependent on the subject matter. Ms. DeGrave shared the comment of LESJWA Board member Magee made at the last meeting about a desire to ensure credit is given to the City of Lake Elsinore when photos or material are used. This was a reflection of how these meeting notes were recorded as opposed to what was posted. Both Cities and EVMWD have been very helpful in providing photos for posting. Ms. DeGrave will continue to monitor the LESJWA Facebook and post items of interest.

- **Chamber Outreach**

Mr. Norton reported that the presentation to the Lake Elsinore Chamber of Commerce went well with a joint presentation by both Nicole Dailey and himself. Both presentations will be posted on the LESJWA website media kit, and the Chamber newsletter article about LESJWA will be posted once it is officially released. Ms. Dailey asked if anyone noticed problems with access speed issues and whether the amount of content was slowing access. Mr. Norton stated he would check with the IT Department on this manner.

- **OWOW Conference 5/25**

Ms. DeGrave reported that LESJWA was preparing for a LESJWA Exhibit booth for SAWPA's OWOW Conference on May 25<sup>th</sup>.

- **Fiesta Day 5/27**

Ms. DeGrave shared that her firm also will have a LESJWA exhibit booth at the upcoming Canyon Lake Fiesta Day on May 27<sup>th</sup>. She reported that her staff will be available to operate the booth as well as a volunteer to be costumed for LESJWA's Bessie the Bass as in past years.

## 11. Discuss Items for Next Agenda

- No items were discussed.

## 12. Next Meeting Date

The next LESJWA Education and Outreach Committee meeting is scheduled for Monday, Aug. 14th at 12 noon at EVMWD.

**MEETING NOTES  
OF THE  
LAKE ELSINORE/CANYON LAKE TMDL TASK FORCE  
May 16, 2017**

**PARTICIPANTS**

Chris Stransky  
Richard Meyerhoff  
Steven Wolosoff  
Nancy Horton  
Rae Beimer  
Daniel Cortese  
Melanie Sotelo  
Rita Thompson  
Jamie Richards  
Cynthia Gabaldon  
Mike Roberts  
Lynn Merrill  
Steve Horn  
Sudhir Mohleji  
Parag Kalaria  
Lauren Sotelo  
Ankita Vyas  
Mark Smythe  
Ken Theisen  
Eric Lindberg  
Tim Moore  
Mike Venable  
Kyle Gallup  
Pat Boldt  
Mark Norton  
Dawna Munson

**REPRESENTATIVE**

Amec Foster Wheeler  
CDM Smith  
CDM Smith  
City of Canyon Lake  
City of Canyon Lake / Moreno Valley  
City of Hemet  
City of Hemet  
City of Lake Elsinore  
City of Menifee  
City of Perris/MJPA  
City of Riverside  
City of San Jacinto  
County of Riverside  
Elsinore Valley MWD  
Elsinore Valley MWD  
March JPA  
Michael Baker/Caltrans  
Regional Water Quality Control Board  
Regional Water Quality Control Board  
Regional Water Quality Control Board  
Risk Sciences  
Riverside County Flood Control & WCD  
Riverside County Flood Control & WCD  
WRCAC  
Santa Ana Watershed Project Authority  
Santa Ana Watershed Project Authority

**Via Conference Call:**

Al Javier  
Nicole Daily  
Steve Pastor

EMWD  
City of Lake Elsinore  
Riverside County Farm Bureau

**Call to Order & Introductions**

The Lake Elsinore/Canyon Lake TMDL Task Force meeting was called to order at 1:33 p.m. by Mark Norton at the Santa Ana Watershed Project Authority, Riverside, California.

**Meeting Notes**

The Task Force deemed the Meeting Notes acceptable for the meeting held on April 19, 2017.

**Recommendation: Amec Foster Wheeler Change Order Approval (LESJWA Staff)**

**San Francisco Estuary Institute Satellite Imagery Tool (Amec Foster Wheeler) /  
High Resolution Satellite Imagery (Risk Sciences)**

Chris Stransky/Amec Foster Wheeler discussed the work by the San Francisco Estuary Institute (SFEI) for the State to evaluate chlorophyll a concentrations for the State's major reservoirs using satellite imagery. The State is looking to develop a better screening method for hazardous algal blooms (HABs) using satellite imagery. Mr. Stransky noted that the satellite imagery used by the State to screen for HABs is of much lower resolution (300m) than is currently being collected by the TMDL Task Force (30m), and cannot be used for purposes of the TMDLs.

Tim Moore commented on the good news that the use of satellite imagery is much more widely accepted now compared to years ago. It's also good that a lot of historical data for Lake Elsinore is included in this work by SFEI for the State, which he has requested to obtain. Further, according to the State's draft website, it indicates that they intend to have all the data from 2012 to current, which will be very useful.

He would like to compare our high-detail resolution data (30m) to their low-detail resolution data (300m). Their data is reported in a tabular form as compared to what we do in pixel graphs, which provides a better way for us to examine the data all at once. The value to the Task Force is that the State's dataset can be used to validate our efforts using the satellite imagery. This will be important to the Task Force when it comes time to defend the new TMDL against the old, as it will give us some additional data support.

Chris Stransky discussed the use of high resolution satellite imagery available from the recently launched Sentinel 2A satellite, which delivers imagery with higher 10-m resolution that would help the Task Force to resolve issues with data collected for the narrow east arm of Canyon Lake.

