



**REGULAR BOARD MEETING AGENDA**  
**BOARD OF DIRECTORS MEETING**  
**MALAGA COUNTY WATER DISTRICT**  
**3580 SOUTH FRANK STREET**  
**FRESNO, CALIFORNIA 93725**  
**Tuesday, March 28, 2017 at 6:00PM**

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in a District Board Meeting, please contact the District Office at 559-485-7353 at least 48 hours prior to the meeting, to ensure that reasonable arrangements can be made to provide accessibility to the meeting.

- ❖ Please submit all written correspondence for the Board of Directors by 12:00 pm the Friday prior to the meeting. Please deliver or mail to the District Clerk.
- ❖ Public comments are limited to three (3) minutes or less per individual per item, with a fifteen (15) minute maximum per group per item and will be heard during the communication portion of the agenda.

**1. Call to Order:**

**2. Roll Call:** President Charles Garabedian, Jr.; Vice President Salvador Cerrillo; Director Irma Castaneda; Director Frank Cerrillo, Jr.; Director Carlos Tovar, Jr.

**3. Certification:** Certification was made that the Board Meeting Agenda was posted 72 hours in advance of the meeting.

**4. Consent Agenda.** The items listed below in the Consent Agenda are routine in nature and are usually approved by a single vote. Prior to any action by the Board of Directors, any Board member may remove an item from the consent agenda for further discussion. Items removed from the Consent Agenda may be heard immediately following approval of the Consent Agenda or set aside for discussion and action after Regular Business.

- a. Minutes of the Regular Board Meeting of March 14, 2017.
- b. General Manager's Consent Agenda Report
- c. Recreation Report

Recommended action: To approve the Consent Agenda as presented or amended.

**Motion by:** \_\_\_\_\_; **Second by:** \_\_\_\_\_

**5. Old Business:** No old business for this meeting.

**6. New Business:**

- a. **Energy Improvements.** The District received proposals for lighting improvements at the park and recreation center, the WWTF, and the District office. The proposals offer lighting improvements at no money down, to be paid for by energy savings. The Park/recreation center improvements are \$128,257.30 with a payback period of 9.49 years. The WWTF improvements are \$25,109.80 with a payback period of 3.14 years. The office improvements are (TBD) with a (TBD) payback period.

**Recommended action:** To approve the proposals and authorize the General Manager to submit documentation as required.

**Motion by:** \_\_\_\_\_; **Second by:** \_\_\_\_\_.

**7. Sherriff Report.** Community Service Officer, Elaine Montoya, will be presenting the first quarterly Community Safety Report.

**8. Engineer Reports:**

- a. District Engineer Report. No new report for this meeting.
- b. CDBG Engineer Report: No new report for this meeting.

**9. General Manager's Report:**

- a. A discussion of the rate of increase in source water EC.
- b. A discussion of the restroom repairs at the District office.

**10. President's Report:**

**11. Vice President's Report:**

**12. Director's Reports:**

**13. Legal Counsel Report:**

**14. Communications:**

- a. Written Communications: None for this meeting.

**15. Closed Session:**

**16. Adjournment:**

**Motion by:** \_\_\_\_\_, **Second by:** \_\_\_\_\_

**Certification of Posting**

I, Norma Melendez, District Clerk of the Malaga County Water District, do hereby certify that the foregoing agenda for the Regular Meeting of the Board of Directors of March. 28, 2017 was posted for public view on the front window of the MCWD office at 3580 S. Frank Street, Fresno Ca 93725, at 5:00P.M. On 03/24/2016.

*Norma Melendez*

Norma Melendez, District Clerk



4.9

**REGULAR BOARD MEETING MINUTES**  
**BOARD OF DIRECTORS MEETING**  
**MALAGA COUNTY WATER DISTRICT**  
**3580 SOUTH FRANK STREET**  
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**3. Certification:** Certification was made that the Board Meeting Agenda was posted 72 hours in advance of the meeting.

**4. Old Business:**

a. **Mid-Year Budget Review.** Continued from the previous meeting. The mid-year budget report has been reformatted into a version more similar to the old version for clarification. The mid-year budget report is submitted for review and discussion.  
**No reportable action.**

b. **Public Hearing of Ordinance No. 2017-1:** Continued from the previous meeting. An ordinance repealing and reenacting Chapter 1 of Title V of the Malaga Code to require all residents and commercial properties within the District to receive solid waste services from the District. Having a single service provider for all District accounts will enable the District to manage accounts more efficiently and conveniently for all customers.

**Recommended action:** To conduct the public hearing and approve and adopt Ordinance 2017-1.

**Public Hearing concluded at 6:34 p.m.**

**Motion by Vice President Cerrillo; Second by Director Tovar, Jr., and by a unanimous vote to approve and adopt Ordinance 2017-1.**

**Motion to add Resolution 3-14-2014: SJVAPCD Electric Vehicle Grant by Vice President Cerrillo, Second by Director Cerrillo, Jr. and by a unanimous vote.**

c. **Resolution 3-14-2017: SJVAPCD Electric Vehicle Grant.** An application for a grant from the SJCAPCD has been prepared for electric non-emission vehicles. The application is for five vehicles; two utility (park and WWTF), two on-road (meter reading and pretreatment), and one tug (recreation).

