

# Lower San Joaquin River Committee



## Agenda Lower San Joaquin River Committee Meeting

**Stanislaus County Agricultural Center**

**3800 Cornucopia Way, Modesto, California 95358-9492**

Teleconference available (712) 432-0360 Participant Code: 927571#

**Thursday May 28, 2015 from 11:00 AM – 3:30 PM (Bring lunch)**

	<b>Item</b>	<b>Action</b>	<b>Time/Lead</b>
<b>1</b>	<p><b>Welcome, Introductions, Agenda Revisions/Approval, Notes, Announcements</b></p> <ul style="list-style-type: none"> <li>a. <a href="#">Introductions</a> Room/Phone</li> <li>b. Review/revise/approve agenda</li> <li>c. Review/revise/approve <a href="#">notes from April 23, 2015</a></li> <li>d. Announcements</li> <li>e. Review status of Action Items from February meeting                             <ul style="list-style-type: none"> <li>i. Work with J Brownell obtain Hoffman model runs for 100% yield protection</li> <li>ii. Anne Littlejohn/Jim Brownell will explore flexibility in MUN numbers for potential use</li> <li>iii. David Cory will check with West Stanislaus ID and Patterson ID to determine if EC of 2200 is acceptable in drought years</li> <li>iv. Mike Johnson will schedule meeting for discussion of POTW implementation language and definition of extended drought</li> <li>v. Dennis Westcot will send the VAMP language re: definition of drought</li> <li>vi. Tom will circulate new language for footnotes to Table 10</li> <li>vii. LWA will finish the appendix to the Task 4 Summary Report re: POTW contribution to salinity in the SJR</li> </ul> </li> </ul>		11:00 – 11:15 All
<b>2</b>	<p><b>Technical Services Update</b></p> <ul style="list-style-type: none"> <li>1) Task 4 Summary Report discussion <a href="#">Issues</a> and <a href="#">Language</a> to be finalized:                             <ul style="list-style-type: none"> <li>a) Sequential drought years – number of sequential</li> </ul> </li> </ul>		11:15 – 3:10 All

# Lower San Joaquin River Committee



	<b>Item</b>	<b>Action</b>	<b>Time/Lead</b>
	years and score b) Objective during drought period – Secondary MCL of 2200 EC based on short term use? c) “Relaxation” period d) Alternatives approaches for implementation - Alternatives 3 and 4  2) POTW issue <a href="#">resolution</a> - <a href="#">Modesto Effluent EC</a>  3) <u>Next steps</u> a) Schedule for Approval of Task 4 Summary Report		
<b>3</b>	<b>Real Time Management Program</b>	Informational item	3:10 – 3:20 Michael Mosley (USBR) Nigel Quinn (LBNL)
<b>4</b>	<b>Project Schedule</b> Review schedule and future activities	Informational item	3:20 – 3:25 All
<b>5</b>	<b>Review Action Items, Items for Executive Committee and <a href="#">Future</a> Agenda Items</b>		3:25 – 3:30 All