He noted that it has frequently been observed that satellite derived concentrations of chlorophyll-a in the far eastern end of Canyon Lake's eastern arm are frequently much higher than those in other areas of the eastern arm. These concentrations are sometimes 3-4 times higher than concentrations measured directly through analytical water samples. After discussions with EOMAP, the satellite imagery vendor, it was suspected this was due to edge interference where pixels around the edges of the lake mix both water and land data to create a "composite" value representing chlorophyll-a near the edges. LandSat 7/8 uses 30 meter (m) pixel resolution and requires a minimum mapping size of three pixels (90-m) to generate a valid concentration. The far eastern arm of Canyon Lake is below this minimum size in most places.

A drawback of Sentinel 2A is its vulnerability to "sunglint" during the summer months caused by the viewing geometry. The image area is located in the eastern part of the Sentinel 2A scene coverage, and therefore the satellite "looks" into the direction of the sun during recording of the image. This viewing angle, together with the sun geometry during peak summer months, leads to a direct reflection of sunlight from the water surface to the satellite (sunglint), thereby causing QA issues. For this reason, they recommend using the former LandSat 7/8 satellite for imagery during the months of June through August, and Sentinel 2A during the other months of the year.

A question arose if it's a benefit to use both satellites. Chris Stransky replied there are a couple types of toxins that will be measured. The Sentinel satellite will give a better quantification of how much blue green alga is there. The satellite image takes the same picture, but uses different filters to provide the resolution of the blue green algae. Tim Moore added that it would help provide a better prediction as to whether or not an algae situation in the lake should be posted.

Mark Norton reviewed the change order proposal by Amec Foster Wheeler. The total additional cost would be \$2,743 to incorporate the additional high resolution satellite imagery, along with satellite imagery and processing for the cyanobacteria specific pigments for phycocyanin and phycoerythrin into the analyses of in-lake chlorophyll for the annual compliance monitoring report.

Upon motion by Pat Boldt, seconded by Nancy Horton, the Task Force unanimously approved preparation of a Change Order with Amec Foster Wheeler in the amount of \$2,743 to incorporate higher resolution satellite imagery and satellite cyanobacteria bloom monitoring.

### **Discussion: Update and Revise TMDLS (Risk Sciences/CDM Smith)**

Tim Moore/Risk Sciences displayed a presentational review of how the old and new TMDLs evolved, and provided a reference for what the TMDL looks like today compared to the new one.

Steve Wolosoff/CDM Smith next provided a PowerPoint presentation on the changes from the 2004 TMDL, for Canyon Lake and Lake Elsinore.



A direct website link is provided below to access the presentations given at the meeting:

<http://www.sawpa.org/wp-content/uploads/2012/05/Risk-Sciences-CDM-Presentations-5-16-17.pdf>

## **Lake Updates**

### Lake Elsinore

Rita Thompson stated that water level currently is 1239.69, but lake levels continue to drop due to evaporation, so of course more rain is needed. The recreation supervisor informed them that the water looks the best they've seen in a while.

Mark Norton asked about the carp increase. Nicole Daily/City of Lake Elsinore said the water still looks very green in terms of algae and they've seen more of the carp. The carp netting was last done in 2008, so there's been some discussion as to whether that should be done again, but there's concern about the impact to the TMDL. Removing the fish probably would reduce their loads. The suggestion was that netting be done on a bi-annual basis. However, they want to make sure that when they're stocking fish, they're helping the TMDL. They anticipate losing another 2-3 feet water during the summer.

Rita Thompson added that they will be taking the License Agreement to the City Council on May 23.

### Canyon Lake

Nancy Horton reported that the lake level is at 1328, and that there definitely has been an increase in carp. The Bass Masters are considering holding a tournament for children, where they'd get a reward to catch carp, which later would be turned into fertilizer. There also has been some interest in doing a fish survey on the fish size. The POA is discussing purchasing fish, as the fishermen are reporting that the fish have been small; a speciation would help verify that. They've also discussed having a speciation survey done and will research obtaining a company to do that work. Mark Norton suggested checking with the Department of Fish & Wildlife for a contact. Chris Stransky noted that Amec Foster Wheeler also does that type of work, and they would coordinate with Department of Fish & Wildlife.

## **Task Force Administration (LESJWA Staff)**

Mark Norton reminded the Task Force about taking Amendment 1 to their respective Boards and returning it to SAWPA by June 30, 2017.

## **Other Business**

There was no other business discussed.

## **Schedule Next Meeting**

The next LE&CL TMDL Task Force meeting is scheduled for Tuesday, June 13 at 9:30 a.m. at SAWPA.

## **Adjourn**

The meeting adjourned at 4:04 p.m.

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**MEETING NOTES  
OF THE  
LAKE ELSINORE/CANYON LAKE TMDL TASK FORCE  
April 19, 2017**

**PARTICIPANTS**

Patrick Hally  
Steven Wolosoff  
Chris Stransky  
Rae Beimer  
Daniel Cortese  
Melanie Sotelo  
Rita Thompson  
Tad Nakatani  
Cynthia Gabaldon  
Mike Roberts  
Lynn Merrill  
Steve Horn  
Al Javier  
Mike Ali  
Ankita Vyas  
Mark Smythe  
Ken Theisen  
Tim Moore  
Pat Boldt  
Mark Norton  
Rick Whetsel

**REPRESENTATIVE**

CalTrans  
CDM Smith  
Amec Foster Wheeler  
City of Canyon Lake / Moreno Valley  
City of Hemet  
City of Hemet  
City of Lake Elsinore  
City of Menifee  
City of Perris/MJPA  
City of Riverside  
City of San Jacinto  
County of Riverside  
Eastern Municipal Water District  
Elsinore Valley MWD  
Michael Baker/Caltrans  
Regional Water Quality Control Board  
Regional Water Quality Control Board  
Risk Sciences  
WRCAC  
Santa Ana Watershed Project Authority  
Santa Ana Watershed Project Authority

**Via Conference Call:**

Steve Pastor  
Lauren Sotelo

Farm Bureau  
March JPA

**Call to Order & Introductions**

The Lake Elsinore/Canyon Lake TMDL Task Force meeting was called to order at 1:05 p.m. by Mark Norton at the Santa Ana Watershed Project Authority, Riverside, California.