**Recommended action:** That the application be approved as presented or amended and that the General Manager be authorized to complete and submit the application.

**Motion by Director Cerrillo, Jr., Seconded by Director Castaneda to approve application and to authorize the General Manager to complete and submit the application.**

**5. New Business:**

- a. **Request for Proposals: Fiscal Feasibility Study for an Incorporated City of Malaga.**  
An RFP has been prepared to request bids for a fiscal analysis to make various determinations as to the feasibility of reorganizing the Malaga County Water District to the City of Malaga.

**Recommended action:** To approve and publish the RFP as presented or amended.

**Motion by Vice President Cerrillo, Second by Director Tovar, Jr. to approve and publish the RFP as presented.**

**6. Recreation Reports:** To be submitted at the meeting.

Recreation Center Director, Romana Campos, reported that the ceramic room is now empty and in the process of renovation for the future multimedia room. Recreation Committee member, Maria Castaneda, came to the board of directors to ask for donations for the upcoming 50's dance. Director Cerrillo, Jr. has made a donation of \$25.00. President Garabedian, Jr. will be making a door prize donation.

**7. Engineer Reports:**

- a. District Engineer Report.  
i. **Groundwater Monitoring Well Installation.** Drilling is complete. Development of the wells, water quality sampling, and a final report are pending. For information.
- b. CDBG Engineer Report: No new report for this meeting.

**8. General Manager's Report:**

- a. Report on the meeting with FID for groundwater recharge in Malaga.  
b. Report on the meeting with Fresno County regarding commercial solid waste service  
c. Department reports

**9. President's Report:**

President Garabedian will have a meetings with Oliver Baines and Jose Antonio Ramirez.

**10. Vice President's Report:**

No new report for this meeting.

**11. Director's Reports:**

Director Cerrillo, Jr. attended the Malaga Gladiators sign-ups on Saturday March 4, 2017. There was good attendance for the event.

Director Castaneda suggests that the indoor/outdoor yard sales be promoted weeks in advance to promote higher attendance from the community and surrounding areas.

**12. Legal Counsel Report:**

For Closed Session.

**13. Consent Agenda.** The items listed below in the Consent Agenda are routine in nature and are usually approved by a single vote. Prior to any action by the Board of Directors, any Board member may remove an item from the consent agenda for further discussion. Items removed from the Consent Agenda may be heard immediately following approval of the Consent Agenda or set aside for discussion and action after Regular Business.

- a. Minutes of the Regular Board Meeting of February 28, 2017.
- b. Financial statement and accounts payable reports.

Recommended action: To approve the Consent Agenda as presented or amended.

**Motion by Vice President Cerrillo; Second by Director Cerrillo, Jr. to approve Consent Agenda as presented.**

**14. Communications:**

- a. Written Communications:
- b. Public comments.

**15. Closed Session: 7:48 p.m.**

- a. Ongoing litigation; Malaga County Water District - vs – SWRQCB.

**16. Adjournment:**

**Motion by Vice President Cerrillo, Second by Director Tovar, Jr. to adjourn the meeting at 8:06 p.m.**



*James D. Anderson*  
*General Manager*

28 March 2017

## General Manager's Consent Agenda Report

### Personnel

- Routine performance counselling performed with one staff member
- 34 applications were received for interns. Many applicants are highly qualified.

### Equipment

- The District procured an 8'x17' flatbed trailer to replace the one that was scrapped.

### Delinquent Accounts

- A delinquent accounts report is attached.

### Sewer/Pretreatment

- Collection system maintenance program has begun
- The new operations office is completed. Contractors are in the process of moving SCADA.
- Monitoring wells are drilled and being completed.
- New pond gates are installed.
- Enhanced sampling for pretreatment local limits has begun.
- Monitoring/compliance reports submitted.

### Water

- Inland Star meter quit giving readings. The 3" valve to the meter was shut off but the facility still has water. We're tracking down where they are receiving unmetered water.
- Well 6 was out of service 15-17 March due to a PG&E malfunction
- Monitoring/compliance reports submitted.

### Meetings/Other

- CHSRA and MCWD will meet again to discuss property acquisition.
- During the solid waste meeting with the county, it was mentioned that MCWD may be providing water and wastewater services to HSR and Easton CSD.
- The District will meet again soon with GSI. The primary consultant, Paul Sorenson, was unavailable for about 6 weeks due to his wife's sudden illness. She passed away Sunday, 19 March.
- Met with Sally Tripp to complete application for USDA grant for rec center multi-media improvements.
- Application for SJVAPCD grant for 5 electric vehicles has been submitted.
- Jeanne Lotts lives next to the Well 5 site and asked whether the District would be willing to share the cost of a mutual fence to separate the properties.

8. Estimated rebate from the Utility is subject to utility approval with operational savings to be determined upon finalization of the project scope.