2014 - 2015 Meeting Dates

LSJR Committee Members		17-Mar	15-Apr	29-May	26-Jun	30-Jul	28-Aug	19-Sep	23-Oct	20-Nov	18-Dec	30-Jan	26-Feb	26-Mar	23-Apr	28-May
Name	Stakeholder Group															
John Beam	Grassland WD/RCD	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓	✓	
Sherman Boone	East Stanislaus RCD															
Jamie Meek	East Stanislaus RCD	✓	✓	✓	✓	✓	✓	✓				✓		✓		
Shawn Carmo	Grassland Water District						✓									
Jeanne Chilcott	CV-RWQCB															
David Cory	San Joaquin Valley Drainage Authority	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Daniel Cozad	CV-SALTS															
Jose Faria	Calif Department of Water Resources															
Mark Gowdy	State Water Resources Control Board	✓			✓	✓	✓									
Karna Harrigfeld	Stockton East Water District		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
John Herrick	South Delta Water Agency		✓						✓					✓		
Jamil Ibrahim	MWH Americas, Inc															
Jobaid Kabir	US Bureau of Reclamation															
Parry Klassen	East San Joaquin Water Quality Coalition															
Roberta Larson	Wastewater Association															
Tess Dunham	Wastewater Association/Ag industry															
Debra Liebersbach	Turlock Irrigation District								✓			✓		✓	✓	
Jim Brownell	CV-RWQCB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Richard Meyerhoff	CDM Smith															
Brandon Nakagawa	San Joaquin County															
Ric Ortega	Grassland Water District						✓									
Nigel Quinn	LBNL - USBR	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rudy Schnagl	CV-RWQCB															
Mona Shulman	Pacific Coast Producers															
Reggie Dones	US Bureau of Reclamation	✓										✓				
Ernest Taylor	Calif Department of Water Resources	✓	✓	✓	✓	✓	✓	✓	✓		✓					
Diana Waller	USDA - NRCS															
Debbie Webster	Central Valley Clean Water Association	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dennis Westcot	San Joaquin Tributary Authority	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	✓
Amanda Carvajal	Merced County Farm Bureau															
Michael Mosley	USBR		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Thaddeus Hunt	State Water Resources Control Board						✓			✓	✓	✓		✓		
Anne Littlejohn	CV-RWQCB												✓	✓	✓	
Roberta Howe	Calif Department of Water Resources															
Erich Delmas	City of Tracy													✓		
Tom Orvis	Stanislaus Farm Bureau															
Mike Johnson	LSJR Committee Manager	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Karen Ashby	LWA	✓	✓	✓	✓		✓			✓	✓	✓	✓		✓	✓
Bobby Pierce	West Stanislaus Irrigation District													✓		
Peter Rietkerk	Patterson Irrigation District	✓	✓			✓								✓		
Joe Tapia	Calif Department of Water Resources											✓				
Tom Grovhoug	LWA	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Richie Aranda	Stockton East Water District	✓														
Larry Lindsey	State Water Resources Control Board														✓	
Danielle Moss	LWA	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
John Clancy	San Joaquin Tributary Association								✓		✓					
Penny Carlo	Carollo Engineers	✓					✓	✓	✓		✓					
Mike Truchon	LWA		✓			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Dan Roberts	Twin Oaks Irrigation District	✓	✓			✓	✓	✓					✓			
Joel Herr		✓							✓	✓	✓		✓		✓	
John Dickey	Plantierra	✓		✓		✓	✓	✓	✓							
Joe McGahan	SJVDA	✓														
Diane Madsen	SJVDA	✓														
Gabriel Delgado		✓														
Dan Steiner												✓	✓			

# Lower San Joaquin River Committee



## Minutes from April 23, 2015 Meeting of the CV-SALTS Lower San Joaquin River Committee

### 1. Welcome, Introductions, Agenda Revisions/Approval, Notes, Announcements

- Meeting called to order by Co-Chair, David Cory.
- 04/23 participants are listed on the Attendance Roster.
- Dennis Westcot moved, and Nigel Quinn seconded, and the 03/26/15 minutes were approved.
- The committee reviewed the status of March action items and Announcements/Updates
  - Per Mike Johnson all action items had been addressed.

### 2. Real Time Management Program – Update

- Nigel Quinn provided updates for the program.
  - A workshop for the Technical Review Team was held 4/22. The workshop focused on the work that USBR has sponsored with 34North and Systech, and also talked about WARMF Online.
    - Anyone interested in attending these workshops should contact Nigel
  - Nigel is in the process of getting a couple more monitoring stations reporting.