**Meeting Notes**

The Meeting Notes were approved by the Task Force for the meeting held on March 22, 2017.

**Recommendation: Amec Foster Wheeler Change Orders (LESJWA Staff)**

Mark Norton requested Task Force Stakeholders to consider ratifying the following to expand the scope of the Amec Foster Wheeler TMDL Compliance Monitoring Task Order to include the following.

**A. Cyanotoxin Monitoring for Lake Elsinore and Canyon Lake (\$28,252)**

In response to the detection of cyanotoxins in Lake Elsinore and Canyon Lake in 2016, stakeholders requested one year of monitoring for cyanotoxins to be implemented as part of the routine TMDL compliance monitoring of both lakes.

Additionally, this task includes an option for cyanotoxin monitoring focused to address public health concerns for Canyon Lake if the City chooses to fund this additional monitoring through the Task Force.

**B. Water Quality Data Management (\$5,000)**

Amec Foster Wheeler has requested additional funds to complete formatting and data QA/QC related efforts in regard to historic TMDL-related monitoring data to be uploaded to the California Environmental Data Exchange Network (CEDEN).

Following a brief discussion, Lynn Merrill/representing City of San Jacinto moved to approve a Change Order to include the above. The motion was seconded by Steve Horn /County of Riverside, and was unanimously approved by the stakeholders.

The Change Order will go to the LESJWA Board for approval this afternoon (April 19<sup>th</sup>).

### **Discussion: Update and Revise TMDLS (CDM Smith/Risk Sciences)**

Steven Wolosoff presented to stakeholders on the draft TMDL wasteload and load allocations.

A direct link is provided below to SAWPA's website containing the presentation(s) given at the meeting:

<http://www.sawpa.org/wp-content/uploads/2012/05/2017-4-19-Load-Reductions-from-Existing-Control-Progs1.pdf>

Tim Moore reported that he and Richard Meyerhoff will be sharing the Draft TMDL Technical Document, the original TMDL Technical Document, and other relevant documents for the purposes of conducting a peer review. This peer review will be conducted with two senior staff representatives of the Colorado regulatory community. The focus of this peer review is to gauge from a regulatory perspective whether the approach laid out in our updated TMDL Technical Document is reasonable and clearly understandable.

Mr. Moore and Mr. Meyerhoff will report back to stakeholders on this peer review at a future meeting.

### **Lake Updates**

#### Lake Elsinore

Rita Thompson stated that the current lake level for Lake Elsinore is 1,240.08 feet above sea level and overall the lake appears to be healthy.

Tim Moore asked about the salinity levels in the lake. Chris Stransky reported that the electrical conductivity (EC) values were about 3,500 ( $\mu\text{S}/\text{cm}$ ), about half of what they were prior to the winter storms.

#### Canyon Lake

Mark Norton announced there was a recent article in the Press Enterprise that discussed all of the positive feedback from the Canyon Lake Alum Project.

Mr. Norton also shared photos of the new Canyon Lake Alum Project signs installed at the lake.

### **Task Force Administration (LESJWA Staff)**

Mark Norton informed stakeholders of this afternoon's LESJWA Board meeting which will include recommendations to approve the Change Order to the Amec Foster Wheeler Task Order to conduct TMDL Compliance monitoring, the Amendment to the LE&CL TMDL Task Force Agreement and the LEAMS Licensing Agreement.

### **Other Business**

Mr. Chris Stransky /Amec Foster Wheeler reminded stakeholders of the Harmful Algal Blooms (HABs) workshop at SCCWRP April 25<sup>th</sup> to 27<sup>th</sup>. The first day of the workshop will cover marine bacteria, and then freshwater the other two days.

Stuart McKibbin announced the April 28<sup>th</sup> Regional Board workshop, which will cover discussion of the new 303D list released by the State and the County's response letter discussing the DDT listing for Lake Elsinore among issues of concern.

### **Schedule Next Meeting**

The next LE&CL TMDL Task Force meetings are scheduled for Tuesday, May 16<sup>th</sup> from 1:30p.m.- 4:00 p.m. at SAWPA, and on Tuesday, June 13<sup>th</sup> from 9:30 a.m. to 12:00 p.m. at SAWPA.

### **Adjourn**

The meeting adjourned at 3:00 p.m.

## LESJWA BOARD MEMORANDUM NO. 813

**DATE:** June 15, 2017

**SUBJECT:** Phase 2 TMDL Compliance Monitoring Program – FY 2017-18 Cost Update and Satellite Imagery Change Order

**TO:** LESJWA Board of Directors

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

### RECOMMENDATION

The Lake Elsinore and Canyon Lake Nutrient TMDL Task Force and LESJWA staff recommends that the Board of Directors Approve revising Task Order No. AMEC160-03 with AMEC Foster Wheeler Environment & Infrastructure as follows:

- 1) Change Order No. 1 to Task Order No. AMEC160-03 for an amount not-to-exceed \$2,743 to incorporate additional high resolution satellite imagery and satellite cyanobacteria bloom monitoring into the Phase 2 compliance monitoring program.
- 2) Revise approved FY 2017-18 Task Order amount from an amount not-to-exceed \$150,805 to \$195,707 to include all previously approved Change Orders as well as the above Change Order No. 1 to Task Order No. AMEC 160-03 to provide requested additional technical support for the Phase 2 compliance monitoring program.