5757 Pacific Avenue, Suite 220  
 Stockton, California 95207  
 Ignacio Robles, P.E.

ID Location		Existing System			
#	Area	Fixture Type	Existing Qty	Input Watts	Kw
1	Interior	32W Two Lamp 4' T8 Surface-Mount	1	60	0.06
2	Interior	32W Three Lamp 4' T8 Surface -Mount	4	88	0.35
3	Interior	32W Four Lamp 4' T8 Surface-Mount	5	112	0.56
4	Interior	40W Two Lamp 4' T12 Surface-Mount	4	88	0.35
5	Interior	32W Two Lamp 4' T8 Vapor-Tight Surface-Mount	35	60	2.10
6	Interior	32W Two Lamp 4' T8 Lens	6	60	0.36
7	Interior	54W Four Lamp 4' T5 Strip	4	234	0.94
8	Interior	40W Four Lamp 4' T12 Strip	12	144	1.73
9	Exterior	400W HID Area Light	2	458	0.92
10	Exterior	400W HID Floodlight	22	458	10.08
11	Exterior	1000W HID Floodlight	1	1,080	1.08
12	Exterior	250W HID Wallpacks	4	290	1.16
		Totals	100		19.68

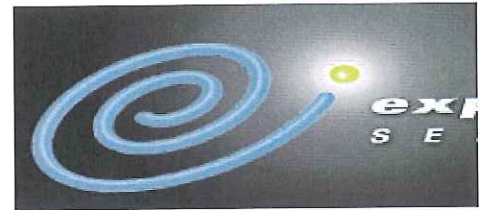
### Operating Schedi

Table 1 shows the I  
while employees wo

Day	
Monday	8:00
Tuesday	8:00
Wednesday	8:00
Thursday	8:00
Friday	8:00
Saturday	8:00
Sunday	8:00

# Malga County Water District

3749 S. Maple Avenue  
Fresno, CA 93725



2/20/2017

## Lighting Upgrade Opportunity Report Energy Calculations

Proposed System				Energy			
Conversion	Proposed Qty	Input Watts	Kw	Burn Hours	kWh Rate	Existing Annual Energy Cost	Proposed Annual Energy Cost
40W LED Wrap Fixture	1	40	0.04	8760	\$0.150	\$79	\$53
40W LED Wrap Fixture	4	40	0.16	8760	\$0.150	\$463	\$210
40W LED Wrap Fixture	5	40	0.20	8760	\$0.150	\$736	\$263
40W LED Wrap Fixture	4	40	0.16	8760	\$0.150	\$463	\$210
40W LED Wrap Fixture	35	40	1.40	8760	\$0.150	\$2,759	\$1,840
36W LED 2X4 Conversion Insert	6	36	0.22	8760	\$0.150	\$473	\$284
48W LED radial lens fixture	4	48	0.19	24	\$0.150	\$3	\$1
48W LED radial lens fixture	12	48	0.58	24	\$0.150	\$6	\$2
125W LED Pole Light	2	125	0.25	4100	\$0.150	\$563	\$154
125W LED Flood Light	22	125	2.75	4100	\$0.150	\$6,197	\$1,691
360W LED Flood Light	1	360	0.36	4100	\$0.150	\$664	\$221
80W LED Wallpack	4	80	0.32	4100	\$0.150	\$713	\$197
Totals	100		6.62			\$13,119	\$5,125

Existing Kw 19.68  
Proposed Kw 6.62  
Reduced Kw 13.06  
Savings 66%

Hours of operation Annual Hours Per

Cost
\$ 137,652
910,285
\$ 0.15

Month	C
October 2013	
November 2013	

	Hours	Day	Weeks	Days
hours stated	728	2	52	7
24/7 operations	8760	24	365	1
exterior	4368	12	52	7
Utility Exterior Hours = 4100				

November 2013	
December 2013	
January 2014	
February 2014	
March 2014	
April 2014	
May 2014	
June 2014	
July 2014	
August 2014	
September 2014	
Total/Peak	

ule

Malaga County Water District's operating hours. The facility runs for 24 hours a day  
rk during the following operating hours:

**Table 1**  
**Operating Hours**

Hours
7 AM to 5:00 PM
7 AM to 5:00 PM
7 AM to 5:00 PM
7 AM to 5:00 PM
7 AM to 5:00 PM
7 AM to 5:00 PM
7 AM to 5:00 PM



Calculations						
Saved Annual Energy Cost	kWh Existing	kWh Proposed	kWh Saved	Rebate Description	Qty	kWh Saved
\$26	526	350	175	40W LED Wrap Fixture	1.00	175.20
\$252	3,084	1,402	1,682	40W LED Wrap Fixture	4.00	1,681.92
\$473	4,906	1,752	3,154	40W LED Wrap Fixture	5.00	3,153.60
\$252	3,084	1,402	1,682	40W LED Wrap Fixture	4.00	1,681.92
\$920	18,396	12,264	6,132	40W LED Wrap Fixture	35.00	6,132.00
\$189	3,154	1,892	1,261	36W LED 2X4 Conversion Insert	6.00	1,261.44
\$3	22	5	18	48W LED radial lens fixture	4.00	17.86
\$4	41	14	28	48W LED radial lens fixture	12.00	27.65
\$410	3,756	1,025	2,731	125W LED Pole Light	2.00	2,730.60
\$4,505	41,312	11,275	30,037	125W LED Flood Light	22.00	30,036.60
\$443	4,428	1,476	2,952	360W LED Flood Light	1.00	2,952.00
\$517	4,756	1,312	3,444	80W LED Wallpack	4.00	3,444.00
\$7,994	87,463	34,168	53,295	Estimated Rebate Program		