### 3. Technical Services Update - Update

- Karen Ashby provided a status update on current tasks.
- Item 1 - The Task 4 Summary Report discussion. The report had been previously distributed to the committee on 4/14/15.
  - Since the committee had previously discussed sections 1-4 at length, Danielle Moss began by providing an overview of the new sections 5 and 6.
  - The committee discussed at length Dennis Westcot's comment questioning the validity of Project Alternative #6. Per Dennis the 1010 number is not feasible to implement with present irrigation practices.
    - Karen Ashby suggested that Alternative 6 be moved into Section 5.2 of the Report and the explanation for why this Alternative was rejected listed there.
    - Per Tom Grovhoug the LWA team will formalize Dennis' comment and include in the Comment Matrix and forward to Mike Johnson.
  - The committee agreed that Dan Steiner should review the Report to ensure the references used for the New Melones Operational Model results are accurate. Danielle Moss will contact Dan and forward his comments to Mike Johnson by 5/1.
  - Dennis Westcot requested a number be cited for the phrase "high quality, low TDS water," on page 29.
- Item 2 – Language for relaxation of objectives:
  - The committee agreed to use irrigation/non-irrigation vs. cold/warm season.
    - The following phrase was suggested to be added to the end of footnote a) ...."provided that such a management plan/agreement protects the beneficial uses in the river, and does not result in increased reliance on New Melones releases to achieve water quality."
  - For footnote b)
    - David and Karna will check with diverters (Bobby Pierce & Peter Rietkerk) to see if 2200 is an acceptable number given a prolonged drought condition.
      - Once that information is obtained Mike Johnson will forward to LWA to come up with the appropriate language.

## Lower San Joaquin River Committee



- Jim Brownell will explore the flexibility in the MUN numbers.
- Dennis Westcot will forward the VAMP language to the committee.

#### **4. Project Schedule**

- The committee will hold an additional meeting to finalize outstanding Task 4 issues on May 12<sup>th</sup> at 2:00 PM, in Davis at the LWA Office.

#### **5. Review Action Items: Items for Executive Committee and Future Agenda Items**

Water Year	Water Year Type	Assigned Value	2 year Value	3 Year Value	3 year with at least two C or D Years
1977	C	1	2	4	4
1978	W	5	6	7	7
1979	AN	4	9	10	10
1980	W	5	9	14	14
1981	D	2	7	11	11
1982	W	5	7	12	12
1983	W	5	10	12	12
1984	AN	4	9	14	14
1985	D	2	6	11	11
1986	W	5	7	11	11
1987	C	1	6	8	8
1988	C	1	2	7	7
1989	C	1	2	3	3
1990	C	1	2	3	3
1991	C	1	2	3	3
1992	C	1	2	3	3
1993	W	5	6	7	7
1994	C	1	6	7	7
1995	W	5	6	11	11
1996	W	5	10	11	11
1997	W	5	10	15	15
1998	W	5	10	15	15
1999	AN	4	9	14	14
2000	AN	4	8	13	13
2001	D	2	6	10	10
2002	D	2	4	8	8
2003	BN	3	5	7	7
2004	D	2	5	7	7
2005	W	5	7	10	10
2006	W	5	10	12	12
2007	C	1	6	11	11
2008	C	1	2	7	7
2009	BN	3	4	5	5
2010	AN	4	7	8	8
2011	W	5	9	12	12
2012	D	2	7	11	11
2013	C	1	3	8	8

2014	C	1	2	4	4
2015	C	1	2	3	3
			Value ≤ 4	Value ≤ 5	≤ 7 with 2 C or D
% Exception Applies to Historical Record			30.8%	20.5%	38.5%
% Critical years in Record		33.3%		13 Critical Years	
% C & D Years in Record		48.7%		6 Dry Years	
% C, D, & BN in Record		53.8%		2 Below Normal Years	

Future Water Year	Hypothetical Water Year Type	Assigned Value	2 year Value	3 Year Value	3 year with at least two C or D Years
2016	BN	3	4	5	5
2017	D	2	5	6	6
2018	C	1	3	6	6
2019	W	5	6	8	8