### DISCUSSION

Over the past two years, in order to address the need for additional monitoring and technical support in the implementation of activities relating to the Lake Elsinore and Canyon Lake Nutrient TMDL Phase 2 Compliance Monitoring program, the members of the Lake Elsinore and Canyon Lake Nutrient TMDL Task Force Technical Advisory Committee have recommended and obtained approval from the LESJWA Board to implement several Change Orders to AMEC Foster Wheeler Environment & Infrastructure, Inc. scope of work as follows:

- 1) Modification of the nutrient TMDL In-Lake Monitoring Design (approved December 17, 2015)  
Addresses a request by Regional Board staff to modify the approved Phase 2 Compliance Monitoring Plan for increased summer sampling frequency in Lake Elsinore to address the summer average water quality objective for chlorophyll a. This includes adding two additional monitoring events (for a total of 8 events per year) into the Lake Elsinore portion of the monitoring.
- 2) Pre-alum Effectiveness Monitoring (two events annually) (approved December 15, 2016)  
Pre-alum effectiveness monitoring will be scheduled to occur within approximately 1-week of any anticipated future alum applications. This includes field water quality measurements only and will consist of the performance of a full water column depth profile for temperature, pH, conductivity, and dissolved oxygen at 1-meter intervals throughout the water column, and a measure of water clarity using a Secchi disk at each station. This data will be summarized and provided to the Task Force and the alum application vendor within 24-hours of monitoring. Final results will be incorporated into the annual LE&CL TMDL compliance monitoring report.
- 3) Hazardous Algal Bloom (HAB) Monitoring (approved April 19, 2017)  
In response to the detection of cyanotoxins in Lake Elsinore and Canyon Lake in 2016, conduct one year of monitoring for cyanotoxins as part of the Phase 2 compliance monitoring program of both lakes. This monitoring will attempt to address questions about the relationship between cyanotoxin concentrations and nutrient concentrations. Cyanotoxin sampling will match the schedule of the routine Nutrient TMDL sampling. Lake Elsinore will be sampled 8 times annually (bi-monthly October to May, and monthly June to September). Canyon Lake will be sampled 6 times annually, on a bi-monthly

frequency. Final results will be incorporated into the annual LE&CL TMDL compliance monitoring report.

Now, in addition, the members of the Lake Elsinore and Canyon Lake Nutrient TMDL Task Force Technical Advisory Committee are recommending a Change Order for AMEC Foster Wheeler Environment & Infrastructure, Inc. to incorporate additional high resolution satellite imagery along with satellite imagery and processing for the cyanobacteria specific pigments into the analyses of in-lake chlorophyll for the annual LE&CL TMDL compliance monitoring report.

The attached Change Order details the additional work by AMEC Foster Wheeler Environment & Infrastructure, Inc. to support the Phase 2 Compliance Monitoring program. Included with this Task Order is a scope of work and budget providing a detailed description of support services to be performed by the Consultant through FY 2017-18.

The impact of these Change Orders on the existing Task Order to implement the Phase 2 Nutrient TMDL Water Quality Compliance Monitoring Program will increase the original annual AMEC Foster Wheeler Environment & Infrastructure Task Order not-to-exceed budget of \$150,805 to an overall budget of \$195,707 (including the Change Order to incorporate as shown in Exhibit A (attached)).

### **BACKGROUND**

In June 2015, the LESJWA Board approved a contract to conduct the Phase 2 nutrient TMDL Compliance monitoring program in response to a request for proposals. Through this agreement, AMEC Foster Wheeler Environment & Infrastructure, Inc. provides the following services to the LE&CL TMDL Task Force to implement the FY 2015-18 Phase 2 nutrient TMDL Compliance monitoring program, as described in the April 2015 Lake Elsinore and Canyon Lake Nutrient TMDL Phase 2 Compliance Monitoring Work Plan:

- Wet season watershed-wide compliance monitoring
- Bi-monthly in-lake monitoring for Lake Elsinore
- Bi-monthly in-lake monitoring for Canyon Lake
- Pre alum Application Effectiveness Monitoring
- Contract and coordinate with Babcock laboratories for analytical laboratory services
- Coordinate with EVMWD on data sondes operating in Lake Elsinore
- Contract and coordinate with Blue Water Satellite for bi-monthly analyses of in-lake chlorophyll-a using satellite imagery
- Coordinate with RCFC&WCD staff on tracking weather for wet season storm events
- Prepare annual TMDL Water Quality Compliance Monitoring Reports for Regional Board submittal
- Management of Water Quality Monitoring Data
- Provide status updates to the TMDL Task Force.

### **RESOURCES IMPACT**

The TMDL Task Force FY 2017-18 Budget provided a budget of \$160,634 to conduct watershed-wide nutrient monitoring. Additionally, the TMDL Task Force has approved the use of its sufficient reserves to cover the balance of the additional monitoring to support the proposed monitoring by the Lake Elsinore and Canyon Lake TMDL Task Force. All staff contract administration time for this contract will be taken from the TMDL budget and funded by the TMDL Stakeholders.