Total consumption (kWh)	Demand (kW)	Electric Charge (\$)
90,794	161	\$15,368
85,248	120	\$11,508

Bulb Type on ENERGY STAR® Incentive valid through 3/31/2017	
A-Lamp <13 Watt	\$4
A-Lamp ≥ 13 Watt	\$5

LED E
Rebate Code
LT00
LT00

83,240	130	\$11,508
90,246	140	\$10,728
69,737	130	\$8,607
67,173	113	\$8,314
80,048	143	\$9,997
83,666	140	\$10,430
63,199	141	\$11,058
82,213	144	\$15,141
65,678	113	\$12,090
68,604	116	\$12,583
63,681	117	\$11,826
<b>910,285</b>	<b>161</b>	<b>\$137,652</b>

R or BR	\$6.50
Candelabra	\$5
MR16 ≥ 7 Watts	\$7
PAR16	\$4
PAR20	\$7
PAR30	\$14
PAR38	\$16

Rebate Code	Description	Rebate/ Unit Measure
LD146	< 25 watt LED Fixture	\$15.50/fixture
LD145	24 to < 25 watt LED Fixture	\$15.50/fixture
LD144	23 to < 24 watt LED Fixture	\$15.50/fixture
LD143	22 to < 23 watt LED Fixture	\$15.50/fixture
LD142	21 to < 22 watt LED Fixture	\$15.50/fixture
LD141	20 to < 21 watt LED Fixture	\$15.50/fixture
LD140	19 to < 20 watt LED Fixture	\$15.50/fixture
LD139	18 to < 19 watt LED Fixture	\$15.50/fixture
LD138	17 to < 18 watt LED Fixture	\$13/fixture
LD137	16 to < 17 watt LED Fixture	\$13/fixture
LD136	15 to < 16 watt LED Fixture	\$13/fixture
LD135	14 to < 15 watt LED Fixture	\$13/fixture
LD134	13 to < 14 watt LED Fixture	\$13/fixture
LD133	12 to < 13 watt LED Fixture	\$13/fixture
LD132	11 to < 12 watt LED Fixture	\$11/fixture
LD131	10 to < 11 watt LED Fixture	\$11/fixture
LD130	9 to < 10 watt LED Fixture	\$11/fixture
LD129	8 to < 9 watt LED Fixture	\$8/fixture
LD128	7 to < 8 watt LED Fixture	\$8/fixture
LD127	< 7 watt LED Fixture	\$8/fixture

LT00  
LT00  
LT01  
LT01  
LT01  
LT01  
LT01  
LT01  
LT01

2x4 LI

Reb  
Code

LT01

LT01

2x2 LI

Reb  
Code

LT01

LT01

1x4 LI

Reb  
Code

LT01

LT01

\*Rebat

### Utility Rebates

Rebate Per Type	Peak Rebate \$150 per kW reduced	Total Estimated Rebate Value	Total Custom Estimated Rebate Value	Total Distributor Estimated Rebate Value
\$ 0.08	\$ 3.00	\$ 17.02	\$ 17.02	\$ -
\$ 0.08	\$ 28.80	\$ 163.35	\$ 163.35	\$ -
\$ 0.08	\$ 54.00	\$ 306.29	\$ 306.29	\$ -
\$ 0.08	\$ 28.80	\$ 163.35	\$ 163.35	\$ -
\$ 0.08	\$ 105.00	\$ 595.56	\$ 595.56	\$ -
\$ 36.00	\$ -	\$ 216.00	\$ -	\$ -
\$ 0.08	\$ 111.60	\$ 113.03	\$ 113.03	\$ -
\$ 0.08	\$ 172.80	\$ 175.01	\$ 175.01	\$ -
\$ 125.00	\$ -	\$ 250.00	\$ -	\$ -
\$ 125.00	\$ -	\$ 2,750.00	\$ -	\$ -
\$ 150.00	\$ -	\$ 150.00	\$ -	\$ -
\$ 80.00	\$ -	\$ 320.00	\$ -	\$ -
		\$ 4,899.61	\$ 1,533.61	\$ -
Custom Rebate \$2k min		\$ (1,533.61)		
Distributor Rebate		\$ -		
Deemed Rebate		\$ 3,366.00		

### Exterior Area Lighting Rebates

Item	Description	Rebate/ Unit Measure
07	Install > 500-750 watt LED Fixture	\$200/fixture
08	Install > 750-1000 watt LED Fixture	\$450/fixture

08	Install > 265-500 watt LED Fixture	\$150/fixture
09	Install > 225-265 watt LED Fixture	\$125/fixture
10	Install > 192-225 watt LED Fixture	\$100/fixture
11	Install > 150-192 watt LED Fixture	\$80/fixture
12	Install > 110-150 watt LED Fixture	\$70/fixture
13	Install > 70-110 watt LED Fixture	\$60/fixture
14	Install > 50-70 watt LED Fixture	\$50/fixture
15	Install 0-50 watt LED Fixture	\$40/fixture