SJR Water Year Type	Points
Wet	5
Above normal	4
Below normal	3
Dry	2
Critical	1

3 Year Value Combinations											
Value	3	4	5	5	6	6	6	7	7	7	7
≤ 4 points	C+C+C	C+C+D									
≤ 5 points	C+C+C	C+C+D	C+D+D	C+C+BN							
≤ 6 points	C+C+C	C+C+D	C+D+D	C+C+BN	C+C+AN	C+D+BN	D+D+D				
≤ 7 points	C+C+C	C+C+D	C+D+D	C+C+BN	C+C+AN	C+D+BN	D+D+D	C+D+AN	C+BN+BN	D+D+BN	C+C+W
≤ 7 points with two C or D years	C+C+C	C+C+D	C+D+D	C+C+BN	C+C+AN	C+D+BN	D+D+D	C+D+AN		D+D+BN	C+C+W

2 Year Value Combinations									
Value	2	3	4	4	5	5	6	6	6
≤ 3 point	C+C	C+D							
≤ 4 point	C+C	C+D	C+BN	D+D					
≤ 5 point	C+C	C+D	C+BN	D+D	C+AN	D+BN			
≤ 6 point	C+C	C+D	C+BN	D+D	C+AN	D+BN	C+W	D+AN	BN+BN



CV-SALTS - Lower San Joaquin River Committee  
 Development of a BPA for Salt and Boron in LSJR  
**Alternative Approaches to Implementation of Proposed Water Quality Objective**

At the March 26, 2015 meeting, the Lower San Joaquin River Committee (LSJRC) selected Table 1 as its Preferred Water Quality Objective for EC for the Lower San Joaquin River (LSJR) Reach 83. The footnotes have been developed in response to direction received at the March 26<sup>th</sup> and April 23<sup>rd</sup> meetings.

**Table 1: Tiered EC Objectives for Seasonal and Water Year Considerations for LSJR – Reach 83 (µmhos/cm)<sup>a,c,d</sup>**

Season	Water Year Type				
	Wet	Above Normal	Below Normal	Dry	Critical
<b>Irrigation Season</b>					
March – Oct	1,350	1,350	--	--	--
March – June	--	--	1,350	1,350	1,550
July – Oct	--	--	1,550	1,550	1,550
<b>Non-irrigation Season<sup>b</sup></b>					
Nov – Feb	1,550	1,550	1,550	1,550	1,550

- a. The EC objectives are a 30-day running average.
- b. During the non-irrigation season, an EC water quality objective exceeding 1,550 µmhos/cm may be allowed under a Regional Board-approved river management plan/agreement which improves salt management in the LSJR basin, provides reasonable protection of actual beneficial uses in Reach 83 during that period, and does not result in requirements for increased water quality releases from New Melones reservoir to meet the Vernalis EC objectives.
- c. During extended dry periods (defined in footnote d), the following narrative EC objective shall apply in Reach 83 in lieu of the numeric EC objectives described in Table 1: EC concentrations shall not exceed levels necessary to provide reasonable protection of the actual AGR and MUN beneficial uses in Reach 83 during that period, and does not result in requirements for increased water quality releases from New Melones reservoir to meet the Vernalis EC objectives.
- d. The SWRCB’s San Joaquin Valley Water Year Hydrologic 60-20-20 Classification shall be assigned the following indicator values: Wet – 5, Above Normal – 4, Below Normal – 3, Dry – 2, Critical – 1. These indicators will be used to determine an extended dry period as follows:
  - An extended dry period shall be when the sum of the current year’s 60-20-20 indicator and the previous two year’s 60-20-20 indicators is four (4) or less.