MN/RW/dm

Attachments:

1. Task Order AMEC160-03
2. Change Order No.1 AMEC160-03
3. Exhibit A – AMEC Foster Wheeler Environment & Infrastructure, Inc. FY 2017-18 Task Order budget to implement the Phase 2 Nutrient TMDL Water Quality Compliance Monitoring Program

**LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY**  
**TASK ORDER NO. AMEC160-03**

**CONSULTANT:** Amec Foster Wheeler Environment & Infrastructure, Inc. **VENDOR 1734**  
9210 Sky Park Court  
San Diego, CA 92123

**COST:** \$195,707

**PAYMENT:** Monthly, upon receipt of proper invoice

**REQUESTED BY:** Rick Whetsel, Sr. Watershed Planner June 15, 2017

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

**FINANCING SOURCE:** Acct. Coding 160-TMDL-6113-01  
Acct. Description TMDL Task Force

**BOARD AUTHORIZATION REQUIRED:** YES ( ) NO (X)\*

*\*Funding for this work was approved by the LESJWA Board June 18, 2015, reference Board Memo #771. This is the third year of the three-years funding approval, FY 2017-18.*

This Task Order is issued by the Lake Elsinore & San Jacinto Watersheds Authority (hereafter "LESJWA") to **Amec Foster Wheeler Environment & Infrastructure, Inc.** (hereafter "Consultant") pursuant to the Agreement between LESJWA and Consultant entitled *Agreement for Services*, dated June 18, 2015 (*expires 12-31-2019*).

**I. PROJECT NAME OR DESCRIPTION**

San Jacinto Watershed-wide Nutrient TMDL Monitoring

**II. SCOPE OF WORK / TASKS TO BE PERFORMED**

Consultant shall provide all labor, materials, and equipment for the project to perform the tasks of providing additional technical support in the implementation of activities relating to the Lake Elsinore and Canyon Lake Nutrient TMDL Phase 2 Compliance Monitoring program, for FY 2017-18. These include:

- Project management, coordination activities, meeting attendance, and laboratory contracting.
- Watershed Monitoring.
- In-Lake Monitoring.
- Reporting. This includes additional monitoring as required by the modification of the nutrient TMDL in-lake monitoring design.
- Provide status updates to the TMDL Task Force.

*Please refer to Appendix X for acceptable deliverable formats*

**III. PERFORMANCE TIME FRAME**

Consultant shall begin work within five days of the date this Task Order is signed by the Authorized Officer and shall complete performance of such services by or before **June 30, 2018**.







**Lake Elsinore & Canyon Lake Nutrient TMDL Compliance Monitoring Implementation  
2017-2018 Fiscal Year Scope of Work Cost Summary based on 8 Events for Lake Elsinore & 6  
Events for Canyon Lake per Year**

Provided by Chris Stransky, Amec Foster Wheeler, San Diego CA  
Provided to Mr. Rick Whetsel (SAWPA) - May 19, 2017

TASK	DESCRIPTION	LABOR COSTS	PROJECT SUPPLIES	SUBCONTRACTOR COSTS	COMBINED TOTAL (\$)
<b>TASK 1</b>	<b>Project Management and Meetings</b>	<b>\$15,125</b>	<b>\$257</b>	<b>\$0</b>	<b>\$15,382</b>
SubTask 1.1	Project Management/ Coordination Activities/ Laboratory Contracting	\$6,360	\$0	\$0	\$6,360
SubTask 1.2	TMDL Technical Advisory Committee Meeting Attendance/ Support (up to 6 meetings)	\$8,765	\$257	\$0	\$9,022
<b>TASK 2</b>	<b>Watershed Monitoring. Incl. Pre-monitoring planning &amp; field supplies</b>	<b>\$36,070</b>	<b>\$6,045</b>	<b>\$5,310</b>	<b>\$47,425</b>
<b>TASK 3</b>	<b>In-Lake Monitoring</b>	<b>\$44,090</b>	<b>\$5,020</b>	<b>\$45,835</b>	<b>\$94,945</b>
SubTask 3.1	Lake Elsinore	\$14,100	\$2,010	\$10,750	\$26,860
SubTask 3.2	Canyon Lake	\$14,100	\$2,010	\$18,590	\$34,700
SubTask 3.3	Pre-Alum Effectiveness Monitoring <sup>1</sup>	\$3,390	\$1,000	\$0	\$4,390
SubTask 3.4	CyanoHab Monitoring (issued as change order April 19, 2017) <sup>2</sup>	\$12,500	\$0	\$15,752	\$28,252
SubTask 3.5	Optional Satellite Imagery Processing for Cyanobacterial Blooms	\$0	\$0	\$743	\$743
<b>TASK 4</b>	<b>Data Analysis and Reporting</b>	<b>\$37,955</b>	<b>\$0</b>	<b>\$0</b>	<b>\$37,955</b>
SubTask 4.1	Quarterly Reports	\$10,165	\$0	\$0	\$10,165
SubTask 4.2	Data QA/QC, CEDEN Formatting and Uploads	\$6,250	\$0	\$0	\$6,250
SubTask 4.3	Draft and Final Annual Water Quality Monitoring Report	\$21,540	\$0	\$0	\$21,540
<b>2017-2018 ANNUAL PROGRAM GRAND TOTAL</b>					<b>\$195,707</b>

<sup>1</sup> Assumes two events per year for two staff, water quality (i.e. pH, dissolved oxygen, temperature, conductivity, secchi disk) measurements only

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**LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY**

**CHANGE ORDER NO. 1  
To Task Order No. AMEC160-03**

**CONSULTANT:** AMEC Foster Wheeler Environment & Infrastructure, Inc. **VENDOR NO.** 1734  
9210 Sky Park Court  
San Diego, Ca 92123

**PROJECT:** Lake Elsinore & Canyon Lake Nutrient TMDL Phase 2 Compliance Monitoring

**COST:** \$2,743

**REQUESTED BY:** Rich Whetsel, Sr. Watershed Planner June 15, 2017

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

**FINANCING SOURCE:** Acct. Coding: 160-TMDL-6113-01  
Acct. Description: TMDL Task Force

**BOARD AUTHORIZATION REQUIRED:** YES ( ) NO (X)

*Funding for the task order was authorized on June 15, 2017; ref Board Memo No. LES\_\_\_*

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

**DESCRIPTION / JUSTIFICATION OF CHANGE:** The purpose of this change order is to incorporate additional high resolution satellite imagery along with satellite imagery and processing for the cyanobacteria specific pigments of r phycocyanin and phycoerythrin into the analyses of in-lake chlorophyll for the annual Lake Elsinore and Canyon Lake compliance monitoring report.