#### ED Integrated Retrofit Kit for Ambient Interior Commercial Spaces

Rate	Description	Rebate/ Unit Measure
54	$\geq 110$ and $< 125$ LPW	\$6/kilolumen* (max \$27)
55	$\geq 125$ LPW	\$8/kilolumen* (max \$36)

#### ED Integrated Retrofit Kit for Ambient Interior Commercial Spaces

Rate	Description	Rebate/ Unit Measure
58	$\geq 110$ and $< 125$ LPW	\$6/kilolumen* (max \$27)
59	$\geq 125$ LPW	\$8/kilolumen* (max \$36)

#### ED Integrated Retrofit Kit for Ambient Interior Commercial Spaces

Rate	Description	Rebate/ Unit Measure
62	$\geq 110$ and $< 125$ LPW	\$6/kilolumen* (max \$27)
63	$\geq 125$ LPW	\$8/kilolumen* (max \$36)

\* capped at 4.5 kilolumens

6.a.

**Malaga Community Center Pool Area and Ballpark Lighting**  
**Malaga Community Center Building, Concession Stand, and Parking Lot**  
 3592 S. Winery Ave  
 Fresno, California 93725

**COMBO ONE SITE**  
**OBF PROGRAM PER SITE**



**Lighting Upgrade Proposal - Executive Summary**  
 5/5/2016 **REVISED 2/9/2017**

	<b>Totals</b>
Estimated Existing Annual Lighting Energy Cost	\$ 20,720.74
Estimated Proposed Annual Lighting Energy Cost	\$ 7,206.24
Estimated Annual Lighting Energy Savings	\$ 13,514.50

Utility Energy Values	
kW reduced	57.68
% reduced	66%
kWh savings	91,054
Monthly Savings \$	1,126

1st Year Estimated Operational Savings \$ 13,514.50

Pre-Incentive Project Cost	\$ 167,370.09
Estimated Utility Incentive	\$ (13,250.00)
Project Cost	\$ 154,120.09
Trade Association Subsidy	\$ (25,862.80)
Net Project Cost	\$ 128,257.30
Payback	Years 9.49
	Months 113.88

Year	Annual Savings
1	\$ 13,514.50
2	\$ 13,514.50
3	\$ 13,514.50
4	\$ 13,514.50
5	\$ 13,514.50
Total	\$ 67,572.50

**City Prevailing Wage Project**

**PROJECT CAN BE COMPLETED WITH NO CAPITAL OUTLAY**

- Subject to Utility approval, you can complete this project with no capital outlay.
- The net project cost \$ 128,257 can be paid direct to a contractor through a special project financing program by the Utility.
- The project financing is provided at zero percent interest.
- The project financed amount of \$ 128,257 is repaid from energy savings.
- \$13,515 of the \$ 13,515 operational savings repays the financed amount for 114 months
- During the 114 months, the months, additional savings for maintenance and interior HVAC savings will be a benefit
- After the 114 months, you:
  - Keep all operational savings, estimated to be in excess of \$ 15,542
  - Has the lighting quality from all new fixtures.
  - Has enjoyed reduced maintenance and interior space A/C costs.
  - Will not have had out-of-pocket cost.
- Estimated rebate from the Utility is subject to utility approval with operational savings to be determined upon finalization of the project scope.



**Malaga Community Center Pool Area and Ballpark Lighting**  
**Malaga Community Center Building, Concession Stand, and Parking**

3592 S. Winery Ave  
 Fresno, California 93725

COMBO ONE SITE  
 OBF PROGRAM PER SITE

5/6/2016 **REVISED 2/9/2017**  
 Lighting Upgrade Opportunity Report  
 Energy Calculations