CV-SALTS - Lower San Joaquin River Committee  
Development of a BPA for Salt and Boron in LSJR  
**Alternative Approaches to Implementation of Proposed Water Quality Objective**

In crafting the Basin Plan amendment for adoption of this water quality objective in Reach 83, four alternative implementation approaches emerge, as described below:

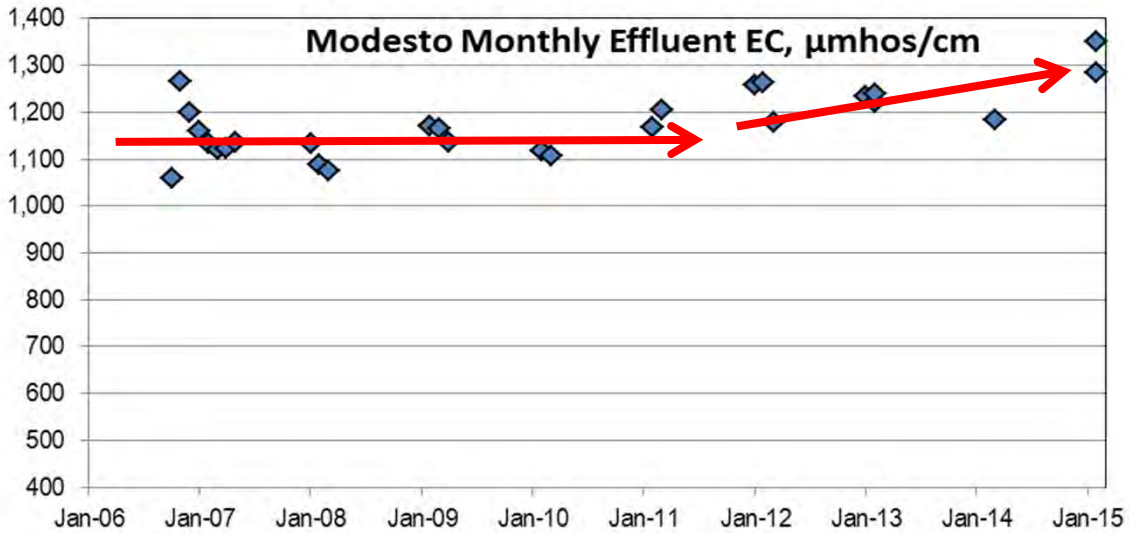
1. Adopt the Preferred alternative as numeric water quality objectives, to take effect immediately.
2. Adopt the Preferred alternative as numeric water quality objectives, to take effect on a date certain in the future when the Grasslands Bypass Project has been fully implemented (e.g. 2019).
3. Adopt the Preferred Alternative as in No. 2, with 1550  $\mu\text{mhos/cm}$  EC implemented as a numeric objective and 1350  $\mu\text{mhos/cm}$  EC implemented as a goal, both effective at a future date (e.g. 2019). Further, 1350  $\mu\text{mhos/cm}$  EC would, by default, become a numeric water quality objective at a later date certain, unless information was developed and approved by the Regional Water Board in a BPA to demonstrate that 1350  $\mu\text{mhos/cm}$  EC would not be consistently achievable upon implementation of the Grasslands Bypass Project.
4. Adopt the Preferred Alternative as in No. 2, with 1550  $\mu\text{mhos/cm}$  EC implemented as a numeric objective and 1350  $\mu\text{mhos/cm}$  EC implemented as a goal, both effective at a future date (e.g. 2019). Further, provisions would be included in the BPA to allow the 1350  $\mu\text{mhos/cm}$  EC goal to become a numeric water quality objective at a later date through a subsequent BPA. Such action would require information to be developed and approved by the Regional Water Board to demonstrate that 1350  $\mu\text{mhos/cm}$  EC would be consistently achievable in the long term.

In the above, if 1350  $\mu\text{mhos/cm}$  EC was adopted as a goal, the Basin Plan would include language that would emphasize the intent to attain the goal and would specify actions to be taken in the event the goal was not achieved. Such actions could include:

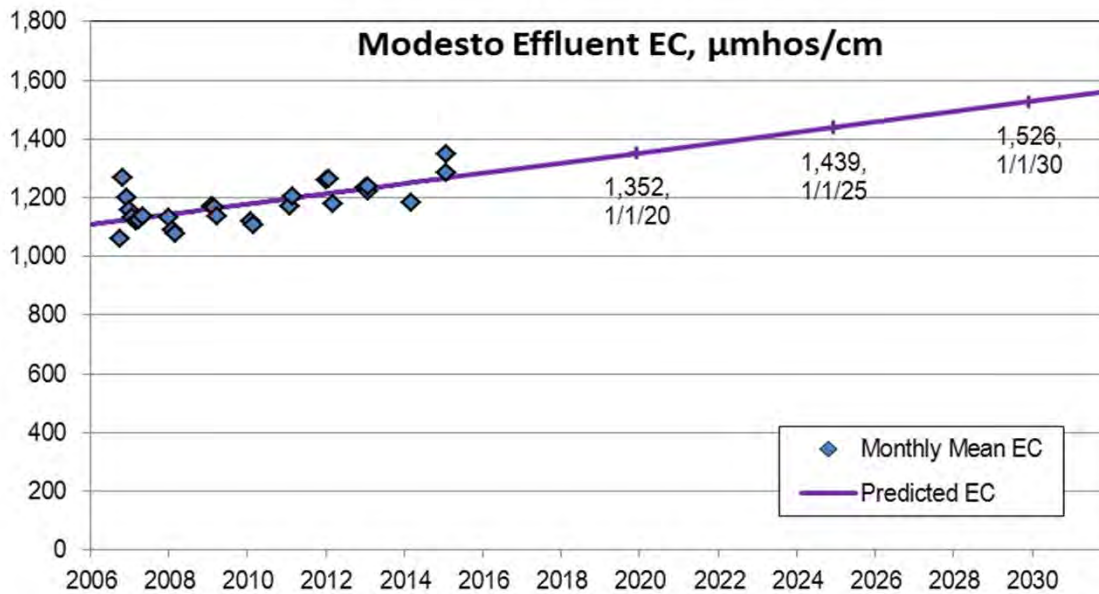
- Reporting by responsible parties including evaluation of the reason(s) for the failure to attain the goal.
- Review by Regional Water Board
- Appropriate follow up actions

Key considerations in evaluation/selection of a preferred implementation approach by the LSJRC include:

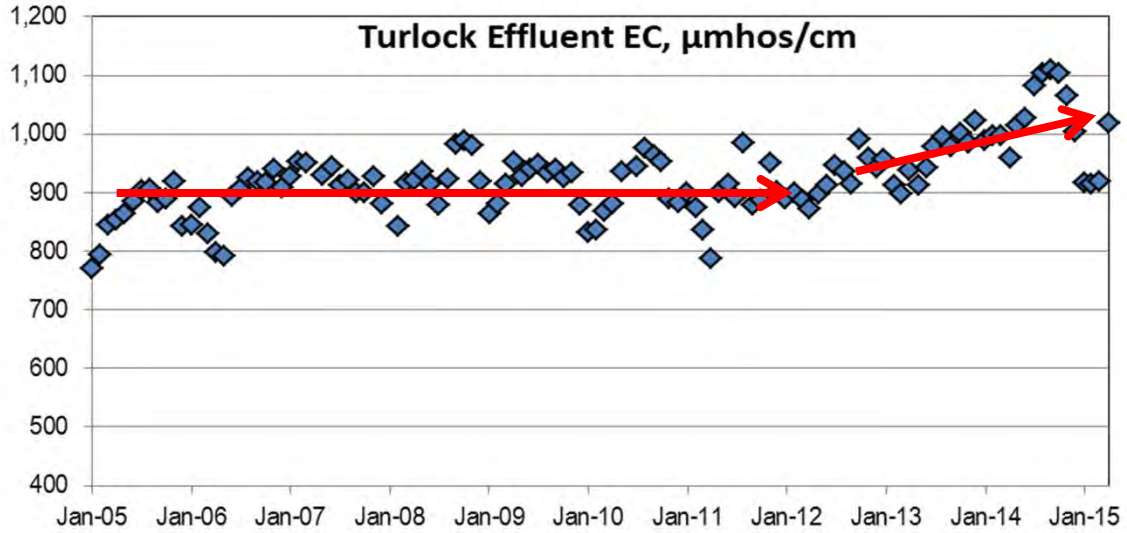
- The technical basis for 1350  $\mu\text{mhos/cm}$  EC during the March through October time frame
- The intent of the Committee with regards to 1350  $\mu\text{mhos/cm}$  EC – reliance on Planned Bundle model prediction?
- The pros and cons of adopting 1350  $\mu\text{mhos/cm}$  EC as a numeric water quality objective or as a goal
- Legal review/input by Regional Water Board counsel