**CHANGE IN CONTRACT TIME:** No change - June 30, 2018

**CHANGE IN TASK ORDER PRICE:**

Original Task Order Amount	\$195,707
Change Order No. 1 Amount	<u>\$ 2,743</u>
Amended Contract Total	\$198,450

**ACCEPTANCE:**  
Contractor accepts 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 this 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 and approved, all in accordance with the General Provisions of the Contract Specifications.

**LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY**

\_\_\_\_\_  
Mark Norton, PE, LESJWA Authority Administrator Date

**AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.**

\_\_\_\_\_  
(Signature) Date Typed/Printed Name



May 8, 2017

Santa Ana Watershed Project Authority (SAWPA)  
 11615 Sterling Avenue  
 Riverside, CA 92503

Attention: Rick Whetsel

Subject: **Change Order Scope of Work**  
**Scope Description to Incorporate Higher Resolution Satellite Imagery and Optional Satellite Cyanobacteria Bloom Monitoring**

## 1.0 PURPOSE

The purpose of this change order request is to provide a scope and costs to the Lake Elsinore and San Jacinto Watershed Authority (LESJWA) nutrient total maximum daily loads (TMDL) Task Force to add increased satellite imagery resolution by switching from LandSat 7/8 imagery to Sentinel 2A for the 2017-18 fiscal year monitoring.

A scope of work description is provided in Section 2.0, a schedule is presented in Section 3.0, and costs are summarized in Section 4.0.

## 2.0 SCOPE OF WORK

LandSat 7/8 satellite imagery used for the purpose of estimating lake-wide chlorophyll-a concentrations and turbidity has been part of the routine Lake Elsinore and Canyon Lake Nutrient TMDL monitoring program since July 2015. During this time it has frequently been observed that satellite derived concentrations of chlorophyll-a in the far eastern end of Canyon Lake's eastern arm are frequently much higher than those in other areas of the eastern arm. At times these concentrations are much higher (3-4x) than concentrations measured directly through analytical water samples. After discussions with EOMAP, the satellite imagery vendor, it was suspected this was due to edge interference where pixels around the edges of the lake mix both water and land data to create a "composite" value representing chlorophyll-a near the edges. LandSat 7/8 uses 30 meter (m) pixel resolution and requires a minimum mapping size of three pixels (90-m) to generate a valid concentration. The far eastern arm of Canyon Lake is below this minimum size in most places.

A recently launched satellite called Sentinel 2A delivers imagery with higher 10-m resolution that would resolve much of the edge interference issue by generating more "water only" data points within the central channel of the arm, and providing 3 times as many data points within the lakes. However, one drawback of Sentinel 2A is its vulnerability to "sunglint" during the summer months caused by the viewing geometry. The image area is located in the eastern part of the Sentinel 2A scene coverage, and therefore the satellite "looks" into the direction of the sun during recording of the image. This viewing angle together with the sun geometry during peak summer months leads to a direct reflection of sunlight from the water surface to the satellite (i.e. sunglint), thereby causing QA issues. As a result of this, we recommend using the former LandSat 7/8 satellite for imagery during the months of June through August, and Sentinel 2A during all others months of the year.



An optional image processing product indicating the likelihood of a harmful cyanobacterial algal bloom can also be performed using the same satellite imagery and processing for the cyanobacteria specific phycocyanin and phycoerythrin pigments. This product would not provide a concentration of algal toxins, but rather indicates the presence and relative biomass of cyanobacterial algae in the waterbody.

### 3.0 SCHEDULE OF WORK

Satellite imagery will occur during routine nutrient TMDL monitoring. In-lake monitoring event dates will be selected to occur concurrent with satellite overpass dates, so that water analytical concentrations can be validated against estimated satellite values. In the event that cloud cover prevents the satellite from obtaining a high quality image, the previous or subsequent satellite image (LandSat every 8 days; Sentinel 2A every 10 days) will be used. Sampling frequency will match the schedule outlined in Table 1.

**Table 1: Nutrient TMDL Sampling Frequency**

Water Body	Month Monitored											
	J	F	M	A	M	J	J	A	S	O	N	D
Lake Elsinore		•		•		•	•	•	•	•		•
Canyon Lake		•		•		•		•		•		•

### 4.0 COST

Table 2 summarizes total costs for the increased satellite imagery resolution by switching from LandSat 7/8 imagery to Sentinel 2A for the 2017-18 fiscal year monitoring as outlined above. The costs include 8 processed images of both lakes. The optional phycocyanin and phycoerythrin processing can be performed for an additional 5% surcharge (\$743).