ID Location		Existing System			Proposed System				Energy Calculations						
#	Area	Fixture Type	Existing Qty	Input Watts	Kw	Conversion	Proposed Qty	Input Watts	Kw	Burn Hours	kWh Rate	Existing Annual Energy Cost	Proposed Annual Energy Cost	Saved Annual Energy Cost	kWh Existi
1	Pool House Interior	40w 2L T12 Box Surface-Mount	14	72	1.01	40w LED wrap	14	40	0.56	630	\$0.200	\$127	\$71	\$56	635
2	Pool House Interior	40w 2L T12 Vapor Tight Surface Mount	2	72	0.14	36w LED Vapor tight	2	36	0.07	630	\$0.200	\$18	\$9	\$9	91
3	Pool Area	19w CFL	12	21	0.25	15W A21 LED	12	15	0.18	4100	\$0.200	\$207	\$148	\$59	1,03
4	Pool Area	400w HID Shoebox	2	458	0.92	125W LED Shoebox	2	125	0.25	4100	\$0.200	\$751	\$205	\$546	3,75
5	Pool Area	400w HID Floodlight	1	458	0.46	125W LED Shoebox	1	125	0.13	4100	\$0.200	\$376	\$103	\$273	1,87
6	Ballpark	400w HID Floodlight	2	458	0.92	125W LED Shoebox	2	125	0.25	360	\$0.200	\$66	\$18	\$48	330
7	Ballpark	1000W HID Floodlight	30	1,100	33.00	350W LED Floodlight	30	350	10.50	360	\$0.200	\$2,376	\$756	\$1,620	11,88
8	Ballpark	100W HID Floodlight	10	130	1.30	20W LED Floodlight	10	20	0.20	360	\$0.200	\$94	\$14	\$79	468
9	Ballpark	1000w HID Musco	22	1,100	24.20	350W LED Musco	22	350	7.70	360	\$0.200	\$1,742	\$554	\$1,188	8,71
10	Community Center Interior	40W 2L 2'x4' T12 Lens	8	72	0.58	36w LED conversion insert	8	36	0.29	1820	\$0.200	\$210	\$105	\$105	1,04
11	Community Center Interior	40W 4L 2'x4' T12 Lens	42	144	6.05	36w LED conversion insert	42	36	1.51	1820	\$0.200	\$2,201	\$550	\$1,651	11,00
12	Community Center Interior	40W 2L 4'x12' Surface Mount	16	72	1.15	40w LED wrap fixture	16	40	0.64	1820	\$0.200	\$419	\$233	\$186	2,09
13	Community Center Gym Multi purpose room	40W 4L 4'x12' Surface Mount	25	144	3.60	110w LED new High bay fixture	25	110	2.75	1820	\$0.200	\$1,310	\$1,001	\$309	6,55
14	Community Center Interior	40W 2L 4'x12' Strip	2	72	0.14	36w LED radial lens fixture	2	36	0.07	1820	\$0.200	\$52	\$26	\$26	262
15	Community Center Interior	75W 2L 8'x12' Strip	2	130	0.26	48w LED radial lens fixture	2	48	0.10	1820	\$0.200	\$95	\$35	\$60	473
16	Community Center Exterior	26W CFL Surface Mount	2	28	0.06	15W LED Surface Mount	2	15	0.03	4100	\$0.200	\$46	\$25	\$21	230
17	Community Center Exterior	26W CFL Wall Pack	2	28	0.06	15W LED Wallpack	2	15	0.03	4100	\$0.200	\$46	\$25	\$21	230
18	Community Center Exterior	400W HID Floodlight	5	458	2.29	150W New LED Floodlight	5	150	0.75	4100	\$0.200	\$1,878	\$615	\$1,263	9,38
19	Red Exterior	400W HID Downlight	2	458	0.92	150W New LED Downlight	2	150	0.30	4100	\$0.200	\$751	\$246	\$505	3,75
20	Red Exterior	500w Quartz Halogen fixture	2	500	1.00	80watt new LED floodlight	2	80	0.16	4100	\$0.200	\$820	\$131	\$689	4,10
21	Parking Lot	400W HID Shoebox	19	458	8.70	150W LED Shoebox	19	150	2.85	4100	\$0.200	\$7,136	\$2,337	\$4,799	35,67
Totals			222		86.99	Totals	222		29.32			\$20,721	\$7,206	\$13,515	103,6

Existing Kw 86.99  
 Proposed Kw 29.32  
 Reduced Kw 57.68  
 Savings 66%

Hours of operation		Hours			
		Annual Hours	Per Day	Weeks	Days
Pool Mon-Sat		1872	6	52	6
Ball field		364	1	52	7
Ball field adjusted hrs		936	3	52	6

Exterior Lighting Hours calculation  
 public ball fields usually go from 6-11 during the winter  
 public ball fields usually go from 7-11 during the winter  
 Softball and hardball travel teams and general public

Avg Annual kWh cost  
 \$ 35,953.00  
 181584  
 \$ 0.20 per kWh

The interior pool house lighting is estimated to operate 630 hours per year.

The exterior pool house and pool area lighting is estimated to operate 4,100 hours per year.

The ballpark lighting is estimated to operate 360 hours per year.

#### Operating Schedule

Pool Area:

Error! Reference source not found, shows the pool hours, while in use

Utility Exterior Hours = 4100

Day	Hours
Monday	2:00 PM to 8:00 PM
Tuesday	2:00 PM to 8:00 PM
Wednesday	2:00 PM to 8:00 PM
Thursday	2:00 PM to 8:00 PM
Friday	2:00 PM to 8:00 PM
Saturday	2:00 PM to 8:00 PM
Sunday	

Month	Total Consumption (kWh)
October 2013	13,526
November 2013	9,658
December 2013	10,546
January 2014	9,297
February 2014	9,623
March 2014	7,748
April 2014	10,025
May 2014	14,984
June 2014	20,297
July 2014	25,311
August 2014	26,337
September 2014	24,232
<b>Total/Peak</b>	<b>181,584</b>

Hours of operation	Hours			
	Annual Hours	Per Day	Weeks	Days
Community Center hrs	1820	5	52	7
Concession stand hrs	2496	8	52	6
	0	0	52	7
Exterior	4368	12	52	7

#### Operating Schedule

##### Community Center:

Table 1 shows the community center building hours:

**Table 1**  
**Community Center Building Hours**

Day	Hours
Monday	4:00 PM to 9:00 PM
Tuesday	4:00 PM to 9:00 PM
Wednesday	4:00 PM to 9:00 PM
Thursday	4:00 PM to 9:00 PM
Friday	4:00 PM to 9:00 PM
Saturday	
Sunday	