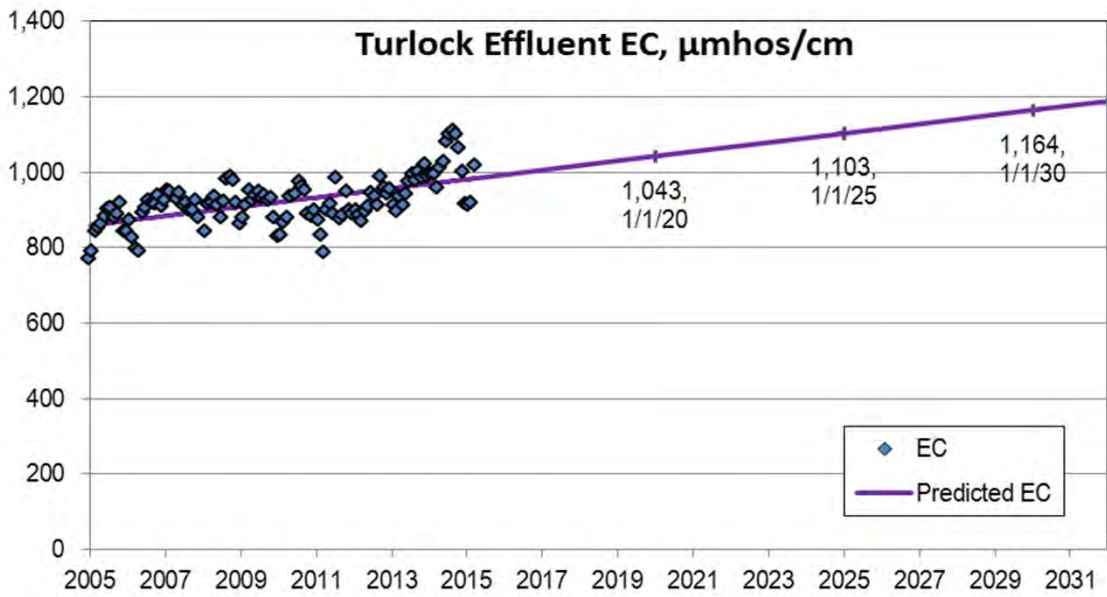
**Figure D-2: City of Modesto Monthly Average Effluent EC Concentration ( $\mu\text{mhos/cm}$ ) – January 2006 through January 2015.**



**Figure D-3: Extrapolation of City of Modesto Monthly Average EC through the Year 2030 Based on Effluent EC Measured from January 2006 through January 2015.**