**Table 2: Satellite Imagery Costs for the 2017-18 Monitoring Season**

Satellite	# Events	Total
Recommended Combination of LandSat 7/8 and Sentinel 2A <sup>1</sup>	8	\$14,860
Optional Phycocyanin and Phycoerythrin processing	8	\$743
Original Base Pricing using LandSat 7/8 exclusively	8	\$12,860
<b>Annual Contract Increase Incorporating Sentinel 2A</b>		\$2,000
<b>Annual Contract Increase Incorporating Sentinel 2A and Cyanobacterial Monitoring</b>		\$2,743

<sup>1</sup> LandSat 7/8 used June – August, Sentinel 2A September - May



If you have any questions, please contact us at your convenience. We look forward to continuing our work with the LESJWA on these important projects.

Sincerely,  
Chris Stransky  
Amec Foster Wheeler  
Project Manager

**LESJWA BOARD MEMORANDUM NO. 814**

**DATE:** June 15, 2017  
**SUBJECT:** Regulatory Strategist and TMDL Compliance Support Services  
**TO:** LESJWA Board of Directors  
**FROM:** Mark R. Norton, P.E., Authority Administrator

**RECOMMENDATION**

Staff recommends that the Board of Directors approve Task Order No. RISK160-XX with Tim Moore of Risk Sciences for an amount not-to-exceed \$121,760 for the next two fiscal years to serve as regulatory strategist and compliance expert to the Lake Elsinore and Canyon Lake TMDL Task Force.

**BACKGROUND**

Risk Sciences has provided important regulatory compliance support and facilitation to the Lake Elsinore and Canyon Lake (LE&CL) TMDL Task Force. As such, the Technical Advisory Committee (TAC) and the TMDL Task Force have reviewed and recommended for approval a new task order with LESJWA.

Under this Task Order, Risk Sciences will continue to work closely with the scientists and technical experts who are assisting the Task Force to implement actions to address the TMDLs. In FY 2017-18 and FY 2018-19, Mr. Moore will focus his effort to support the Task Force on the following tasks:

- 1) Complete revision of the LECL TMDL.
- 2) Coordinate the regulatory approval process for the revised TMDL.
- 3) Integrate the revised TMDL into discharge permits (MS4/CWAD).
- 4) Facilitate implementation of the LEAMS and Alum offset programs.
- 5) Assist development of triennial TMDL progress report.
- 6) Prepare for and participate in 16 Task Force meetings.

This proposed scope-of-work and cost estimate is smaller than our previous (FY15-17) contract with the Task Force. After the TMDL revision is complete in FY17-18, the level of effort required to support the Task Force is expected to diminish by approximately 25% and we are not proposing any increase in rates. Risk Sciences will not undertake work or submit invoices exceeding our contract value without prior written authorization from LESJWA. A detailed summary of key tasks and a suggested schedule for FY 2017-18 and FY 2018-19 is included with the attached project Task Order.

**BUDGET IMPACT**

All funding for this Task Order is provided by the TMDL Task Force for an amount not-to-exceed \$121,760. All staff contract administration time for this work will be taken from the TMDL budget and funded by the TMDL stakeholders.

MN/RW/dm

Attachment:

1. Risk Sciences Task Order No. RISK160-09



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**V. COMPENSATION**

For all services rendered by Consultant pursuant to this Task Order, Consultant shall receive a total not-to-exceed sum of **\$121,760** including travel expenses for Fiscal Years 2017-18 and 2018-19. Payment of the fees and expenses incurred shall be made within 30 days upon receipt of timely and proper invoices from Consultant, as required by the above-mentioned Agreement. Each such invoice shall be provided to LESJWA by Consultant within 15 days after the end of the month in which the services were performed.

The compensation to be paid herein is subject to LESJWA/SAWPA's receipt of funds for this Task Order from third parties. The Consultant shall limit activities to ensure not to expend funds that have been collected, and shall curtail activities, as required, to stay within the funds available. LESJWA/SAWPA will endeavor to obtain the funds needed to fully fund the scope of work.

**IV. LESJWA LIAISON**

Mark Norton and/or Rick Whetsel shall serve as liaison between LESJWA and Consultant.

**VI. CONTRACT DOCUMENTS PRECEDENCE**

In the event of a conflict in terms between and among the contract documents herein, the document item highest in precedence shall control. The precedence shall be:

- a. The Agreement for Services by Independent Consultant/Contractor.
- b. The Task Order or Orders issued pursuant to the Agreement, in numerical order.
- c. Exhibits attached to each Task Order, which may describe, among other things, the Scope of Work and compensation therefore.
- d. Specifications incorporated by reference.
- e. Drawings incorporated by reference.

**In witness whereof**, the parties have executed this Task Order on the date indicated below.

**LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY**

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

**RISK SCIENCES**

\_\_\_\_\_  
Timothy F. Moore, President Date

ATTACHMENT A



26 April 2017

Rick Whetsel  
 Lake Elsinore - San Jacinto Watersheds Authority  
 11615 Sterling Ave.  
 Riverside, CA 92503

**RE: Proposed Scope-of-Work for the LECL TMDL Task Force in FY17-18 and FY18-19**

*Dear Mr. Whetsel:*

Per your request, I have prepared the following Scope-of-Work and cost estimate to support the Lake Elsinore/Canyon Lake Nutrient TMDL Task Force for the next two fiscal years (FY17-18 and FY18-19).

As in the past, my role will be to serve as regulatory strategist and compliance expert for the Task Force. In that role, my foremost responsibility is to develop TMDL implementation strategies that assure compliance with the Basin Plan, the MS4 discharge permit, and the Conditional Waiver of Agricultural Discharge (CWAD). A more detailed Work Breakdown Structure (WBS) is provided in Table 1.