##### The Concession Stand:

Table 2 shows the concession stand hours:

**Table 2**  
**Concession Stand Hours**

Day	Hours
Monday	10:00 AM to 6:00 PM
Tuesday	10:00 AM to 6:00 PM
Wednesday	10:00 AM to 6:00 PM
Thursday	10:00 AM to 6:00 PM
Friday	10:00 AM to 6:00 PM
Saturday	10:00 AM to 6:00 PM
Sunday	



Type	Lamp Wattage (watts)	Fixture Quantity				Total Fixture Quantity	Total Lamp Quantity
		Pool House (Interior)	Pool House (Exterior)	Pool Area	Ballpark		
Two Lamp T12 Box Surface-Mount	40	14				14	28
Two Lamp T12 Vapor-Tight Surface-Mount	40	2				2	4
CFL	19			12		12	12
LED Surface-Mount	N/A		3			3	3
HID Shoebox	400			2		2	2
HID Floodlight	400			1		1	1
HID Floodlight	400				2	2	2
HID Floodlight	1000				30	30	30
HID Floodlight	100				10	10	10
HID Musco	1000				22	22	22
<b>Total</b>		<b>16</b>	<b>3</b>	<b>15</b>	<b>64</b>	<b>98</b>	<b>114</b>

Type
Two Lamp 2' x 4' T12 Len
Four Lamp 2' x 4' T12 Len
Two Lamp 4' T12 Surface
Four Lamp 4' T12 Surface
Two Lamp 4' T12 Strip
Two Lamp 8' T12 Strip
CFL Surface-Mout
CFL Wall Pack
HID Floodlight
HID Downlight
Halogen Spotlight
HID Shoebox
<b>Total</b>

98

-3

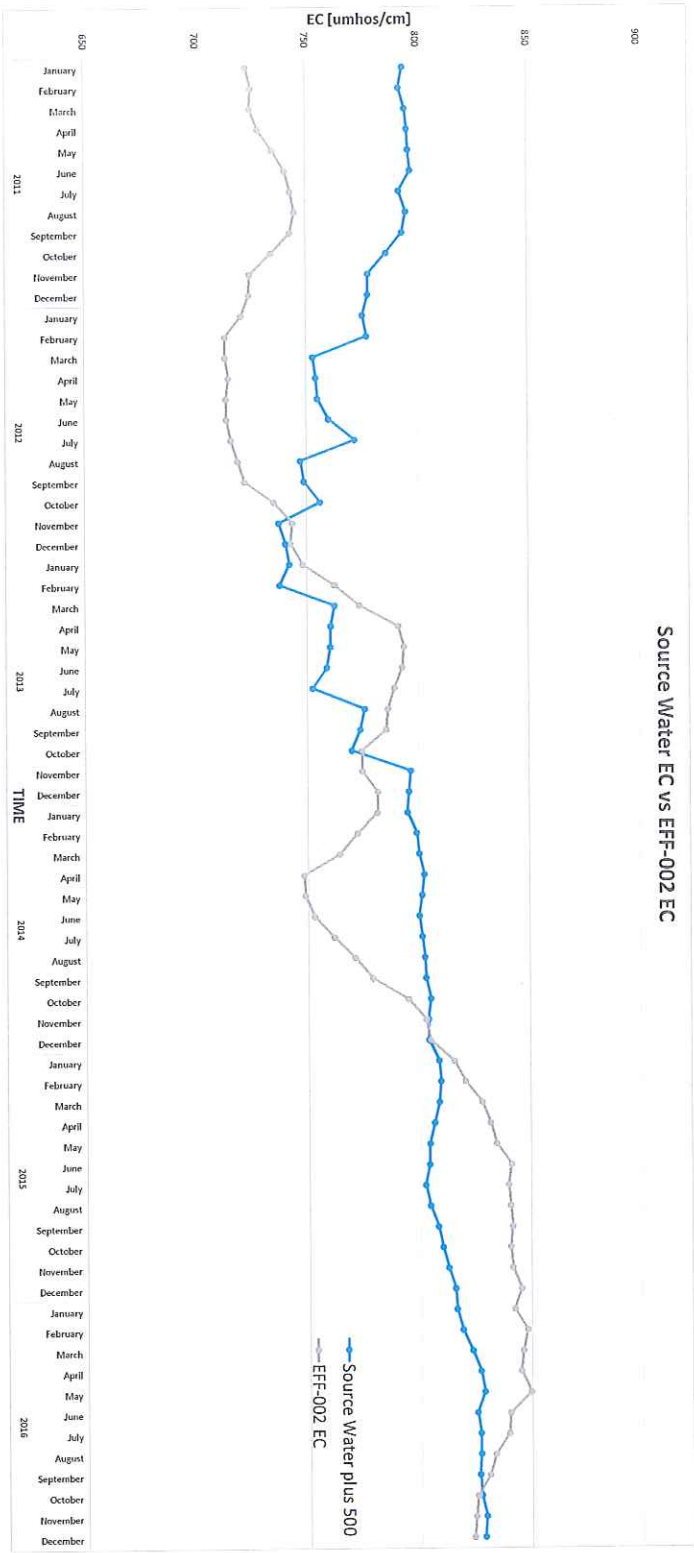
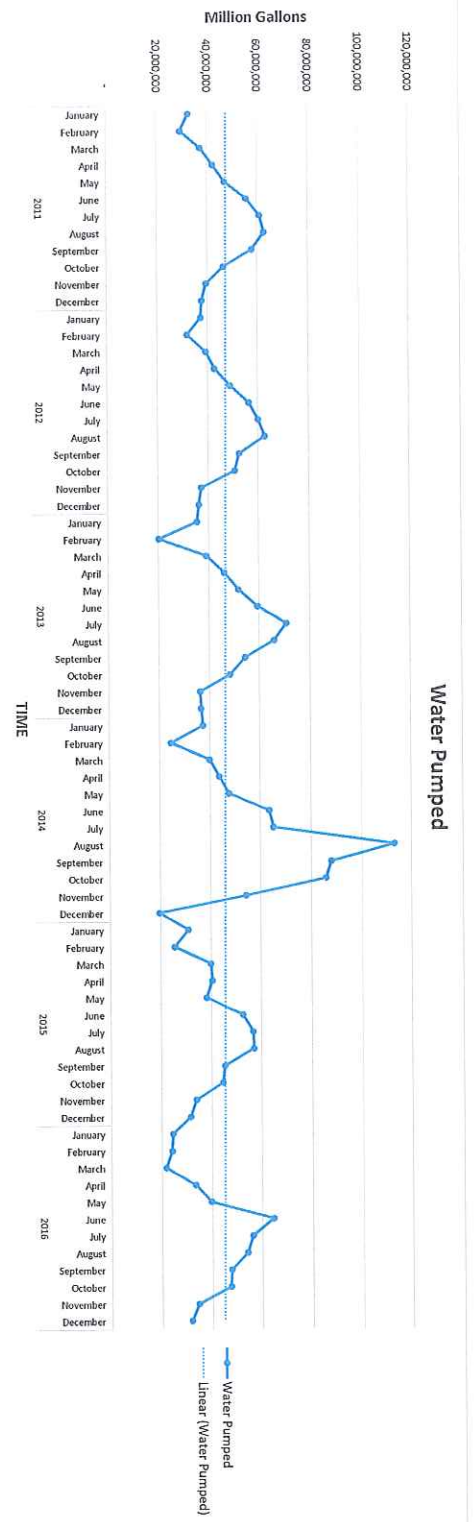
95