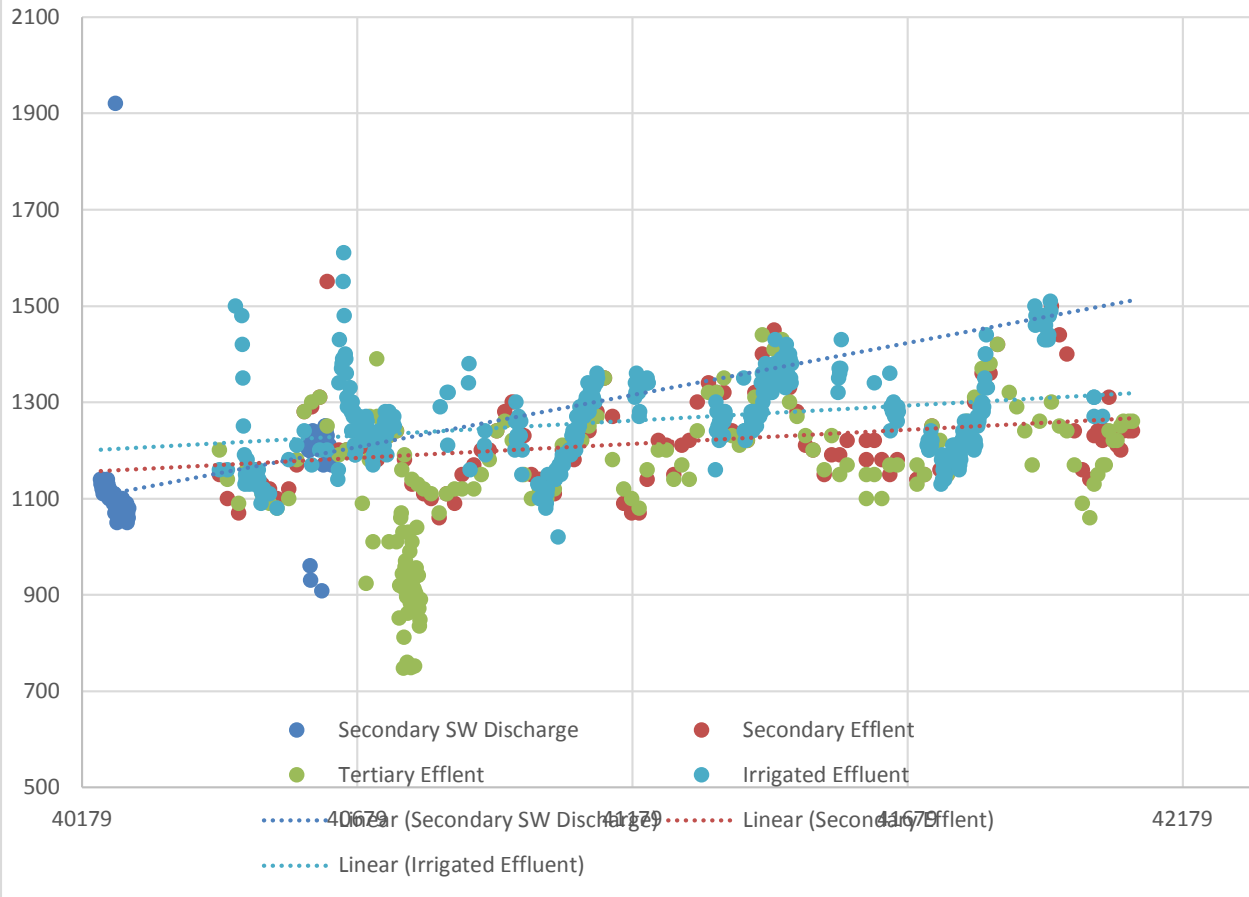


**Figure D-4: City of Turlock Monthly Average Effluent EC Concentration ( $\mu\text{mhos/cm}$ ) – January 2005 through January 2015.**



**Figure D-5: Extrapolation of City of Turlock Monthly Average EC through the Year 2030 Based on Effluent EC Measured from January 2005 through January 2015.**

### Modest EC Data at various locations 2010-2015



# CV-SALTS Meeting Calendar

## 2015

**1 January**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

**2 February**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

**3 March**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**4 April**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**5 May**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**6 June**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

**7 July**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

**8 August**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**9 September**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

**10 October**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

**11 November**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**12 December**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

### Notes

Light Red conflicts

2nd or 3rd Thursdays

Dark Green Exec Comm Policy

Fridays at 1:00 pm

Lt. Green Hatch Exec Comm Admin

Yellow Salty 5

Lower SJ River Committee

**TAC Meeting**

**1-May**

Regional Board Presents 4-16/17

State Board Presentation 1/20/15

Wednesday Meetings are DRAFT

May be held by Webinar or

in person in Sacramento

June 17th Held at Farm Bureau