**Table 1: Work Breakdown Structure for the Lake Elsinore/Canyon Lake TMDL Task Force**

<b>Task</b>	<b>Description</b>	<b>Level-of-Effort</b>
1	Complete revision of the LECL TMDL	88 hours
2	Coordinate the regulatory approval process for the revised TMDL	76 hours
3	Integrate the revised TMDL into discharge permits (MS4/CWAD)	48 hours
4	Facilitate implementation of the LEAMS and Alum offset programs	36 hours
5	Assist development of triennial TMDL progress report	24 hours
6	Prepare for and participate in 16 Task Force meetings	64 hours
<b>Total</b>		<b>336 hours</b>

Based on my previous ten years' experience serving the LECL Task Force, I estimate that about 16 hours/month in FY17-18 and 12 hours/month in FY18-19 will be required to fulfill the aforementioned responsibilities. The professional fee will remain unchanged at \$315/hour plus travel expenses (airfare, hotel and rental car only). Travel expenses are shared among several different projects in the area whenever possible. No mark-up is applied to travel expenses and Risk Sciences does not seek any reimbursement for meals. All other direct expenses (phones, postage, photocopies, etc.) are already included in the hourly fee and are not itemized on the invoice. The total estimated cost, including travel expenses, is shown in Table 2.

**Table 2: Proposed Compensation for FY17-18 and FY18-19**

Description	Amount
Professional Fees (336 hours * \$315/hr.)	\$105,840
Travel Expenses (16 trips * \$995/trip)	\$15,920
<b>2-Year Total</b>	<b>\$121,760</b>

The proposed scope-of-work and cost estimate is smaller than our previous (FY15-17) contract with the Task Force. After the TMDL revision is complete in FY17-18, the level of effort required to support the Task Force is expected to diminish by approximately 25% and we are not proposing any increase in rates. The level of effort and proposed budget does assume that the regulatory approval process for the revised TMDL will not be unusually difficult. However, if the process becomes controversial or contentious, it may be necessary to seek additional budget approval from the TMDL Task Force at a later date. Risk Sciences will undertake work or submit invoices exceeding our contract value without prior written authorization from SAWPA.

The Task Force has contracted with CDM-Smith, Inc. to prepare key technical reports and CEQA documents needed to support the revised TMDL. Risk Sciences will assist CDM-Smith in accordance with direction from Task Force.

I genuinely appreciate the opportunity to continue supporting with the Lake Elsinore/Canyon Lake TMDL Task Force and look forward to working together for two more years.

*Respectfully submitted,*



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## **LESJWA BOARD MEMORANDUM NO. 815**

**DATE:** June 15, 2017  
**SUBJECT:** TMDL Task Force 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 this status report on the Lake Elsinore and Canyon Lake TMDL Task Force.

### **BACKGROUND**

The Lake Elsinore and Canyon Lake TMDL Task Force last met on May 16, 2017 and is expected to meet again on June 13, 2017. CDM Smith is continuing their effort to update and revise the TMDL. The consultants shared with the Task Force the latest evaluations regarding Linkage Analyses, Numeric Targets, including discussion about a reference watershed approach, the reference condition for Lake Elsinore and Canyon Lake, and TMDL targets. Past meetings covered Source Assessment including discussion of Internal Loads – Sediment Nutrient Flux, Supplemental Water and Total Nutrient Budget. The consultant team has completed and submitted the final drafts to stakeholders of the Introduction (Chp 1), Problem Statement (Chp 2) and Appendix A – Supporting Biological Data. The consultant team is currently working to finalize comments on the revised Numeric Targets (Response and Causal) (Chp 3), the Source Assessment (Chp 4) and the Wasteload and Load Allocations (Chp 6) chapters. On June 7<sup>th</sup> the linkage Analysis (Chp 5) was released for review by stakeholders. The TMDL Technical Report is on schedule to be completed and ready for submittal to Regional Board in December 2017.

Amec Foster Wheeler (FW) continues to implement the Phase 2 TMDL compliance monitoring program as well as commencing the blue green algae monitoring also known as harmful algae blooms. The Annual LE&CL TMDL Water Quality for 2016-2017 is expected to be completed and submitted to the Regional Board by August 2017. The Task Force reviewed the benefits of increased resolution of satellite photography to evaluate water quality at both lakes by correlating water quality sampling with infrared photography that can detect chlorophyll A and blue green algae.

The new operation and maintenance agreement for the Lake Elsinore aeration system is now going to the three operators governing boards for approval. A final executed agreement among the three original funding partners: Riverside County, City of Lake Elsinore, and EVMWD is expected within the next month. This new agreement will clarify the provisions regarding (a) the reservation and assignment of offsets to address the three original project partners first, (b) the availability and ownership of any excess offset credits, and (c) the Terms & Conditions for licensing excess offset credits to others.

The LEAMS Licensing Agreement which was approved by the LESJWA Board on April 19<sup>th</sup> is being circulated among the other three agreement parties along with the Lake Elsinore O&M Agreement for their respective Boards approval. Upon execution, the Task Force administrator, LESJWA, will act on behalf of those LE&CL TMDL Task Force members electing to participate in the LEAMS project, and will commence collection and disbursement of all fees to license excess offset credits. Both the Lake Elsinore O&M Agreement and the LEAMS Licensing Agreement have been shared with the Task Force on multiple occasions for their review and input.

Alum was last applied in Canyon Lake during the week of February 8<sup>th</sup> –10<sup>th</sup> with good results. LESJWA received no complaints from residents. The next alum application is preliminarily scheduled for September or October of 2017. As with all alum applications, a technical advisory group will meet two months prior to the next application to confirm with all parties the logistics, dosages, locations, and QA/QC.

**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