95

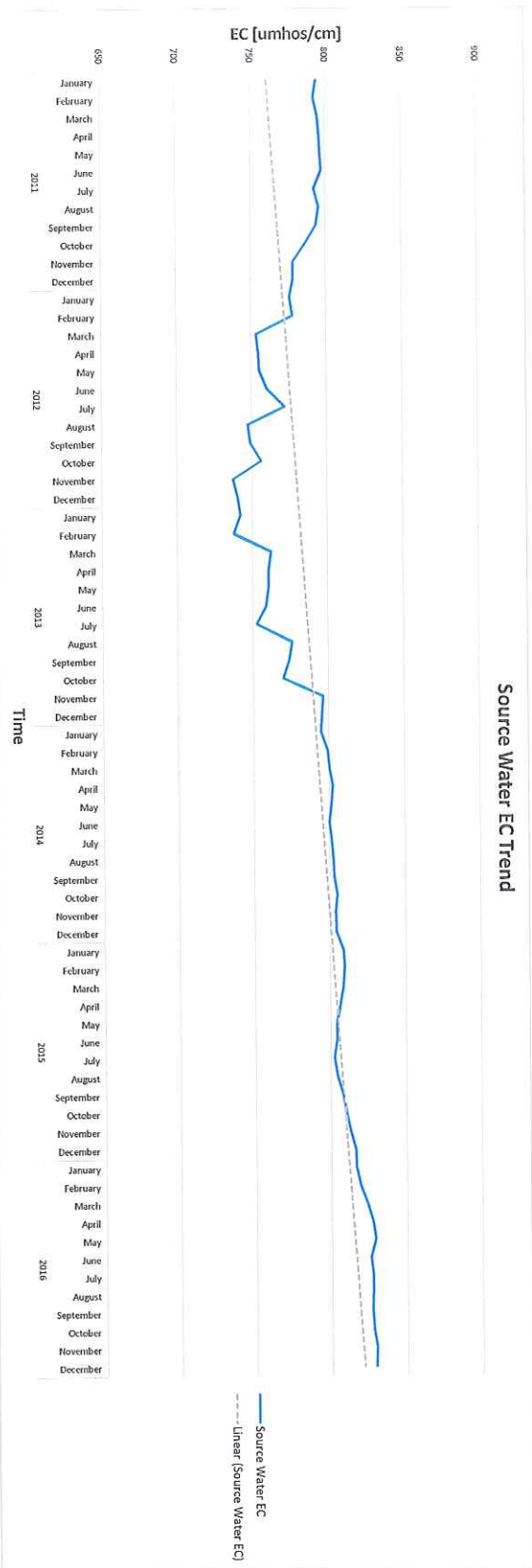
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222 sum

9.9.



# Source Water EC Trend



## EFF-002 EC Trend

